Manz AG
Reutlingen

Long-form audit report
Annual financial statements and management report
31 December 2020

Translation from the German language

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

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As a separate file: Short-form audit report file consisting of a reproduction of the auditor's report along with audited financial reporting and ESEF documents

Engagement Terms, Liability and Conditions of Use
General Engagement Terms

Note: Due to rounding differences, figures in tables and cross-references may differ slightly from the actual figures (units of currency, percentages, etc.).

Abbreviations

EU Audit Regulation	Regulation (EU) No 537/2014 of the European Parliament and of the Council of 16 April 2014
Manz AG	Manz AG, Reutlingen

A. Audit engagement

In accordance with a resolution approved at the annual general meeting on 30 June 2020, the Supervisory Board of Manz AG, Reutlingen (the “Company” or “Manz AG”), engaged us to audit the Company’s annual financial statements as of 31 December 2020, together with the underlying books and records, and the management report.

In accordance with Sec. 317 (4) HGB [“Handelsgesetzbuch”: German Commercial Code], our audit also included the monitoring system in place at the Company (cf. section F).

In addition, our assurance work in accordance with Sec. 317 (3b) HGB covered the electronic reproduction of the annual financial statements and the management report prepared for publication purposes in the European Single Electronic Format (“ESEF documents”) (cf. section G.).

The “General Engagement Terms for Wirtschaftsprüfer and Wirtschaftsprüfungs-gesellschaften [German Public Auditors and Public Audit Firms]” dated 1 January 2017, which are attached to this report, are applicable to this engagement and also govern our relations with third parties in the context of this engagement. In addition, please refer to the liability provisions contained there in no. 9 and to the exclusion of liability towards third parties and the other provisions of the enclosed “Engagement Terms, Liability and Conditions of Use.”

This long-form audit report is addressed to the Company.

B. Reproduction of the auditor's report

We issued the following auditor's report on the annual financial statements, the management report and the ESEF documents:

"Independent auditor's report

To Manz AG

Report on the audit of the annual financial statements and of the management report

Opinions

We have audited the annual financial statements of Manz AG, Reutlingen, which comprise the balance sheet as at 31 December 2020, and the income statement for the fiscal year from 1 January to 31 December 2020, and notes to the financial statements, including the accounting policies presented therein. In addition, we have audited the management report of Manz AG for the fiscal year from 1 January to 31 December 2020. In accordance with the German legal requirements, we have not audited the content of the statement on corporate governance pursuant to Sec. 289f HGB ["Handelsgesetzbuch": German Commercial Code] which is published on a website stated in the management report and is part of the management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying annual financial statements comply, in all material respects, with the requirements of German commercial law applicable to business corporations and give a true and fair view of the assets, liabilities and financial position of the Company as of 31 December 2020 and of its financial performance for the fiscal year from 1 January to 31 December 2020 in compliance with German legally required accounting principles, and

- the accompanying management report as a whole provides an appropriate view of the Company's position. In all material respects, this management report is consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the management report does not cover the content of the statement on corporate governance referred to above.

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

Basis for the opinions

We conducted our audit of the annual financial statements and of the management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No 537/2014, referred to subsequently as “EU Audit Regulation”) and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the “Auditor’s responsibilities for the audit of the annual financial statements and of the management report” section of our auditor’s report. We are independent of the Company in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the annual financial statements and on the management report.

Key audit matters in the audit of the annual financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the annual financial statements for the fiscal year from 1 January to 31 December 2020. These matters were addressed in the context of our audit of the annual financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

1. Impairment of shares in affiliates and equity investments

Reasons why the matter was determined to be a key audit matter:

Shares in affiliates and equity investments as of 31 December 2020 reported in the annual financial statements of Manz AG account for approximately 21% (prior year: 27%) of total assets. For the purpose of impairment testing, the Company's executive directors determine the net realizable values for all shares in affiliates and equity investments on an annual basis using a capitalized earnings method.

The result of the valuations depends chiefly on the future cash inflows estimated by the executive directors as well as the discount rate used. Due to the materiality of the shares in affiliates and equity investments as well as the fact that impairment testing involves a large degree of judgment and uncertainties, we determined the impairment testing of shares in affiliates and equity investments to be a key audit matter.

Auditor's response:

We verified the methodology and clerical accuracy of the valuation model used.

We checked on a test basis that the planning used for the impairment tests is in line with the business plan of the Company approved by the Managing Board and ratified by the Supervisory Board. In addition, we examined the growth rates for income and expenses used to roll forward the planning by comparing with internal data. We also analyzed the budgetary planning of individual equity investments with regard to adherence to the planning in the past and obtained evidence substantiating the individual assumptions used in the budgetary planning.

We assessed the individual components used to determine the discount rate with the involvement of our internal experts by analyzing the peer group, comparing market data with external evidence and examining the clerical accuracy of the calculation.

Our audit procedures regarding the impairment of shares in affiliates and equity investments did not lead to any reservations.

Reference to related disclosures:

The disclosures by the Company on the impairment of shares in affiliates and equity investments can be found in the notes to the financial statements in the section "Accounting policies".

2. Accounting for construction contracts

Reasons why the matter was determined to be a key audit matter:

A significant part of the Company's business activities is processed via construction contracts. Revenue from construction contracts is recognized in accordance with the completed contract method when all primary and significant secondary obligations have been fulfilled. We consider the accounting for construction contracts and especially the resulting revenue recognition to be an area posing a significant risk of material misstatement and thus a key audit matter, as the recognition of revenue from individual projects in the appropriate period has a material impact on the presentation of the Company's financial performance. Additionally, the valuation of inventories at net realizable value requires the executive directors to exercise judgment and make estimates and assumptions. This particularly applies to the total contract costs, remaining costs to completion, total contract revenue including amendments as well as contract risks.

Auditor's response:

As part of our audit procedures, we obtained an understanding of the Company's internally established methods and processes of project management in the bid and execution phase of construction contracts.

As part of our substantive audit procedures, we evaluated the executive directors' estimates and assumptions based on a risk-based selection of a sample of contracts for projects. Our audit procedures included, among others, a review of the contracts and their terms and conditions including contractually agreed termination rights, penalties for delay and breach of contract as well as damages.

We further performed inquiries of project management with respect to the development of the projects, the reasons for deviations between planned and actual costs, the current estimated costs to complete the projects and the assessments of the executive directors on probabilities that contract risks will materialize. To identify anomalies in the development of margins throughout the projects' execution, we also applied data analysis procedures.

In addition, we analyzed billable revenues as of the reporting date and the corresponding cost of sales to be recognized in the income statement in order to evaluate whether income was recognized in the appropriate period. Furthermore, we obtained evidence from third parties for selected projects (e.g., project acceptance documentation, evidence on the transfer of risk and contractual terms and conditions).

Our audit procedures did not lead to any reservations relating to the accounting for construction contracts.

<u>Reference to related disclosures:</u>

We refer to the disclosures in the notes to the financial statements in the "Accounting policies" section with regard to the accounting policies applied in accounting for constructing contracts.

Other information

The executive directors and the Supervisory Board are responsible for the declaration pursuant to Sec. 161 AktG ["Aktiengesetz": German Stock Corporation Act] on the German Corporate Governance Code, which is part of the statement on corporate governance. In all other respects, the executive directors are responsible for the other information. The other information comprises the statement on corporate governance referred to above.

Our opinions on the annual financial statements and on the management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the annual financial statements, with the management report or our knowledge obtained in the audit, or

- otherwise appears to be materially misstated.

Responsibilities of the executive directors and the Supervisory Board for the annual financial statements and the management report

The executive directors are responsible for the preparation of the annual financial statements that comply, in all material respects, with the requirements of German commercial law applicable to business corporations, and that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German legally required accounting principles. In addition, the executive directors are responsible for such internal control as they, in accordance with German legally required accounting principles, have determined necessary to enable the preparation of annual financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the annual financial statements, the executive directors are responsible for assessing the Company's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting, provided no actual or legal circumstances conflict therewith.

Furthermore, the executive directors are responsible for the preparation of the management report that, as a whole, provides an appropriate view of the Company's position and is, in all material respects, consistent with the annual financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the management report.

The Supervisory Board is responsible for overseeing the Company's financial reporting process for the preparation of the annual financial statements and of the management report.

Auditor's responsibilities for the audit of the annual financial statements and of the management report

Our objectives are to obtain reasonable assurance about whether the annual financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the management report as a whole provides an appropriate view of the Company's position and, in all material respects, is consistent with the annual financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the annual financial statements and on the management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these annual financial statements and this management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the annual financial statements and of the management report, 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 opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the annual financial statements and of arrangements and measures (systems) relevant to the audit of the management report 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 systems of the Company.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the annual financial statements and in the management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the annual financial statements, including the disclosures, and whether the annual financial statements present the underlying transactions and events in a manner that the annual financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in compliance with German legally required accounting principles.

- Evaluate the consistency of the management report with the annual financial statements, its conformity with [German] law, and the view of the Company's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the annual financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Report on the assurance in accordance with Sec. 317 (3b) HGB on the electronic reproduction of the annual financial statements and the management report prepared for publication purposes

Opinion

We have performed assurance work in accordance with Sec. 317 (3b) HGB to obtain reasonable assurance about whether the reproduction of the annual financial statements and the management report (hereinafter the "ESEF documents") contained in the attached electronic file "Manz_AG_JA+LB_ESEF-2020-12-31" and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this assurance only extends to the conversion of the information contained in the annual financial statements and the management report into the ESEF format and therefore relates neither to the information contained in this reproduction nor to any other information contained in the abovementioned electronic file.

In our opinion, the reproduction of the annual financial statements and the management report contained in the abovementioned attached electronic file and prepared for publication purposes complies in all material respects with the requirements of Sec. 328 (1) HGB for the electronic reporting format. We do not express any opinion on the information contained in this reproduction nor on any other information contained in the abovementioned file beyond this reasonable assurance opinion and our audit opinion on the accompanying annual financial statements and the accompanying management report for the fiscal year from 1 January to 31 December 2020 contained in the “Report on the audit of the annual financial statements and of the management report” above.

Basis for the opinion

We conducted our assurance work on the reproduction of the annual financial statements and the management report contained in the abovementioned attached electronic file in accordance with Sec. 317 (3b) HGB and Exposure Draft of IDW Assurance Standard: Assurance in Accordance with Sec. 317 (3b) HGB on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Publication Purposes (ED IDW AsS 410). Our responsibilities under that standard are further described in the “Auditor’s responsibilities for the assurance work on the ESEF documents” section. Our audit firm applied the standards for the quality assurance system set forth in IDW Quality Control Standard: “Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis” [Requirements for Quality Control in the Practice of Public Auditors] (IDW QS 1).

Responsibilities of the executive directors and the Supervisory Board for the ESEF documents

The executive directors of the Company are responsible for the preparation of the ESEF documents including the electronic reproduction of the annual financial statements and the management report in accordance with Sec. 328 (1) Sentence 4 No. 1 HGB.

In addition, the executive directors of the Company are responsible for such internal control as they have considered necessary to enable the preparation of ESEF documents that are free from material non-compliance with the requirements of Sec. 328 (1) HGB for the electronic reporting format, whether due to fraud or error.

The executive directors of the Company are also responsible for the submission of the ESEF documents together with the auditor's report and the attached audited annual financial statements and the audited management report as well as other documents to be published to the operator of the *Bundesanzeiger* [German Federal Gazette].

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

Auditor's responsibilities for the assurance work on the ESEF documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material non-compliance with the requirements of Sec. 328 (1) HGB, whether due to fraud or error. We exercise professional judgment and maintain professional skepticism throughout the engagement. We also:

- Identify and assess the risks of material non-compliance with the requirements of Sec. 328 (1) HGB, whether due to fraud or error, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.

- Obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.

- Evaluate the technical validity of the ESEF documents, i.e., whether the electronic file containing the ESEF documents meets the requirements of Delegated Regulation (EU) 2019/815, in the version valid as of the reporting date, on the technical specification for this electronic file.

- Evaluate whether the ESEF documents enable an XHTML reproduction with content equivalent to the audited annual financial statements and to the audited management report.

Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as auditor by the annual general meeting on 30 June 2020. We were engaged by the Supervisory Board on 25 August 2020. We have been the auditor of Manz AG without interruption since fiscal year 2018.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Art. 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor responsible for the engagement

The German Public Auditor responsible for the engagement is Steffen Maurer."

C. General findings

Comments on the executive directors' assessment of the Company's position

In our opinion, on the basis of the knowledge obtained in the audit, we consider the executive directors' discussion and analysis of the Company's position and its anticipated development as presented in the annual financial statements and in the management report to be fitting.

Position of the Company and development of its business

The following aspects should be highlighted:

- Manz AG's revenue increased to EUR 78.7m (prior year: EUR 37.2m). This was due to billings of orders from German customers; revenue attributable to these customers amounted to EUR 53.7m. In 2020, further sales markets included China (EUR 4.5m), other European countries (EUR 6.9m), the US (EUR 4.6m), Taiwan (EUR 1.0m) and other countries (EUR 8.0m).

- The Electronics business segment generated revenue of EUR 15.6m (prior year: EUR 16.3m). The decrease stems from orders being postponed, primarily as a result of the coronavirus pandemic.

- Revenue of the Solar business segment increased to EUR 6.0m (prior year: EUR 0.4m) compared to the prior-year period.

- The business development in the Energy Storage business segment improved on the prior year in the reporting period. Revenue rose to EUR 48.4m (prior year: EUR 12.2m). This development is mainly thanks to the high levels of incoming orders in 2019, which were processed and delivered in 2020.

- Despite the more difficult economic conditions caused by the coronavirus pandemic, revenue in the Service business segment rose to EUR 4.0m (prior year: EUR 3.2m). The Contract Manufacturing business segment generated revenue of EUR 0.5m (prior year: EUR 1.2m).

- Work in process and finished goods increased year on year. In 2020, the increase in inventories of work in process and finished goods came to EUR 39.1m (prior year: EUR 87.0m), mainly due to further project progress with contracts in the Solar and Electronics business segments. Own work capitalized amounted to EUR 5.6m (prior year: EUR 4.2m) and mainly included capitalized development costs of EUR 4.6m.

- Total operating performance decreased by EUR 5.0m from EUR 128.4m in 2019 to EUR 123.4m in 2020.

- Other operating income amounted to EUR 5.1m in the reporting year (prior year: EUR 2.0m). This mainly includes income from reversals of impairment losses on financial assets of EUR 2.6m (prior year: EUR 0.0m) as well as income from the release of other provisions of EUR 1.2m (prior year: EUR 1.4m) – primarily income from the release of warranty provisions.

- The cost of materials decreased to EUR 71.3m in the reporting year (prior year: EUR 94.4m). Due to the lower number of large contracts which require greater material input, the ratio of cost of materials to revenue declined from 73.5% to 57.8% of total operating performance compared to the prior year.

- In the reporting year, personnel expenses increased to EUR 36.7m (prior year: EUR 34.8m) as a result of the increased number of technical employees. The ratio of personnel expenses to total operating performance also rose to 29.8% (prior year: 27.1%).

- Other operating expenses decreased to EUR 19.9m (prior year: EUR 21.5m). Among other things, this contained expenses for sales commissions of EUR 1.9m (prior year: EUR 1.2m), legal and consulting fees of EUR 1.8m (prior year: EUR 1.6m) as well as expenses for guarantee commissions of EUR 1.1m (prior year: EUR 1.2m), which are primarily attributable to customer projects from the Solar business segment.

- The financial result improved by EUR 6.8m to EUR -5.1m (prior year: EUR -11.9m) compared to the prior year. This mainly included impairment of financial assets of EUR 4.4m (prior year: EUR 11.7m) which are largely allocable to an impairment in the investment in NICE PV Research Ltd. This item also includes interest and other expenses of EUR 0.8m (prior year: EUR 0.5m). Earnings after taxes improved by EUR 27.7m to EUR -9.3m (prior year: EUR -37.0m) compared to the prior year.

- The net loss for the year decreased to EUR 9.7m (prior year: net loss of EUR 37.6m) and was offset by a withdrawal from the capital reserves of EUR 10.0m in the current fiscal year, as in the prior year.

- Total assets increased by EUR 9.9m to EUR 234.0m (prior year: EUR 224.1m). Equity decreased to EUR 44.4m (prior year: EUR 54.0m).

- Liabilities to affiliates increased from EUR 35.3m to EUR 43.5m and chiefly stem from deliveries for the large CIGS contracts. Trade payables decreased to EUR 11.8m (prior year: EUR 12.7m), while prepayments received on account of orders grew from EUR 107.9m in the prior year to EUR 117.3m. Prepayments received are mainly attributable to the ongoing CIGS contracts and in the Energy Storage business segment.

- Fixed assets decreased from EUR 86.2m to EUR 69.4m as of the reporting date. The decrease chiefly stems from the decrease in financial assets to EUR 50.0m (prior year: EUR 67.0m), which is largely attributable to investment in the subsidiary Manz Asia that was reduced by EUR 10.8m following a capital decrease as well as to the EUR 4.4m impairment in the investment in NICE PV Research Ltd. By contrast, reversals of impairment losses were recorded on shares in affiliates Manz Italy Srl. and Manz Hungary Kft. totaling EUR 2.6m.

- The cash flow from operating activities came to EUR 7.3m in fiscal year 2020 (prior year: EUR -19.2m), which primarily resulted from cash inflows from liabilities and other equity and liabilities of EUR 19.3m (prior year: EUR 8.5m) with a net loss for the year of EUR 9.7m. By contrast, there were higher cash outflows in connection with the higher inventories and other assets of EUR -10.1m (prior year: EUR -6.1m).

- The cash flow from investing activities came to EUR 9.8m (prior year: EUR -3.7m) and the cash flow from financing activities totaled EUR -0.5m (prior year: EUR -0.2m).

Anticipated development of the Company

The presentation of the anticipated development of the Company in the management report is based on assumptions which require the use of judgment. We consider this presentation to be plausible. In this context, the following aspects should be highlighted:

- For 2021, the Managing Board expects revenue and total operating performance to increase by 30% to 40% as a result of the positive industry outlook and the expected completion of the large CIGS contracts processed as of 31 December 2020. The forecast EBITDA margin is in the positive mid-single-digit percentage range and the forecast EBIT margin is expected to reach a low to medium single-digit percentage range according to the planning.

- The Managing Board expects an equity ratio of above 20% and the gearing ratio is expected to be comparable with the 2020 figure.

- The Managing Board expects increases in revenue in the Energy Storage, Electronics Solar and Service business segments. The Energy Storage business segment is anticipated to see revenue growth of at least 20%. In addition, the Managing Board anticipates a significant increase in revenue of 300% to 400% in the Electronics business segment. A slight increase in revenue is also expected in the Service business segment. The Managing Board expects a considerable increase in revenue in the Solar business segment compared to the prior year. On account of the delays caused by the customer in connection with the CIGS contracts as well as the delays as a result of the coronavirus pandemic, the Managing Board expects the final acceptance of the contracts and the payment of the remaining amount of approximately EUR 50m to be received at the end of fiscal year 2021. The Managing Board expects revenue from the Contract Manufacturing business segment to remain at the prior-year level.

- According to the Managing Board, significant risks include in particular project risks, the dependency on large customers and liquidity and financing risks as well as risks in connection with pandemics.

- The main project risks are non-compliance with schedules and not fulfilling purchase criteria as well as resulting contractual risks and mainly relate to the CIGS production and CIGS development line. The large-scale CIGS projects are currently on hold on account of construction work in the production halls that was instigated by the customer. The Managing Board assumes that this is a temporary interruption and the contracts will continue in the course of 2021. Liquidity and financing risks result from the fact that Manz AG only has small credit lines from banks and that delays in order intake or payments received could have a significant impact on liquidity in the project business. In fiscal year 2020, the Managing Board views the risk and opportunities situation with regard to the effects of the COVID-19 pandemic as having improved, whereas the current temporary interruption of work on the CIGS contracts in China is considered to be detrimental. For the other risks, the Managing Board assesses the situation as being largely unchanged on the prior year.

D. Performance of the audit

I. Subject of the audit

Under our engagement, we examined in accordance with Sec. 317 HGB whether the books and records, the annual financial statements, which comprise the balance sheet, the income statement and notes to the financial statements, and the management report comply with the relevant legal requirements. We also examined whether the Company's early warning system for the detection of risks has been properly installed and is appropriate for this purpose. Moreover, we examined whether the ESEF documents meet the requirements of Sec. 328 (1) HGB for the electronic reporting format in all material respects.

The applicable financial reporting framework for our audit of the annual financial statements comprised the accounting requirements of Secs. 242 to 256a and Secs. 264 to 288 HGB and the special requirements of the AktG. No additional accounting requirements result from the articles of incorporation and bylaws. Assessment criteria for the management report were the requirements of Secs. 289 and 289a HGB.

Pursuant to Sec. 317 (2) Sentence 6 HGB, our audit was limited to checking whether the disclosures in the statement on corporate governance pursuant to Sec. 289f (2) and (5) HGB, which was published on the Company's website and referred to in the management report, have been made.

II. Nature and scope of the audit

We conducted our audit in accordance with Sec. 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW).

The audit does not extend to providing assurance of the Company's ability to continue as a going concern or of management efficiency and effectiveness.

The basis of our audit methodology, which is risk and process oriented, is the development of an audit strategy. This strategy is based on the assessment of the economic and legal environment of the Company, its goals, strategies and business risks. The examination of the accounting-related internal control system and its effectiveness is supported by process and data analyses. We perform such analyses in order to identify any risks of material misstatement in the relevant elements of the annual financial statements and the management report, if any, and evaluate our audit risk.

Findings from our data analyses, the analysis of processes and the accounting-related internal control system were taken into account in choosing the analytical procedures and substantive testing of assets and liabilities, recognition, presentation and valuation in the annual financial statements. The audit program, which is specifically tailored to the Company, determines the key elements of the audit, the nature and scope of audit procedures as well as the timing and staffing of the audit. This approach is based on the principles of risk assessment and materiality. We therefore reached our audit opinion primarily on a test basis. We set a quantitative materiality level for the financial statements as a whole of EUR 1,200k; in determining what materiality level is relevant for the intended users, we consider the type of entity, the phase in its lifecycle, the industry in which it operates, how it is financed and whether it is profitable. We obtain an understanding of the expectations of the Supervisory Board about potential findings of material misstatements and consider these in setting the materiality level.

We examined all items of the balance sheet on a substantive basis in the reporting year. The audit methodology applied for the various balance sheet items did not change significantly in comparison to the prior year.

In addition to the key audit matters described in our auditor’s report, our audit program focused on the following audit areas:

- Analysis of the annual financial statement close process
- Valuation of inventories
- Disclosures on remuneration of the Managing Board
- Completeness and valuation of provisions

- Audit of the completeness and accuracy of the disclosures in the notes to the annual financial statements

- During the audit of the monitoring system, we investigated whether the Executive Board has taken suitable action (see Sec. 91 (2) AktG to ensure that the monitoring system installed is suitable for its purpose.

- Audit of information provided in the management report, especially prospective information

We planned the assurance work on the ESEF documents considering the first-time application of the requirements. The assurance procedures include assessing:

- the technical validity using appropriate validation software; and

- the XHTML reproduction by comparing its content with the audited annual financial statements and management report.

We also performed the following standard audit procedures:

- We used the work of an actuary engaged by the Company as evidence for our audit of the recognition of provisions for pensions and similar obligations. To the extent necessary and bearing in mind the significance of the expert's work for the purposes of our audit of the financial statements, we assessed the competence, capabilities and objectivity of the expert, gained an understanding of the expert's work and assessed the suitability of that work as audit evidence for the relevant assertion.

- We obtained balance confirmations for trade receivables for a sample chosen using statistical selection criteria.

- We obtained balance confirmations for trade payables for a sample chosen using our professional judgment.

- We obtained bank confirmations.

- We requested and received confirmation from lawyers regarding pending litigation.

We conducted our audit in the periods October through December 2020 and in January through March 2021 until 23 March 2021.

Communication with the Supervisory Board took place as follows:

Date	Nature and scope	Topic
24 March 2020	Meeting with the Supervisory Board	Presentation of the results of the audit of the annual financial statements 2019.
7 September 2020	Meeting with the Chairman of the Supervisory Board	Planning of the audit, including discussion of the key audit matters.
12 January 2021	Meeting with the Chairman of the Supervisory Board	Status of the audit, including discussion of the key audit matters and significant accounting issues.
23 March 2021	Meeting with the Chairman of the Supervisory Board	Presentation of the results of the audit of the annual financial statements 2020.

We held regular meetings with the CFO on the status of the audit.

We were provided with all information and evidence requested. In a letter of representation submitted to us, the executive directors confirmed the completeness of this information and evidence provided and of the books and records, annual financial statements and management report.

III. Independence

We were in compliance with the applicable independence requirements during our audit. We also confirm in accordance with Art. 6 (2) a) of the EU Audit Regulation that the audit firm and partners, senior managers and managers conducting the audit are independent from the audited entity.

The tax services as defined by Art. 5 (1) Subpara. 2 a) (i) and (iv) to (vii) of the EU Audit Regulation or valuation services as defined by Art. 5 (1) Subpara. 2 f) of the EU Audit Regulation provided by us or another member of the global network of EY firms have no direct or material effect, separately or in the aggregate, on the audited financial statements. In particular, the provision of such tax services in the fiscal year under audit did not significantly reduce the taxable profit in Germany, nor did it lead to the transfer of a significant portion of profits to another country if there was no economic reason for doing so other than to obtain a tax advantage for the entity.

E. Findings on the financial reporting

I. Legal compliance of the financial reporting

In our opinion, on the basis of the knowledge obtained in the audit, the books and records comply with the legal requirements. Data gathered from other audited documents are properly reflected in the books and records, the annual financial statements and the management report.

We concluded our audit, covering

- legal compliance of the components of the annual financial statements and of their derivation from the books and records;
- legal compliance of the disclosures in the notes to the financial statements;
- compliance with recognition, presentation and valuation requirements;
- compliance with all legal requirements governing financial reporting, including German legally required accounting principles and with all requirements applicable to entities of a specific size, legal form or industry; and
- compliance with requirements of the articles of incorporation and bylaws of relevance for the content of the financial reporting;

by issuing the auditor's report reproduced in section B.

Since the relevant requirements are expected to be met, the Company made use of the exemption afforded by Sec. 285 No. 17 HGB and opted to neither disclose nor itemize the total fee charged by the auditor for the fiscal year.

Our audit revealed the following discrepancy, which did not result in the modification of the findings on the legal compliance of accounting made at the beginning or of the opinion in the auditor's report, because we came to the conclusion that there is no risk of transactions being recognized incorrectly in the accounting, which would result in material misstatements in the annual financial statements. This conclusion was largely reached by means of substantive audit procedures. However, we consider the matter significant for the monitoring of management and the Company under audit:

When auditing the set-up of the IT general controls of the SAP ERP PE1 system, especially the FI/CO module, we found documentation and control weaknesses in the area of access and authorization management and in the area of change management. These relate in particular to the following:

- Approvals and releases of system openings and instances where "firefighter" systems were used (managing emergency users, carrying out system-critical activities and making changes directly in the live system) are not sufficiently verifiable.
- Comprehensive authorizations are allocated to too many users that do not need these authorizations.
- No automatic recording of changes in orders for system openings.
- Authorizations are not issued based on "reference users".
- Appropriate approval for setting up new users and locking users after employees leave the Company not present in all cases.

II. Overall presentation of the annual financial statements

1. Valuation bases

We provide the following information on the recognition and measurement policies applied as well as the significant factors for the valuation of assets and liabilities, including any effects of changes in such methods:

Intangible assets

The Company elected to recognize internally generated industrial and similar rights and assets, and own work capitalized in particular, as intangible assets. EUR 4.6m was recognized as assets in fiscal year 2020. The useful life of intangible assets is set based on the product life cycle or their expected synergy effects. Otherwise, the useful life is assumed to be 10 years in accordance with Sec. 253 (3) HGB.

Financial assets

With regard to financial assets, equity investments are valued at acquisition cost and loans are valued at the lower of cost or net realizable value on the reporting date, provided that any impairment is expected to be permanent. The recoverability of significant carrying amounts of investments and loans to affiliates is substantiated by the Company as part of a business valuation in accordance with the capitalized earnings method pursuant to IDW AcP HFA 10. The values used in the planning are based on numerous assumptions. The calculation of the net realizable values is therefore based on discretionary decisions and on projections of future business developments. This is based on the planning prepared by the Managing Board and ratified by the Supervisory Board on 11 December 2020. The Company uses company-specific risk-adjusted capitalization rates of 8.0%. Sustainable earnings were calculated applying a growth rate of 1.0%.

In the reporting year, a reversal of EUR 2,072k for impairments recorded in prior years was recognized for the carrying amount of the investment because the net realizable value determined as part of the company valuation is lower than the carrying amount of the investments in Manz Italy s.r.l. Furthermore, the impairment of the shares in Manz Hungary Kft. was reversed by EUR 521k on account of the net realizable value being higher than the carrying amount of the investment. Reversals of impairment are justified when the assessment of financial performance improves.

In addition, impairment of EUR 4,440k was recorded on the investment in NICE PV Research Ltd. because the carrying amount fell below the net realizable value of the investment.

Inventories

Raw materials, consumables and supplies are valued at the lower of the average cost or most recent cost or market on the reporting date.

Work in process and finished goods were valued at production cost. The valuation was made based on current cost accounting and on the basis of bills of materials as well as time recorded by employees working in production. In addition to the direct cost of materials, direct labor and other special direct costs, production costs include production and materials overheads as well as pro-rata administrative expenses.

Potential losses to value inventories at net realizable value are deducted from inventories on the assets side of the balance sheet to the extent possible. The Company recorded all other potential losses as liabilities.

Merchandise is recognized at the lower of cost or market, prepayments are made at nominal value.

As a rule, prepayments received on account of orders are offset against work in process. If the prepayments received exceed the production cost of inventories, they are posted in the “prepayments received” item in equity and liabilities.

Adequate allowances provide for all identifiable inventory valuation risks resulting from slow-moving stock, reduced marketability and lower replacement costs.

Provisions

Pension provisions are based on actuarial opinions and are measured using the settlement value determined by the projected unit credit method. As in the prior year, the “mortality tables 2018 G” by Prof. Dr. Klaus Heubeck were used as a basis for the 2020 annual financial statements of Manz AG. Obligations were discounted using the average market interest rate of the past 10 years of 2.30% (prior year: 2.71%) over a residual term of 15 years. Expected pension increases were taken into account at 1.7% (prior year: 1.7%); expected salary increases at 2.5% (prior year: 2.5%).

The difference between the recognition of pension provisions in accordance with the corresponding average market interest rate from the past 10 fiscal years and the recognition of the pension provisions in accordance with the corresponding average market interest rate from the past 7 fiscal years is calculated pursuant to Sec. 253 (6) HGB and disclosed in the notes to the financial statements. The difference amounted to EUR 269k as of the reporting date.

The Company made use of its option pursuant to Art. 67 (1) Sentence 1 EGHGB [“Einführungsgesetz zum Handelsgesetzbuch”: Introductory Law of the German Commercial Code] and will distribute the allocation amount resulting from the change in provision accounting by 31 December 2021. There was an allocation amount of EUR 51k in the fiscal year. Thus, an allocation amount of EUR 51k remains for the following fiscal years.

Other provisions account for all uncertain liabilities and potential losses from pending transactions. They are recognized at the settlement value deemed necessary according to prudent business judgment (i.e., including future cost and price increases). Provisions with a term of more than one year are discounted based on their term at the average market interest rate of the past seven fiscal years.

The provisions for long-service bonuses are valued in accordance with Sec. 253 (1) Sentence 2 HGB at the settlement amount deemed necessary based on prudent business judgment. Obligations were discounted using the average market interest rate of the past 7 years of 1.6% (prior year: 1.97%) for a residual term of 15 years. The anticipated employee turnover was taken into account at a rate of 9.00% (prior year: 10.00%).

For further details, please refer to the information on other valuation bases in the notes to the financial statements.

Our audit did not lead to any reservations concerning the recognition and measurement policies applied.

2. Overall conclusion

Based on our audit, which was carried out in accordance with professional standards, we conclude, as stated in our auditor’s report, that the annual financial statements as a whole give a true and fair view of the assets, liabilities, financial position and financial performance of the Company in accordance with German legally required accounting principles.

F. Findings related to the early warning system for the detection of risks

In accordance with Sec. 91 (2) AktG, the Managing Board has installed a monitoring system in order to identify, at an early stage, developments jeopardizing the Company’s ability to continue as a going concern. The monitoring and organizational duties cover the entire group managed by the Company to the extent that developments jeopardizing the parent company’s ability to continue as a going concern can arise at subsidiary level.

Our audit showed that the Managing Board has taken the steps required by Sec. 91 (2) AktG, particularly those related to the installation of a monitoring system, and that this system is capable of identifying, at an early stage, developments jeopardizing the Company’s ability to continue as a going concern.

G. Findings from the assurance work on the ESEF documents

We concluded our assurance work on the ESEF documents by issuing the auditor's report reproduced in section B, which includes the report on the assurance in accordance with Sec. 317 (3b) HGB on the electronic reproduction of the annual financial statements and the management report prepared for publication purposes.

H. Closing remark

We issue the above long-form report on our audit of the annual financial statements and the management report of Manz AG, Reutlingen, for the fiscal year from 1 January to 31 December 2020 and on our audit of the Company’s early warning system for the detection of risks and our assurance work on the ESEF documents of the Company in accordance with Sec. 321 HGB and the EU Audit Regulation and in compliance with the Generally Accepted Standards for the Issuance of Long-Form Audit Reports promulgated by the IDW (IDW AuS 450 (Revised)) and Exposure Draft of IDW Auditing Standard: Assurance in Accordance with Sec. 317 (3b) HGB on the Electronic Reproduction of Financial Statements and Management Reports Prepared for Disclosure (ED IDW AsS 410).

The key audit partners responsible for the audit are Martin Matischiok and Steffen Maurer.

Stuttgart, 23 March 2021

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Matischiok	Maurer
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

MANZ AG, REUTLINGEN

BALANCE SHEET FOR DECEMBER 31, 2020

A S S E T S

	12/31/2020 euros		12/31/2019 euros
A. NON-CURRENT ASSETS			
I. Intangible assets			
1. Internal generated industrial property, rights and similar rights and assets	16.957.408,60		16.721.421,94
2. Concessions, industrial and similar rights and assets and licences in such rights and assets	1.107.408,40		754.286,73
		18.064.817,00	17.475.708,67
II. Tangible assets			
1. Land, land rights and buildings including buildings on third party land	229.098,00		275.089,00
2. Technical equipment and machines	580.571,00		834.824,00
3. Other equipment, factory and office equipment	571.004,00		620.441,00
		1.380.673,00	1.730.354,00
III. Financial assets			
1. Shares in affiliated companies	41.789.377,95		49.970.155,12
2. Loans to affiliated companies	916.695,19		5.300.618,19
3. Participations	7.260.265,11		11.700.265,11
		49.966.338,25	66.971.038,42
		69.411.828,25	86.177.101,09
B. CURRENT ASSETS			
I. Inventories			
1. Raw materials, consumables and supplies	4.106.333,14		4.491.073,10
2. Unfinished goods	274.067.245,58		233.289.236,07
3. Finished goods and merchandise	704.507,34		2.401.190,82
4. Prepayments	66.305.126,81		61.528.307,30
5. Payments received on account of orders	-240.285.858,17		-206.078.429,12
		104.897.354,70	95.631.378,17
II. Receivables and other assets			
1. Trade receivables	1.080.925,95		576.065,36
2. Receivables from affiliated companies	249.445,12		0,00
3. Other assets	1.153.718,56		1.073.841,20
		2.484.089,63	1.649.906,56
III. Cash in hand, bank balances and checks		56.772.625,81	40.190.264,42
		164.154.070,14	137.471.549,15
C. PREPAID EXPENSES		416.193,21	499.369,46
		233.982.091,60	224.148.019,70

L I A B I L I T I E S

	12/31/2020 euros		12/31/2019 euros
A. EQUITY			
I. Issued capital		7.744.088,00	7.744.088,00
II. Capital reserves		41.294.940,98	51.294.940,98
III. Revenue reserves		1.470.601,00	1.470.601,00
IV. Retained earnings		-6.143.414,72	-6.483.671,85
		44.366.215,26	54.025.958,13
B. PROVISIONS			
1. Provisions for pensions and similar obligations	3.062.687,00		3.065.405,00
2. Tax provisions	827.300,98		539.800,98
3. Other provisions	6.289.678,67		8.664.015,46
		10.179.666,65	12.269.221,44
C. LIABILITIES			
1. Liabilities to banks	1.793,62		0,00
2. Advanced payments received on account of order	117.258.866,49		107.899.372,74
3. Trade payables	11.849.052,76		12.663.344,09
4. Liabilities to affiliated companies	43.525.876,34		35.253.216,02
5. Other liabilities	6.717.987,98		1.959.664,76
- thereof from taxes: EUR 6.170.823,50 (previous year: EUR 1.767.022,04):			
		179.353.577,19	157.775.597,61
D. DEFERRED INCOME		82.632,50	77.242,52
		233.982.091,60	224.148.019,70

MANZ AG, REUTLINGEN

INCOME STATEMENT FOR THE FISCAL YEAR 2020

			2020	2019
			euros	euros
1.	Revenues		78.711.710,19	37.203.720,71
2.	Increase or decrease in finished goods and unfinished goods		39.081.326,03	87.038.179,19
3.	Other capitalized internal work		5.645.604,17	4.183.388,13
4.	Other operating income - thereof from currency translation: EUR 207.138,97 (previous year: EUR 62.009,61)		5.088.781,44	1.995.881,68
5.	Cost of materials			
	a) Cost of raw materials, consumables and supplies and of purchased goods	-54.326.878,76		-80.884.069,42
	b) Cost of purchased services	-16.971.274,28		-13.510.052,21
			-71.298.153,04	-94.394.121,63
6.	Personnel expenses			
	a) Wages and salaries	-31.280.459,50		-29.660.784,58
	b) Social security, post-employment and other employee benefit costs	-5.443.818,34		-5.119.912,90
	- thereof for pension provisions: EUR 49.800,18 (previous year: EUR 55.206,37)			
			-36.724.277,84	-34.780.697,48
7.	Depreciation and Amortisation Depreciation/Amortisation for intangible fixed assets and property, plant and equipment		-4.875.761,36	-4.805.343,90
8.	Other operating expenses - thereof expenses acc. to section Art. 67 (1) and (2) EGHGB: EUR 51.210,00 (previous year: EUR 51.210,00) - thereof from currency conversion: EUR 246.633,57 (previous year: EUR 54.386,66)		-19.875.538,88	-21.520.104,63
9.	**Operating result**		-4.246.309,29	-25.079.097,93
10.	Other interest and similar income - thereof from affiliated companies: EUR 121.026,48 (Vorjahr: EUR 168.894,01) - thereof from compunding: EUR 9.173,21 (previous year: EUR 5.318,06)		131.420,71	174.615,68
11.	Depreciation of financial assets and of securities held as current assets		-4.440.000,00	-11.653.000,00
12.	Interest and similar expenses - thereof to affiliates: EUR 483.131,55 (previous year: EUR 183.806,47) - thereof from compounding: EUR 240.618,39 (previous year: EUR 261.770,00)		-754.791,99	-460.621,60
13.	**Financial result**		-5.063.371,28	-11.939.005,92
14.	Income taxes		0,00	-17,08
15.	**Earnings after taxes**		-9.309.680,57	-37.018.120,93
16.	Other taxes		-350.062,30	-617.560,45
17.	**Loss for the year**		-9.659.742,87	-37.635.681,38
18.	Loss carried forward from the previous year		-6.483.671,85	-5.847.990,47
19.	Withdrawals from capital reserves		10.000.000,00	37.000.000,00
20.	**Retained earnings**		-6.143.414,72	-6.483.671,85

Manz AG, Reutlingen notes for financial year 2020

General information

Manz AG has its headquarters in Reutlingen and is registered in the commercial register of the Stuttgart District Court (HRB 353989).

The annual financial statements have been prepared in accordance with the provisions of sections 242 et. seqq. and 264 et. seqq. of the German Commercial Code (HGB) and with the relevant provisions of the German Stock Corporation Act (AktG) and the Articles of Incorporation. The regulation for the large stock corporations are applied.

The income statement is prepared according to the total cost method.

Accounting and Valuation Methods

The presentation, classification, recognition and valuation of the annual financial statements are consistent with the previous year's principles.

Internally generated intangible fixed assets are valued in accordance with section 255 (2a) HGB with the expenses incurred in their development (development costs). If the development is not yet completed, no amortization is charged. The useful life is measured according to its product life cycle or its expected synergy effects, as far as they can be reliably estimated. Otherwise, the useful life is assumed at ten years in accordance with section 253 (3) HGB.

Acquired **intangible assets** are carried at acquisition cost and, if they are subject to wear and tear, are reduced by scheduled amortization over their useful life. Amortization is based on useful lives of three to five years.

Property, plant, and equipment are carried at acquisition or manufacturing cost and, if subject to wear and tear, are depreciated by the standard straight-line depreciation method. Scheduled depreciation is based on useful lives of between three and thirteen years. Low-value assets with acquisition or manufacturing costs up to EUR 800.00 are fully depreciated in the year of acquisition.

In the case of **financial investments**, the investments to affiliated companies and shareholdings are recognized at the lower of their acquisition costs or fair market value if a permanent reduction in value can be assumed. Loans are measured at the lower of nominal value or fair value.

Inventories of **raw materials, consumables, and supplies** are recognized at the lower of average acquisition or manufacturing costs and daily values on the balance sheet date.

Unfinished and finished goods are valued at manufacturing cost on the basis of individual calculations based on current operating accounts. In addition to the directly attributable direct material costs, production wages and special direct costs, manufacturing and material overhead costs, as well as proportionate administrative costs are also taken into account accordingly. No interest on loans and borrowings is included in the cost of sales.

There were no expected losses in all cases; i.e., deductions were made for the costs still to be incurred from the estimated sales prices.

Merchandise is carried at the lower of acquisition costs or market prices; prepayments made at the nominal amount.

All identifiable risks in **inventories** resulting from above-average storage periods, reduced usability and lower replacement costs are taken into account through appropriate devaluations.

The **prepayments received on orders** are always offset against the stock of unfinished products. If the amount of the advance payments received exceeds the manufacturing costs of inventories, it is reported under Advanced payments received on account of order.

Receivables and other assets are carried at their nominal value. All risky items are accounted by making appropriate individual allowances; the general credit risk was taken into account by appropriate write-downs on the outstanding trade receivables reduced by, the VAT at the balance sheet date.

Liquid assets plus **deferred income** are recognized at their nominal value.

A deferred tax liability is recognized for the differences between the commercial and tax valuations of assets, liabilities, and prepaid expenses and deferred income, as well as including of eligible loss and interest carryforwards if the overall tax burden is assumed in future financial years. The deferred tax assets are not recognized due to the existing loss history and the associated non-recoverability of the tax loss carryforwards. Deferred tax assets are offset by existing deferred tax liabilities as long as they correspond to each other. Loss carry forwards are taken into account to the extent that offsets against taxable income appear feasible within the next five years.
Deferred taxes are measured on the basis of the applicable corporate income tax rate and the trade tax rates. The tax rate for the past financial year was 29.13 %, including corporation tax, solidarity surcharge and trade income tax.

The Company introduced a **Performance Share Plan** for members of the Managing Board and other eligible employees for the first time in 2008. Under this plan, stock options are granted with a certain waiting period. The recipient receives a Manz share at the price of EUR 1.00 after expiration of the waiting period. The stock options expire when the employment is terminated or a termination agreement is concluded. A conditional increase in share capital was approved in 2008, 2011, 2012, 2015 and 2019 in order to service the stock options (see also Conditional Capital I, II, III). As in previous years, the issuance of stock options/commitments was not carried on the balance sheet of Manz AG’s financial statements prepared according to the German Commercial Code.

The **pension obligations** are measured at the projected unit credit method based on the settlement amount calculated according to the "Mortality tables 2018 G" of Prof. Dr. med. Klaus Heubeck. For discounting purposes, the average market interest rate of 2.3 % (previous year: 2.71 %) for the past ten years with a remaining term of 15 years was used. Expected pension increases of 1.7 % (previous year: 1.7 %) and salary increases of 2.5 % (previous year: 2,5 %) were taken into account.

Other provisions include all uncertain liabilities and anticipated losses from pending transactions. These are made up to the settlement amount (including future increases in costs and prices) that is necessary based on reasonable business judgment. Provisions with a remaining term of more than one year were discounted using the average market interest rate for the past seven financial years, corresponding to their remaining term. The anniversary provisions are recognized in accordance with section 253 (1) Sentence 2 HGB at the settlement amount required by reasonable commercial judgment. For the discounting, the average market interest rate, for of the past seven years, with a remaining term of 15 years, of 1.6 % (previous year: 1.97 %) was used. The expected fluctuation of 9.0 % (previous year 10.0 %) was applied. Assets that serve exclusively to fulfill obligations arising from partial retirement and are not accessibile to all other creditors are measured at fair value. The assets are offset against the corresponding underlying obligation. If there is an excess of obligations, it is included under the provisions. If the value of the assets exceeds the obligations, they are shown on the assets.

Liabilities are carried at the settlement amount.

Receivables and liabilities in **foreign currencies** with a remaining term of up to one year are measured at the average spot exchange rate on the balance sheet date.

Disclosures for the balance sheet

Fixed assets

The development of the individual items of fixed assets is shown in the statement of development of fixed assets, together with the details of depreciations and amortizations for the financial year.

Internally generated intangible assets

Research and development costs amounted to a total of TEUR 9,864 in the financial year, of which development costs of TEUR 4,615 were capitalized as intangible assets.

Investments

The composition of shareholdings is shown in the following table:

Shares held in affilitated companies	Participation in %	Equity TEUR	Result TEUR
Manz Batterytech Tübingen GmbH [1]	100,00%	1.522	0
Manz USA Inc., North Kingstown, USA [1]	100,00%	820	-68
Manz Hungary Kft., Debrecen, Ungarn [1]	100,00%	1.666	383
Manz Slovakia, s.r.o., Nove Mesto nad Vahom, Slovakei [1]	100,00%	17.416	3.959
Manz Italy s.r.l., Sasso Marconi, Italien [1]	100,00%	6.060	-524
Suzhou Manz New Energy Equipment Ltd., Suzhou, VR China [1]	56,00%	511	-4
Manz Asia Ltd., Hong-Kong, VR China [1]	100,00%	19.302	2.771
Manz China Suzhou Ltd., Suzhou, VR China [1]	100,00%	3.975	-2.211
Manz India Private Limited, New Delhi, Indien [1]	75,00%	122	-31
Manz Chungli Ltd., Chungli, Taiwan [1]	100,00%	56.676	2.686
Manz Taiwan Ltd., Chungli, Taiwan [1] [2]	100,00%	65.814	2.673
Manz (B.V.I.) Ltd., Road Town, Britische Virgin Islands [1]	100,00%	9.885	-243
Participations	Participation in %	Equity TEUR	Result TEUR
NICE PV Research Ltd., Peking, VR-China [1]	11,10%	77.443	-48.496
Talus Manufacturing Ltd., Chungli, Taiwan [1] [2]	80,50%	45.895	13.115

[1] The information relates to the annual financial statements according to IFRS; values converted into euros
[2] Manz Taiwan Ltd, Chungli, Taiwan holds an 80,50% stake in Talus Manufacturing Ltd., Chungli, Taiwan

The following changes were made to financial assets in financial year 2020:

Manz (Shanghai) Trading Company Ltd., Shanghai, PR China, was liquidated as of the end of October 31, 2020. Its assets and liabilities, as well as its equity, accrue to Manz Asia Ltd, Hong-Kong, PR China.

In the 2020 fiscal year, a write-up of 2,072 thousand euros was made on the shares in Manz Italy s.r.l., in which Manz AG holds 100 % of the shares.

A write-up of 521 thousand euros was performed on the shares in Manz Hungary Kft. in which Manz AG holds 100 % of the shares.

In the case of the 100 % investment in Manz Asia Ltd., a capital reduction in the amount of 10,774 thousand euros was carried out in the reporting year, which reduced the previous carrying amount of the investment by this amount.

An impairment loss of TEUR 4,440 was recognized on the 11.1 % participation in NICE PV Research Ltd.

On November 6, 2020, Lam Research Corp. informed Manz AG that it will exercise the contractually agreed call option to acquire the 80.5 % stake in Talus Manufacturing Ltd. Held by Manz Taiwan Ltd. The regulatory approvals still required for the acquisition were granted at the end of January 2021.

Inventories

Inventories include prepayments made to affiliated companies in the amount of TEUR 524 (previous year: TEUR 701) and prepayments received from affiliated companies in the amount of TEUR 0 (previous year: TEUR 0).

Receivables and other Assets

Trade receivables, receivables from affiliated companies, and other assets have a remaining term of up to one year, with the following exceptions. This relates to the tenant loan of TEUR 796 (previous year TEUR 410) reported under other assets and the unpledged asset value of pension provisions amounting to TEUR 47 (previous year TEUR 52)., which is also reported under other assets. The trade receivables with a residual term of more than a year amount to TEUR 0 (previous year TEUR 96).

Receivables from affiliated companies only include trade receivables.

Liquid funds

Cash and cash equivalents include cash on hand and bank balances. The bank balances are restricted due to advance payment guarantees of TEUR 5,000 (previous year TEUR 5,000).

Equity

Share capital
The subscribed capital of EUR 7,744,088.00 EUR is unchanged compared to the previous year and is divided into 7,744,088 no-par-value registered shares.

Authorized capital

Based on the resolution passed by the Annual General Meeting of July 12, 2016, the Managing Board is authorized with the approval of Supervisory Board, pursuant to Article 3, Sentence 3 of the Articles of Incorporation, to increase the share capital of the company in the period until July 11, 2021, on a one-time basis or in partial contributions, up to a total of EUR 3,872,044.00 through the issuance of a total of 3,872,044 new registered shares (no-par-value shares) by means of cash or non-cash contributions (Authorized Capital 2016).

In principle, the new shares must be offered to shareholders for subscription. The new shares may also be assumed by banks designated by the Managing Board with the obligation to offer them to the shareholders for subscription (indirect subscription right). However, the Managing Board was authorized, with the approval of Supervisory Board, to exclude shareholders' subscription rights

- in the case of a capital increase in return for cash contributions, if the issue price of the new shares does not significantly lower, within the meaning of section 203 (1) and 2, section 186 (3), sentence 4 of the Stock Corporation Act (AktG), than the stock exchange price of the company's shares with the same term at the time the issue price is determined, which should be as close as possible to the placement of the new shares. This authorization to exclude the subscription right only applies to the extent that shares to be issued in the capital increase do not account for more than EUR 774,408.00 and more than 10 % of the share capital at the time the authorization is exercised. The proportionate amount of share capital issued or sold during the period of this authorization based on other authorizations in direct or analogous application of section 186 (3), Sentence 4 of the Stock Corporation Act (AktG) under exclusion of subscription rights shall be offset against this maximum amount for an exclusion of subscription rights;

- in the case of capital increases against contribution in kind for the acquisition of companies, parts of companies or participations in companies or other assets or for the purpose of business combinations;

- to the extent that it is necessary to give holders of bonds with warrants or convertible bonds, profit-sharing rights, or profit-sharing bonds (or combinations of these instruments) issued by the company or direct or indirect affiliated companies of the company a subscription right to new shares to the same extent as they would be entitled upon exercising their option or conversion right or after fulfilling their conversion obligation;

- to exclude fractional amounts from the subscription right.

The Managing Board is authorized, with the approval of Supervisory Board, to determine the further details of the implementation of the capital increases based on the authorized capital.

Authorization to issue partial debentures with options or conversion rights or conversion obligations, profit-sharing rights, and profit-sharing bonds (or combinations of these instruments), as well as Conditional Capital I

At the Annual General Meeting on July 2, 2019, a resolution was passed to authorize the Managing Board, with the approval of Supervisory Board, to issue registered bonds with warrant or convertible bonds, profit-sharing rights and/or profit-sharing bonds, or a combination of these instruments (collectively referred to as "bonds"), up to a total nominal value of EUR 150 million, on one or more occasions until July 1, 2024. In addition, the Managing Board was also authorized to grant holders of warrant bonds option rights and holders of convertible bonds conversion rights for registered shares of the company with a proportionate amount of share capital totaling up to EUR 3,100,000.00, in accordance with the detailed terms and conditions of the warrant/convertible bonds.

The statutory subscription right is granted to the shareholders in the way that the bonds are underwritten by a bank or a syndicate of banks with the obligation to offer them to the shareholders for subscription. If bonds are issued by a Manz AG group company within the meaning of section 18 of the Stock Corporation Act (AktG), the company must ensure the statutory subscription rights is granted to the shareholders of Manz AG accordingly.

However, the Managing Board is authorized, with the approval of Supervisory Board, to exclude fractional amounts from shareholders' subscription rights and also to exclude the shareholders' subscription rights to the extent necessary to grant the holders of previously issued bonds with options or conversion rights and/or conversion obligations a subscription right to the extent to which they would be entitled as shareholders after exercising their options or conversion rights or upon fulfilling their conversion obligation.

Furthermore, the Managing Board is authorized, with the approval of Supervisory Board, to completely exclude shareholders' subscription rights to bonds issued with an option and/or conversion right or conversion obligation, provided the Managing Board, after dutiful examination, comes to the conclusion that the issue price of the bonds is not significantly below their hypothetical market value as calculated according to accepted and, in particular, actuarial methods. This authorization to exclude the subscription right applies to bonds issued with an option and/or conversion right or a conversion obligation, with an option and/or conversion right or a conversion obligation for shares with a total proportionate amount of the share capital that may not exceed 10 % of the share capital, either at the time the authorization becomes effective or – in the event that this value is lower – at the time the present authorization is exercised. The following are offset against the aforementioned ten percent limit:

- new shares that are issued from authorized capital under exclusion of the subscription right pursuant to section 186 (3) sentence 4 of the Stock Corporation Act (AktG) during the term of this authorization up to the issue of bonds with option and/or conversion right or conversion obligations without subscription rights in accordance with section 186 (3) sentence 4 of the Stock Corporation Act (AktG), and

- such shares which are acquired on the basis of an authorization granted at the annual general meeting and are disposed in accordance with section 71 (1) no. 8, sentence 5 of the Stock Corporation Act (AktG), in conjunction with Section 186(3), sentence 4 of the Stock Corporation Act (AktG) during the term of this authorization until the issue of bonds with option and/or conversion rights or conversion obligations subject to the exclusion of subscription rights in accordance with section 186 (3), Sentence 4 of the Stock Corporation Act (AktG).

Where profit-sharing rights or profit-sharing bonds without an option right or conversion right/obligation are issued, the Managing Board is authorized, with the approval of Supervisory Board, to completely exclude shareholders' subscription rights if these profit-sharing rights or profit-sharing bonds have the characteristics of a debenture; i.e., do not establish any membership rights in the company, do not grant a participation in the liquidation proceeds, and the interest payable is not calculated on the annual net income, net retained profit, or the dividend. Furthermore, in such a case, the interest payment and the issue price of the profit-sharing rights or profit-sharing bonds must reflect current market conditions at the time of issue.

Pursuant to Article 3(4) of the Articles of Incorporation, the share capital of the company has been conditionally increased by up to EUR 3,100,000.00 through the issue of up to 3,100,000 no-par value registered shares (Conditional Capital I). The conditional capital increase shall only be carried out to the extent that the holders of option or conversion rights or those obliged to convert from option or convertible bonds, profit sharing rights or profit sharing bonds issued by the Company or a Group company within the meaning of section 18 the Stock Corporation Act (AktG) on the basis of the authorization resolved by the Annual General Meeting on July 2, 2019 under agenda item 5, exercise their option or conversion rights or, if they are obligate to convert, fulfill their obligation to convert, unless a cash settlement is granted or treasury shares or shares of another listed company are used to service the conversion. The new shares shall be issued at the option or conversion price to be determined in each case in accordance with the authorization resolution described above. The new shares shall participate in profit from the beginning of the financial year in which they are created on the basis of the exercise of options or conversion rights or of the fulfillment of conversion obligations. The Managing Board is authorized, with the approval of Supervisory Board, to establish the further details of the execution of the conditional capital increase.

Authorization to issue share subscription rights within the scope of the Manz Performance Share Plan 2019 as well as Conditional Capital III

At the annual general meeting held on July 2, 2019, a resolution was passed to authorize the Managing Board, with the approval of Supervisory Board, to grant a total of up to 95,000 subscription rights for subscription of a total of up to 190,000 shares in the company to members of the management of affiliated companies and to executives below the management board level and executives of affiliated companies, both domestic and abroad, on one or more occasions through June 30, 2024. The Supervisory Board was authorized to grant one or more occasions a total of up to 85,000 subscription rights for subscription of up to 170,000 shares in the company to members of the company's Managing Board until June 30, 2024.

Subscription rights are to be granted, structured and exercised in accordance with the provisions in the resolution of the annual general meeting on July 2, 2019.

The authorization of July 7, 2015 was revoked by resolution passed at the annual general meeting of July 2, 2019, insofar as no subscription rights had yet been issued on the basis of the authorization.

Pursuant to Article 3(6) of the Articles of Incorporation, the company's share capital has been conditionally increased by up to EUR 360,000.00 through the issue of up to 360,000 no-par value registered shares (Conditional Capital III). The conditional capital increase serves to secure the rights of the holders of subscription rights granted on the basis of the authorization of the annual general meeting on July 2, 2019. The shares will be issued at the issue price specified in the authorization adopted at the annual general meeting on July 2, 2019. The conditional capital increase will be carried out only to the extent subscription rights are exercised and the company does not issue either treasury shares or a cash settlement for the purpose of fulfillment of the subscription rights. The new registered shares will be equivalent to already issued shares of the same class with respect to their dividend entitlement. The Managing Board and, to the extent members of the Managing Board are concerned, the Supervisory Board are authorized to establish the further details of the conditional capital increase and its implementation.

Authorization to issue share subscription rights within the scope of the 2015 Manz Performance Share Plan as well as Conditional Capital II

At the annual general meeting held on July 7, 2015, a resolution was passed authorizing the Managing Board, with approval of Supervisory Board, to grant a total of up to 59,000 subscription rights ("Performance Shares") for a total of up to 118,000 shares in the company to management of affiliated companies as well as to executives below the management board level and managers of affiliated companies, both domestic and abroad, on one or more occasions through June 30, 2020. The Supervisory Board was given authorization to grant a total of up to 56,000 subscription rights ("Performance Shares") for a total of up to 112,000 shares in the company to members of Manz's Managing Board on one or more occasions through June 30, 2020.

Subscription rights are to be granted, structured and exercised in accordance with the provisions in the resolution of the annual general meeting on Tuesday, July 7, 2015.

Pursuant to Article 3(5) of the Articles of Incorporation, the company's share capital has been conditionally increased by up to EUR 230,000.00 through the issue of up to 230,000 no-par value registered shares (Conditional Capital II). The conditional capital increase serves to secure the rights of the holders of subscription rights ("Performance Shares") granted on the basis of the authorization granted by the annual general meeting on July 7, 2015. The shares will be issued at the issue price specified in the authorization adopted at the annual general meeting on Tuesday, July 7, 2015. The conditional capital increase will be carried out only to the extent that subscription rights are exercised and the company does not issue either treasury shares or a cash settlement for the purpose of fulfillment of the subscription rights. The new shares will be equivalent to already issued shares of the same class with respect to their dividend entitlement. The Managing Board and, to the extent members of the Managing Board are concerned, the Supervisory Board are authorized to establish the further details of the conditional capital increase and its implementation.

Furthermore, on June 30, 2020, the Annual General Meeting authorized the Managing Board and - if the shares are issued to members of the Managing Board - the Supervisory Board to use acquired treasury shares of Manz AG to service subscription rights that were or will be issued to members of the Managing Board and managers as part of the Manz Performance Share Plan 2015 resolved by the Annual General Meeting on July 7, 2015 under item 6 of the agenda or as part of the Manz Performance Share Plan 2019 resolved by the Annual General Meeting on July 2, 2019 under item 6 of the agenda. This reissuance authorization conclusively defines the group of persons to whom the Manz shares can be transferred.

The Manz Performance Share Plan 2015 for members of the Managing Board and executives of the company and its Group companies was explained in a report by the Managing Board to the Annual General Meeting on July 7, 2015. Similarly, the Manz Performance Share Plan 2019 for members of the Managing Board and executives of the company and its Group companies, which was resolved as part of the 2019 Annual General Meeting, was explained in a report by the Managing Board to the Annual General Meeting on July 2, 2019.

The option of granting treasury shares of Manz AG to the beneficiaries in fulfillment of the subscription rights is a suitable means of counteracting a dilution of the capital ownership and voting rights of the shares that would occur in the event of fulfillment of the subscription rights with shares newly created on the basis of the conditional capital. Insofar as the Company makes use of this option, Conditional Capital II pursuant to Art. 3 par. 5 of the Articles of Association or Conditional Capital III pursuant to Art. 3 par. 6 of the Articles of Association need not be utilized. Whether and to what extent use is made of the authorization to issue treasury shares in fulfillment of subscription rights, or whether new shares are issued from the conditional capital instead, shall be decided by the Executive Board and - in the event of subscription rights being exercised by a member of the Executive Board - by the Supervisory Board, who shall be guided in this by the interests of the Company and its shareholders.

Authorization to acquire and sell treasury shares

The Annual General Meeting on June 30, 2020 authorized the Executive Board of the Company to acquire treasury shares until July 1, 2024 in accordance with Section 71 (1) no. 8 of the German Stock Corporation Act (AktG) up to a total of 10 % of the Company's capital stock existing at the time this authorization takes effect or - if this amount is lower - at the time this authorization is exercised. The shares acquired on the basis of this authorization together with other shares in the Company which the Company has already acquired and still holds or which are attributable to the Company in accordance with sections 71d and 71e of the German Stock Corporation Act (AktG) may at no time account for more than 10 % of the Company's capital stock. The requirements of § 71 (2) sentences 2 and 3 AktG must be observed.

The shares may only be purchased on the stock exchange or by means of a public purchase offer to all shareholders and must comply with the principle of equal treatment of shareholders (Art. 53a AktG).

The Executive Board was authorized to sell the treasury shares acquired on the basis of the above authorization in a way other than via the stock exchange or by means of an offer to all shareholders, provided that the sale is for cash and at a price which is not significantly lower than the stock market price of the Company's shares of the same class at the time of the sale. This authorization for use is limited to shares representing a proportionate amount of the capital stock which in total may not exceed 10 % of the capital stock of the Company, either at the time this authorization becomes effective or - if this amount is lower - at the time this authorization is exercised. The maximum limit of 10 % of the capital stock shall be reduced by the pro rata amount of the capital stock attributable to those shares which are issued or sold during the term of this authorization subject to the exclusion of subscription rights in accordance with or pursuant to Section 186 (3) sentence 4 AktG. The maximum limit of 10 % of the capital stock shall also be reduced by the pro rata amount of capital stock represented by those shares to be issued to service bonds with option or conversion rights or option or conversion obligations, insofar as these bonds are issued during the term of this authorization with exclusion of subscription rights in analogous application of Section 186 (3) sentence 4 AktG.

The Executive Board was also authorized to transfer the treasury shares acquired on the basis of the above authorization to third parties insofar as this is done for the purpose of acquiring companies, parts of companies or interests in companies or other assets or carrying out business combinations.

The Managing Board and - insofar as the obligation is to members of the Managing Board - the Supervisory Board, were also authorized to use the treasury shares acquired on the basis of the above authorization to fulfill subscription rights that were or will be issued as part of the Manz Performance Share Plan 2015 resolved by the Annual General Meeting on July 7, 2015 under item 6 of the agenda or as part of the Manz Performance Share Plan 2019 resolved by the Annual General Meeting on July 2, 2019 under item 6 of the agenda.

The Managing Board was also authorized to use the treasury shares acquired on the basis of the aforementioned authorization to fulfill subscription or conversion rights that arise as a result of exercising option or conversion rights, or to fulfill option or conversion obligations that are granted or imposed as part of the issue of bonds with warrants or convertible bonds, profit participation rights, or profit participating bonds (or combinations of these instruments) by the company or its Group companies.

The Executive Board was also authorized to transfer the treasury shares acquired on the basis of the above authorization to employees of the Company or employees or members of governing bodies of subordinate affiliated companies of the Company within the meaning of §§ 15 et seq. German Stock Corporation Act (AktG).

Capital reserves

The capital reserves mainly include the contributions of shareholders pursuant to section 272 (2) no. 1 HGB.

In the context of profit appropriation, EUR 10.0 million (previous year: EUR 37.0 million) were withdrawn from capital reserves and used to balance out net losses.

Retained earnings

Retained earnings amount to EUR 1,470,601 (previous year: EUR 1,470,601) and fall under section 266 (3) A. III. no. 4 HGB.

Accumulated loss

Loss carried forward Friday, January 1, 2020	-6.483.671,85
Loss for the year 2020	-9.659.742,87
Allocation from the capital reserves	10.000.000,00
Net loss 2020	-6.143.414,72

Treasury Shares

By resolution of the Annual General Meeting on July 2, 2019, the company was authorized in accordance with section 71 (1) no. 8 of the Stock Corporation Act (AktG) to acquire treasury shares with a proportional value of up to 10 % of the share capital until the date of the July 1, 2024.

In the financial year 2020, the company purchased 64 of its own shares (previous year: 203) at an average price of 23.14 EUR (previous year: 19.48 EUR) per share with a market value of TEUR 1 (previous year: TEUR 4). The company purchased its own shares for servicing employee profit sharing and for employee anniversaries. As of December 31, 2020 the company has no further treasury shares in its portfolio.

Provisions

Provisions for Pensions and Similar Obligations

Pension benefit obligations are calculated on the basis of biometric probabilities according to the "2018 G mortality tables" of Prof. Dr. med. Klaus Heubeck with the settlement amount actuarially calculated using the projected unit credit method.

Discounting is based on the respective average market interest rate published by the Deutsche Bundesbank for a remaining term of 15 years.

The revaluation of the pension provisions of the former Manz Tübingen GmbH resulted in an under-funding of TEUR 768 as of January 1, 2010. The option right is exercised in accordance with Art. 67 (1) EGHGB (German Commercial Code) and the required appropriation is distributed over a period of 12 years. In the year under review, TEUR 51 were transferred to pension reserves through profit or loss. As of Tuesday, December 31, 2020, the undervaluation amount of TEUR 51 had not yet been reported in the balance sheet amounts.

Unpledged reinsurance policies were taken out in order to cover the risk arising from the pension obligations from the former Manz Tübingen GmbH. An asset value of TEUR 47 is recognized under other assets for this.

The pension provisions totaled TEUR 3,063 on the reporting date.

In the financial year 2020, the pension provisions were discounted at the average market interest rate over the past ten years. Pursuant to section 253 (6) HGB, the difference between the calculation of reserves using the average market interest rate of the past ten financial years and the calculation of the reserves using the average market interest rate of the past seven financial years must be determined. The difference within the meaning of Section 253 (6) HGB amounts to EUR 269 thousand. This is subject to a distribution restriction.

The **tax provisions** primarily relate to tax provisions for withholding tax in Taiwan and China from receivables from Manz Taiwan Ltd. and Manz China Suzhou Ltd. in the amount of 827 thousand euros (previous year: 540 thousand euros).

Other provisions primarily relate to personnel provisions of TEUR 3,192 (previous year: TEUR 2,024), warranties of TEUR 1,501 (previous year: TEUR 1,024), as well as outstanding invoices of TEUR 420 (previous year: TEUR 786). Provisions from earn-out obligations are in the amount of TEUR 0 (previous year: TEUR 3,000)

Other provisions include partial retirement obligations of TEUR 27 (previous year: TEUR 73), whereby the assets pledges to secure the claims from the partial retirement model in the amount of EUR 16 are offset against the provisions for partial retirement obligations. The fair value of the offset asset amounts to TEUR 16 and corresponds to the acquisition costs. The calculated expenses amount to TEUR 0 and the offset income amounts to TEUR 0.

The residual terms of the **liabilities** are shown in detail in the statement of liabilities.

		Status 31.12.2020 EUR	Remaining term up to 1 year EUR	Remaining term over one year EUR	Remaining term > 5 years EUR
Liabilities from banks		1.793,62	1.793,62	0,00	0,00
	Previous year	*0,00*	*0,00*	*0,00*	*0,00*
Advance payments received on orders		117.258.866,49	117.258.866,49	0,00	0,00
	Previous year	*107.899.372,74*	*107.899.372,74*	*0,00*	*0,00*
Liabilities from goods and services		11.849.052,76	11.849.052,76		
	Previous year	*12.663.344,09*	*12.663.344,09*	*0,00*	*0,00*
Liabilities to affiliated companies		43.525.876,34	43.525.876,34		
	Previous year	*35.253.216,02*	*35.253.216,02*	*0,00*	*0,00*
Other liabilities		6.717.987,98	6.717.987,98		
	Previous year	*1.959.664,76*	*1.959.664,76*	*0,00*	*0,00*
		179.353.577,19	179.353.577,19	0,00	0,00
	Previous year	*157.775.597,61*	*157.775.597,61*	0,00	*0,00*

Liabilities to affiliated companies in the amount of TEUR 43,526 (previous year: TEUR 35,253) resulted solely from trade payables.

Notes to the profit and loss statement

Revenues

Revenues are recognized in accordance with section 277 (1) HGB and are broken down by business segments and region as follows:

	2020 TEUR	2019 TEUR
By business segment		
Electronics	15.577	16.303
Solar	5.953	398
Energy Storage	48.414	12.164
Service	4.023	3.191
Contract Manufacturing	467	1.167
Sales with affiliated companies	4.278	3.981
	78.712	37.204

	2020 TEUR	2019 TEUR
By region		
Domestic or Germany	53.731	16.127
Other EU countries	6.870	3.694
China	4.521	8.058
Taiwan	994	1.046
USA	4.599	3.624
Other countries	7.997	4.655
	78.712	37.204

Increase or decrease in the stock of finished and unfinished products

This item includes as extraordinary items the write-down of unfinished and finished goods with a total amount of TEUR 929 (previous year EUR 1,300).

Other operating income

This mainly relates to non-period income of other provisions in the amount of TEUR 1,202 thousand (previous year TEUR 1,426), non-period income from the reduction of the allowance for receivables of TEUR 110 (previous year: EUR 206) and non-period income from receipt of receivables written off TEUR 191 (previous year: TEUR 3). Income from receipt of state subsidies amounts to TEUR 392 (previous year: TEUR 14) and Income from exchange rate differences amounts to TEUR 207 (previous year: TEUR 62). In addition, there is income from the write-up of financial assets due to a better estimated earnings situation of TEUR 2,593 (previous year: TEUR 9), which is to be considered extraordinary.

Other operating expenses

Other operating expenses include expenses TEUR 51 (previous year: TEUR 51) in accordance with to Art. 67 (1) sentence 1 EGHGB (increase in the pension provision). Expenses not related to the reporting period is TEUR 0 (previous year TEUR 14).

Depreciation on financial assets

Depreciation on financial assets includes a write-down of the 11,1 % participating interest in NICE PV Research Ltd. by TEUR 4,440.

Other information

Contingent liabilities

Manz AG guarantees TEUR 9,270 for bank liabilities for subsidiaries. Bank liabilities of subsidiaries amount to TEUR 10,718 as of the balance sheet date.

Liability obligations for commitments of NICE Solar Energy GmbH, Schwäbisch Hall (formerly Manz CIGS Technology GmbH, Schwäbisch Hall) in the amount of a total of TEUR 3,500 no longer exist.

In the event of fire damage to a customer's ventilation system, there is a possibility that Manz AG is also responsible for the fire. The cause of the fire is currently being investigated by an expert. The currently apparent costs for replacing the system and estimated ancillary costs amount to around 150 thousand euros.

The contingent liabilities relate to potential future events, the entry of which would lead to an obligation. As of the balance sheet date, these are considered to be unlikely but cannot be ruled out. According to the currently available planning figures of the subsidiaries, there are no indications that the contractual conditions with banks will not be fulfilled.

Other financial obligations

The total amount of payment obligations for rental and leasing contracts amounts to TEUR 18,852 TEUR 20,361). The rental and leasing contracts end between 2021 and 2028.
The contribution for the Suzhou Manz New Energy Equipment Co., Ltd. which has not yet been called amounts to 12.6 million CNY (equivalent to EUR 1.6 million as of 12-31-2020) and is due in 2021.

Payout hold

In accordance with section 268 (8) of the German Commercial Code (HGB), a profit distribution block from capitalization resulted in the following amounts:

	TEUR
Capitalization of internally generated intangible assets	16.957
Previous year	*16.721*
Difference according to section 253 (6) (1) HGB	269
Previous year	*284*
Total amount blocked against distribution in the sense of section 268 (8) HGB	17.226
Previous year	*17.005*

Amount of equity available to cover the amounts within the meaning of section 268 (8) HGB available equity interests.

	2020 TEUR	2019 TEUR
Capital reserves acc. section 272 (2) No. 4 HGB	41.295	51.295
Other revenue reserves	1.471	1.471
Loss carried forward from previous year	-6.484	-5.848
Nett loss for the fiscal year	-9.660	-37.636
Allocation from capital reserves	10.000	37.000
Equity portions availabe for cover	36.622	46.282

Members of the Managing Board

Martin Drasch, Dipl. Ing. (FH), Ehningen, -Chairman of the Managing Board- ,
Manfred Hochleitner, Dipl. Math., Munich, -Chief Financial Officer- ,
Jürgen Knie, Dipl. Wirt. Ing. (FH), Reutlingen, - Chief Operations Officer -

Members of the Supervisory Board

Prof. Dr. Heiko Aurenz, Dipl. oec., Managing Director of Ebner Stolz Management Consultants GmbH, Stuttgart, Chairman of the Supervisory Board.

Dieter Manz, Dipl. Eng. (FH), Managing Director of Manz GmbH Management Consulting and Investment, Schlaitdorf, Deputy Chairman of the Supervisory Board

Prof. Dr.-Eng. Michael Powalla, Managing Director of Photovoltaics and member of the Managing Board of the Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW), as well as Professor for thin film photovoltaics at the Karlsruhe Institute for Technology (KIT), Lichttechnisches Institut, Faculty of Electrical Engineering and Information Technology.

Dr. Zhiming Xu, Chief Technical Officer of the Shanghai Electric Automation Group of Shanghai Electric Group Company Ltd, Shanghai, PR China and Managing Director of Shanghai Electric Group Automation Engineering Co, LTD, Shanghai, PR China

The Chairman of the Supervisory Board Prof. Dr. Heiko Aurenz is also Chairman of the Supervisory Board of Know How! Company for continuing education, Leinfelden-Echterdingen, Germany, Dep. Chairman of the Supervisory Board of MQ Result AG, Tübingen; Member of the Supervisory Board of Anna-Haag-Mehrgenerationenhaus e. V., Stuttgart; Member of the Supervisory Board of Anna Haag Stiftung gGmbH, Stuttgart; Member of the Supervisory Board of TanDiEM gGmbH, Stuttgart; Chairman of the Advisory Board of Monument Vermögensverwaltung GmbH, Stuttgart; Member of the Foundation Board of Stiftung Aufbruch und Chance, Stuttgart and Chairman of the Advisory Board of Bumüller GmbH & Co Backbetriebe KG, Hechingen; Member of the Advisory Board of Herrmann Ultraschalltechnik GmbH & Co. KG, Karlsbad and Member of the Advisory Board of Herrmann Holding GmbH, Karlsbad

The Deputy Chairman of the Supervisory Board Dieter Manz is a member of the Supervisory Board of TecInvest Holding AG, Puchheim.

The member of the Supervisory Board Prof. Dr.-Eng. Michael Powalla does not hold any mandates in other statutory supervisory boards or comparable domestic and foreign supervisory bodies of commercial entities.

Supervisory Board member Dr. Zhiming Xu is a member of the Supervisory Board of Suzhou Manz New Energy Equipment Co., Ltd., Suzhou, People's Republic of China, Deputy Chairman of the Supervisory Board of NICE PV Research Ltd., Beijing, People' s Republic of China and member of the Supervisory Board of ANWHA(Shanghai) Automation Engineering Co, Ltd, Shanghai, People's Republic of China.

Compensation of the Managing Board

The fundamentals of the compensation system and the amount of the compensation paid to the Managing Board and Supervisory Board and the former members of the Managing Board, are presented in the compensation report, which forms part of the management report.

The total compensation of the Managing Board for financial year 2020 amounts to TEUR 2,250 (previous year: TEUR 996). The non-performance-related benefits amount to TEUR 862 (previous year: TEUR 742). The performance-related benefits amount to TEUR 1,388 (previous year: 254 TEUR), of which TEUR 20 relates to discretionary bonuses (previous year: TEUR 0), TEUR 234 to cash bonuses (previous year: TEUR 0) and payments due in the long-term amount to TEUR 1,134 (previous year TEUR 254). Long-term benefits are share awards / subscription rights under the performance share plan. In the year under review, a total of 48,675 (previous year: 22,327) subscription rights were granted to members of the Managing Board, with a corresponding fair value of TEUR 1,134 (previous year: TEUR 254).

Managing Board member Martin Drasch has a defined contribution plan. For this purpose, TEUR 12 (previous year: TEUR 18) p.a. are paid into an externally funded pension fund.

Managing Board member Manfred Hochleitner has a defined contribution plan. In financial year 2020, for this purpose, TEUR 12 (previous year: TEUR 12) were paid into an externally re-insured provident fund.

Managing Board member Jürgen Knie has a defined contribution plan. In financial year 2020, for this purpose, TEUR 12 (previous year: TEUR 6) were paid into an externally re-insured provident fund.

Salaries of former members of Managing Board

For the former Executive Board member Otto Angerhofer, who died in October 2020, a pension payment was made in the fiscal year, or a widow's pension payment starting in November, in the amount of EUR 10 thousand (previous year: EUR 10 thousand). There is a pension obligation to the widow of the former Managing Board member amounting to TEUR 89 (previous year: TEUR 145).

Compensation of the Supervisory Board

The compensation system for the Supervisory Board is also presented in the compensation report, which is part of the management report.
For the financial year 2020, compensation was paid to members of the Supervisory Board totaling TEUR 189 (previous year: TEUR 237). The Supervisory Board's compensation consists of a fixed component of TEUR 130 (previous year TEUR 144), and the asset value of TEUR 59 (previous year TEUR 93).

Employees

The number of full time equivalent during the financial year 2020 averaged 440 (previous year (previous year: 414), excluding Managing Board members. There were 156 (previous year: 151) employees in production and 284 (previous year: 263) employees in the technical/commercial areas. The annual average was 34 (previous year (previous year: 35) trainees employed.

Business not included in the balance sheet

The production and administration buildings of Manz AG are leased (real estate leasing contract). The purpose of the lease is the financing of fixed assets. Risks resulting from real estate lease arise from the lease installments to be paid (see other financial obligations) and the fixed payment structure. The advantage is the complete elimination of debt financing and the avoidance of the residual value risk. The financial impact is included in other financial obligations.

Consolidated financial statements

As the parent company, Manz AG has prepared consolidated financial statements in accordance with IFRS and a group management report, which is available at the company's headquarters in Reutlingen, or published in the electronic Federal Gazette.

Transactions with related persons

There are no material transactions with related parties and persons that are not conducted at arm's length and are necessary for the assessment of the financial position.

Auditors total fee

The disclosure of the auditors' fee is waived in accordance with section 285 no. 17 final sentence of the HGB.

Information on the Corporate Governance Code

The Managing Board and the Supervisory Board of the Manz AG have submitted their annual declaration of conformity in accordance with section 161 of the Stock Corporation Act (AktG). The joint declaration of compliance by the Managing Board and the Supervisory Board is published on the Manz AG website at www.manz.com.

Events of significant importance after the balance sheet date

On January 26, 2021, Manz AG was informed by the EU that it had been promised substantial funding as part of the so-called IPCEI project (Important Project of Common European Interest) EuBatIn (Promotion of Research and Innovation in Battery Manufacturing). Manz had applied with the concept "Lithium Battery Factory of the Future". The amount of funding that Manz AG will receive to realize the project has not yet been determined. Subject to final commitments to finance Manz AG's own share, the project is to be implemented by Group companies in Germany and Italy.

As of February 4, 2021, Manz AG acquired a 40 % interest in Cadis Engineering GmbH. The acquisition value is in the low single-digit million euro range. Cadis is a specialist for industrial inkjet systems. Manz is thus tapping into digital printing technology for direct printing on components.

The regulatory approvals for the sale of the shares in Talus Manufacturing Ltd. were granted at the end of January 2021. The disposal generated a profit in the low double-digit million euro range.

Manz (B.V.I.) Ltd, Road Town, British Virgin Islands, was dissolved with effect from January 26, 2021.

Disclosures pursuant to section 160 (1) no. 8 AktG

As of the balance sheet date 2020, there are the following shareholdings in the Company with more than 3 % of the voting rights, which have been notified in accordance with the German Securities Trading Act (WpHG):

1. Shanghai Electric Germany Holding GmbH (Share of voting rights 19,67 %)

Notification of voting rights

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Deutschland

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
X	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other reason:

3. Information about the notifying party

Name:	Registered office and state:
The People's Republic of China, acting through the State-owned Asset Supervision Commission (SASAC) of Shanghai People's Government of the People's Republic of China	Shanghai, Volksrepublik China

4. Names of shareholders
With 3 % or more voting rights, it different from 3.

Shanghai Electric Germany Holding GmbH

5. Date on which contact with limit occurred

23.05.2016

6. Total proportion of voting rights

	Proportion of voting rights (Total 7.a.)	Share Instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
New	19,67 %	10,43 %	30,1 %	7.744.088
Last communication	%	%	%	/

7. Details regarding existing number of voting rights
a. Voting rights (sections 21, 22 WpHG)

ISIN	absolute		in %	
	direct (§ 21 WpHG)	assigned (§ 22 WpHG)	direct (§ 21 WpHG)	assigned (§ 22 WpHG)
DE000A0JQ5U3		1.523.480	%	19,67 %
Total	1.523.480		19,67 %	

b.1. Instruments in the sense of section 25 (1) no. 1 WpHG

Type of instrument	Due date/ expiration	Exercise period / term	Voting rights	Voting rights in %
Call Option		25.05.2016 - 24.05.2017	807,490	10,43 %
		Total	807,490	10,43 %

b.2. Instruments in the sense of section 25 (1) no. 2 WpHG

Type of Instrument	Due date / expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights	Voting rights in %
					%
			Total		%

8. Information relating to notifying party

	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
X	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Company	Voting rights in %, if 3 % or higher	Instruments in %, if 5 % or higher	Total in %, if 5 % or higher
The People's Republic of China, acting through the State-owned Asset Supervision Commission (SASAC) of Shanghai People's Government	%	%	%
Shanghai Electric (Group) Corporation	%	%	%
Shanghai Electric Group Company Limited	%	%	%
Shanghai Electric Hongkong Co. Limited	%	%	%
Shanghai Electric Germany Holding GmbH	19,67 %	10,43 %	30,1 %

9. For power of attorney pursuant to section 22 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting	
Total proportion of voting rights after the Annual General Meeting	% (corresponds to voting rights)

2. Dieter Manz (Share of voting rights 12,32 %)

Notification of voting rights

After the initial public offering in September 2006, Dieter Manz held 59 % of the voting rights.

Notification of voting rights

1. Information concerning the issuer

Manz AG
Steigäckerstr. 5
72768 Reutlingen
Deutschland

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
X	Other reason: Voluntary notification due to reorganization of shareholdings within the family

3. Information about the notifying party

Name:	Registered office and State:
Mr. Dieter Manz, Birth date: 25.11.1961	

4. Names of shareholders
With 3 % or more voting rights, if different from 3.

Ulrike Manz;Stephan Manz;Laura Manz

5. Date on which contact with limit occurred:

28.08.2018

6. Total proportion of voting rights

	Proportion pf voting rights (Total 7.a.)	Share instruments (Total 7.b.1.+ 7.b.2.)	Total Shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
neu	28,09 %	0 %	28,09 %	7744088
letzte Mitteilung	25,10 %	0 %	25,10 %	/

7. Details regarding existing number of voting rights
a. Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (§ 33 WpHG)	assigned (§ 34 WpHG)	direct (§ 33 WpHG)	assigned (§ 34 WpHG)
DE000A0JQ5U3	953942	1221257	12,32 %	15,77 %
Summe	2175199		28,09 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of instrument	Due date/ expiration	Exercise period / term	Voting rights absolute	Voting rights in %
				%
		Total		%

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights absolute	Voting rights in %
					%
			Total		%

8. Information relating to the notifying party

X	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Company	Voting rights in %, if 3 % or higher	Instruments in %, if 5 % or higher	Total in %, if 5 % or higher

9. For power of attorney pursuant to section 22 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting	
Total proportion of voting rights after the Annual General Meeting:	% (corresponds to voting rights)

10. Miscellaneous information:

3. Invesco Advisers, Inc. (former Oppenheimer Funds)
(Share of voting rights 6,46 %)

Notification of voting rights

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Deutschland

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other reason:

3. Information about the notifying party

Name:	Registered office and state:
Oppenheimer Funds, Inc.	Denver, Colorado United States of America

4. Names of shareholders
With 3 % or more voting rights, if different from 3.

Oppenheimer Global Opportunities Fund

5. Date on which contact with limit occurred:

27.07.2018

6. Total proportion of voting rights

	Proportion of voting rights (Total 7.a.)	Share instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of issuer
New	3,07 %	0,00 %	3,07 %	7744088
Last communication	n/a %	n/a %	n/a %	/

7. Details regarding existing number of voting rights
a. Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (§ 33 WpHG)	assigned (§ 34 WpHG)	direct (§ 33 WpHG)	assigned (§ 34 WpHG)
DE000A0JQ5U3		237614	%	3,07 %
Total	237614		3,07 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of instrument	Due date/ expiration	Exercise period / term	Voting rights absolute	Voting rights in %
				%
		Total		%

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instrument	Due date/ expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights absolute	Voting rights in %
					%
			Total		%

8. Information relating to the notifying party

X	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Companies	Voting rights in %, if 3 % or higher	Instruments in %, if 5 % or higher	Total in %, if 5 % or higher

9. For power of attorney pursuant to section 34 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 No. 6 WpHG)

Date of the Annual General Meeting	
Total proportion of voting rights after the Annual General Meeting:	% (corresponds to voting rights)

10. Miscellaneous information:

Notification of voting rights

1. Information concerning the issuer

Name:	Manz AG
Street, House No.:	Steigäckerstr. 5
ZIP code:	72768
Location:	Reutlingen Deutschland
Legal Entity Identifier (LEI):	529900B635NV0KEEOR57

2. Reason for the communication

	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
X	Other reason: Acquisition and merger with Oppenheimer Funds Inc. : see section 10

3. Information about the notifying party

Legal entity: Invesco Ltd. Registered office, State: Hamilton, Bermuda

4. Names of shareholders
With 3 % or more voting rights, if different from 3.

Invesco Oppenheimer Global Opportunities Fund Short Term

5. Date on which contact with limit occurred:

24.05.2019

6. Total proportion of voting rights

	Proportion of voting rights (Total 7.a.)	Share Instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights in accordance with section 41 of the German Securities Trading Act (WpHG)
new	6,46 %	0,00 %	6,46 %	7.744.088
Last communication	n/a %	n/a %	n/a %	/

7. Details regarding existing number of voting rights
a. Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (§ 33 WpHG)	assigned (§ 34 WpHG)	direct (§ 33 WpHG)	assigned (§ 34 WpHG)
DE000A0JQ5U3	0	500.000	0,00 %	6,46 %
Total	500.000		6,46 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Voting rights absolute	Voting rights in %
			0	0,00 %
		Total	0	0,00 %

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights absolute	Voting rights in %
				0	0,00 %
			Total	0	0,00 %

8. Information relating to the notifying party

	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
X	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Companies	Voting rights in %, if 3 % or higher	Instruments in %, if 5 % or higher	Total in %, if 5 % or higher
Invesco Ltd.	%	%	%
Invesco Holding Company Limited	%	%	%
Invesco Holding Company(US), Inc.	%	%	%
Invesco Group Services, Inc.	%	%	%
Invesco Advisers, Inc.	6,46 %	%	6,46 %

9. For power of attorney pursuant to section 34 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting:
Total proportion of voting rights after the Annual General Meeting:

Proportion of voting rights	Instruments share	Total shares
%	%	%

10. Miscellaneous information:

Acquisition and merger with Oppenheimer Funds Inc. More information at the following link: https://ir.invesco.com/investor-relations/press-releases/default.aspx?_ga=2.153008441.1018859822.1558359393-832691936.1556037780

4. Ulrike Manz (Share of voting rights 5,44 %)

Notification of voting rights

After the initial public offering in September 2006, Ulrike Manz held 6 % of the voting rights.

Notification of voting rights

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Deutschland

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other reason:

3. Information about the notifying party

Name:	Registered office and state:
Mrs Ulrike Manz, Birth date: 28.08.1963	

4. Names of shareholders

With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

28.08.2018

6. Total proportion of voting rights

	Proportion of voting rights (Total 7.a.)	Share Instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of issuer
new	5,44 %	0 %	5,44 %	7744088
last communication	2,66 %	0 %	2,66 %	/

7. Details regarding existing number of voting rights

a. Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (§ 33 WpHG)	assigned (§ 34 WpHG)	direct (§ 33 WpHG)	assigned (§ 34 WpHG)
DE000A0JQ5U3	421489		5,44 %	%
Total	421489		5,44 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of instrument	Due date / experiation	Exercise period / term	Voting rights absolute	Voting rights in %
				%
		Total		%

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instruments	Due date / expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights absolute	Voting rights in %
					%
			Total		%

8. Information relating to the notifying party

X	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Company	Voting rights in %, if 3 % or higer	Instruments in %, if 5 % or higher	Total in %, if 5 % or higher

9. For power of attorney pursuant to section 34 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting:	
Total proportion of voting rights after the Annual General Meeting:	% (corresponds to voting rights)

10. Miscellaneous information:

5. Stephan Manz (Share of voting rights 5,16 %)

Notification of voting rights

1. Information concerning the issuer

Manz AG
Steigäckerstr. 5
72768 Reutlingen
Deutschland

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other reason:

3. Information about the notifying party

Name:	Registered office and State:
Mr. Stephan Manz, Birth date: 15.08.1988	

4. Names of shareholders

With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

28.08.2018

6. Total proportion of voting rights

	Proportion of voting rights (Total 7.a.)	Share Instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of issuer
new	5,16 %	0 %	5,16 %	7744088
last communication	n/a %	n/a %	n/a %	/

7. Details regarding existing number of voting rights

a. Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (§ 33 WpHG)	assigned (§ 34 WpHG)	direct (§ 33 WpHG)	assigned (§ 34 WpHG)
DE000A0JQ5U3	399889		5,16 %	%
Total	399889		5,16 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of Instruments	Due date / expiration	Exercise period / term	Voting rights absolute	Voting rights in %
				%
		Total		%

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instruments	Due date / term	Exercise period / term	Cash compensation or physical settlement	Voting rights absolute	Voting rights in %
					%
			Total		%

8. Information relating to the notifying party

X	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Company	Voting rights in %, if 3 % or higer	Instruments in %, if 5 % or higher	Total in %, if 5 % or higher

9. For power of attorney pursuant to section 34 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting:	
Total proportion of voting rights after the Annual General Meeting:	% (corresponds to voting rights)

10. Miscellaneous information:

6. Laura Manz (Share of voting rights 5,16 %)

Notification of voting rights

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Deutschland

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other information:

3. Information about the notifying party

Name:	Registered office and state:
Mrs. Laura Manz, Birth date: 03.07.1990	

4. Names of shareholders
With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

28.08.2018

6. Total proportion of voting rights

	Proportion of voting rights (Total 7.a.)	Share Instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of issuer
New	5,16 %	0 %	5,16 %	7744088
last communication	n/a %	n/a %	n/a %	/

7. Details regarding existing number of voting rights
a. Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (§ 33 WpHG)	assigned (§ 34 WpHG)	direct (§ 33 WpHG)	assigned (§ 34 WpHG)
DE000A0JQ5U3	399879		5,16 %	%
Total	399879		5,16 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of Instruments	Due date / expiration	Exercise period / term	Voting rights absolute	Voting rights in %
				%
		Total		%

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instruments	Due date / term	Exercise period / term	Cash compensation or physical settlement	Voting rights absolute	Voting rights in %
					%
			Total		%

8. Information relating to the notifying party

X	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Company	Voting rights in %, if 3 % or higer	Instruments in %, if 5 % or higher	Total in %, if 5 % or higher

9. For power of attorney pursuant to section 34 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting:	
Total proportion of voting rights after the Annual General Meeting:	% (corresponds to voting rights)

10. Miscellaneous information:

The following notifications pursuant to the Securities Trading Act (WpHG) were communicated in financial year 2020:

September 11, 2020

Notification of voting rights according to section 40 WpHG

1. 1. Information concerning the issuer

Name:	Manz AG
Street House No.:	Steigäckerstr. 5
ZIP code:	72768
Location:	Reutlingen Germany
Legal Entity Identifier (LEI):	529900B635NV0KEEOR57

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other reason:

3. Information about the notifying party

Legal entity: Janus Henderson Group plc Registeres Office, State: Saint Helier, Jersey

4. Names of shareholders

With 3 % or more voting rights, it different from 3.

TR European Growth Trust PLC

5. Date on which contact with limit occurred

9-4-2020

6. Total proportion of voting rights

	Proportion of voting rights (Total 7.a.)	Share instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights in accordance with section 41 of the German Securities Trading Act (WpHG)
new	3.14 %	0.00 %	3.14 %	7,744,088
Last communication	n/a %	n/a %	n/a %	

7. Details regarding existing number of voting rights
Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	direct (section 33 WpHG)	assigned (section 34 WpHG)	direct (section 33 WpHG)	assigned (section 34 WpHG)
DE000A0JQ5U3	0	243,481	0.00 %	3.14 %
Total	243,481		3.14 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Voting rights, absolute	Voting rights in %
			0	0.00 %
		Total	0	0.00 %

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights, absolute	Voting rights in %
				0	0.00 %
			Total	0	0.00 %

8. Information relating to the notifying party

	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
X	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Companies	Voting rights in %, if 3 % or higher	Instruments in %, if 5 % or higher	Totals in %, if 5 % or higher
Janus Henderson Group plc	%	%	%
Henderson Group Holdings Asset Management Limited	%	%	%
HGI Asset Management Group Limited	%	%	%
Henderson Global Group Limited	%	%	%
Henderson Holdings Group Limited	%	%	%
HGI Group Limited	%	%	%
Henderson Global Investors (Holdings) Limited	%	%	%
Henderson Global Investors Limited	3,14 %	%	%

9. For power of attorney pursuant to section 22 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting:

Total proportion of voting rights (6.) after the Annual General Meeting:

Proportion of voting rights	Instruments share	Total shares
(in %)	(in %)	(in %)

10. Miscellaneous information:

September 11, 2020

Notification of voting rights according to section 40 WpHG

1. Angaben zum Emittenten

Name:	Manz AG
Street Nouse No..:	Steigäckerstr. 5
ZIP code:	72768
Location:	Reutlingen Germany
Legal Entity Identifier (LEI):	529900B635NV0KEEOR57

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other reason:

3. Information about the notifying party

Legal entity: TR European Growth Trust PLC Registered office, State: London, Great Britain

4. Names of shareholders

With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

9-4-2020

6. Gesamtstimmrechtsanteile

	Proportion of voting rights (Total 7.a.)	Share Instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights in accordance with section 41of the German Securities Trading Act (WpHG)
New	3,14 %	0,00 %	3,14 %	7.744.088
last communication	n/a %	n/a %	n/a %	/

7. Details regarding existing number of voting rights
Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (section 33 WpHG)	assigned (section 34 WpHG)	direct (section 33 WpHG)	assigned (section 34 WpHG)
	243.481	0	3,14 %	0,00 %
Total	243.481		3,14 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Voting rights, absolute	Voting rights in %
			0	0.00 %
		Total	0	0.00 %

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights, absolute	Voting rights in %
				0	0.00 %
			Total	0	0.00 %

8. Information relating to the notifying party

X	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Companies	Voting rights in %, if 3 % or higher	Instruments in %, if 5 % or higher	Totals in %, if 5 % or higher

9. For power of attorney pursuant to section 22 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting:

Total proportion of voting rights (6.) after the Annual General Meeting:

Proportion of voting rights	Instruments share	Total shares
(in %)	(in %)	(in %)

10. Miscellaneous information:

November 5, 2020

Notification of voting rights according to section 40 WpHG

1. Information concerning the issuer

Name:	Manz AG
Street House No.:	Steigäckerstr. 5
ZIP code:	72768
Location:	Reutlingen Germany
Legal Entity Identifier (LEI):	529900B635NV0KEEOR57

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other reason:

3. Information about the notifying party

Legal entity: Janus Henderson Group plc Registered office, State: Saint Helier, Jersey

4. Names of shareholders
With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

11-3-2020

6. Total proportion of voting rights

	Proportion pf voting rights (Total 7.a.)	Share instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights in accordance with section 41 of the German Securities Trading Act (WpHG)
New	2,97 %	0,00 %	2,97 %	7.744.088
Last communication	3,14 %	0,00 %	3,14 %	/

7. Details regarding existing number of voting rights
Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (§ 33 WpHG)	assigned (§ 34 WpHG)	direct (§ 33 WpHG)	assigned (§ 34 WpHG)
DE000A0JQ5U3	0	229.845	0,00 %	2,97 %
Total	229.845		2,97 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Voting rights, absolute	Voting rights in %
			0	0.00 %
		Total	0	0.00 %

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights, absolute	Voting rights, in %
				0	0.00 %
			Total	0	0.00 %

8. Information relating to the notifying party

	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
X	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Companies	Voting rights in %, if 3 % or higher	Instruments in %, if 5 % or higher	Totals in %, if 5 % or higher
Janus Henderson Group plc	%	%	%
Henderson Group Holdings Asset Management Limited	%	%	%
HGI Asset Management Group Limited	%	%	%
Henderson Global Group Limited	%	%	%
Henderson Holdings Group Limited	%	%	%
HGI Group Limited	%	%	%
Henderson Global Investors (Holdings) Limited	%	%	%
Henderson Global Investors Limited	%	%	%

9. For power of attorney pursuant to section 22 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting:

Total proportion of voting rights (6.) after the Annual General Meeting:

Proportion of voting rights	Instruments share	Total shares
(in %)	(in %)	(in %)

10. Miscellaneous information:

November 5, 2020

Notification of voting rights according to section 40 WpHG

1. Information concerning the issuer

Name:	Manz AG
Street, House No..:	Steigäckerstr. 5
ZIP code:	72768
Location:	Reutlingen Germany
Legal Entity Identifier (LEI):	529900B635NV0KEEOR57

2. Reason for the communication

X	Acquisition or disposition of shares with voting rights
	Acquisition or disposition of instruments
	Change in total number of voting rights
	Other reason:

3. Information about the notifying party

Legal entity: TR European Growth Trust PLC
Registered Office, State: London, Great Britain

4. Names of shareholders

With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

11-3-2020

6. Total proportion of voting rights

	Proportion of voting rights (Total 7.a.)	Share Instruments (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights in accordance with section 41 of the German Securities Trading Act (WpHG)
new	2,97 %	0,00 %	2,97 %	7.744.088
last communication	3,14 %	0,00 %	3,14 %	/

7. Details regarding existing number of voting rights
Voting rights (sections 33, 34 WpHG)

ISIN	absolute		in %	
	direct (§ 33 WpHG)	assigned (§ 34 WpHG)	direct (§ 33 WpHG)	assigned (§ 34 WpHG)
DE000A0JQ5U3	229.845	0	2,97 %	0,00 %
Total	229.845		2,97 %	

b.1. Instruments in the sense of section 38 (1) no. 1 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Voting rights, absolute	Voting rights in %
			0	0.00 %
		Total	0	0.00 %

b.2. Instruments in the sense of section 38 (1) no. 2 WpHG

Type of instrument	Due date / expiration	Exercise period / term	Cash compensation or physical settlement	Voting rights, absolute	Voting rights, in %
				0	0.00 %
			Total	0	0.00 %

8. Information relating to the notifying party

X	Notifying party (3.) is neither controlled nor does notifying party control other companies which hold voting rights of the issuer (1.) or to which voting rights of the issuer are attributed.
	Complete chain of subsidiaries starting with the highest controlling person or the highest controlling company:

Companies	Voting rights in %, if 3 % or higher	Instruments in %, if 5 % or higher	Total in %, if 5 % or higher

9. For power of attorney pursuant to section 22 (3) WpHG
(only possible with assignments pursuant to section 34 (1) sentence 1 no. 6 WpHG)

Date of the Annual General Meeting:

Total proportion of voting rights (6.) after the Annual General Meeting:

Proportion of voting rights	Instruments share	Total shares
(in %)	(in %)	(in %)

10. Miscellaneous information:

Proposed appropriation of profit

The annual financial statements of Manz AG as of December 31, 2020, closed with a net loss of EUR 6,143,414.72 (previous year: TEUR 6,483,671.85). The Management Board proposes that this net loss be carried forward to a new account.

Reutlingen, March 23, 2021

Manz AG

Martin Drasch Chief Executive Officer	Manfred Hochleitner	Jürgen Knie

MANZ AG, REUTLINGEN

DEVELOPMENT OF FIXED ASSETS IN THE FISCAL YEAR 2020

	ACQUISITION AND MANUFACTURING COSTS					ACCUMULATED DEPRECIATION					NET BOOK VALUES	
	Jan. 01, 2019 euros	Additions euros	Repostings euros	Disposals euros	Dec. 31, 2020 euros	Jan. 01, 2019 euros	Additions euros	Disposals euros	Attribution euros	Dec. 31, 2020 euros	Dec. 31, 2020 euros	Dec. 31, 2019 euros
I. INTANGIBLE ASSETS												
1. Internally generated industrial property rights and similar rights and assets	53.168.935,67	4.614.822,61	0,00	324.551,91	57.459.206,37	36.447.513,73	4.055.629,21	1.345,17	0,00	40.501.797,77	16.957.408,60	16.721.421,94
2. Concessions, industrial property rights and similar right and assets, and licenses for such rights and assets, purchased against payment	12.675.832,21	624.475,70	0,00	83.572,65	13.216.735,26	11.921.545,48	187.781,38	0,00	0,00	12.109.326,86	1.107.408,40	754.286,73
	65.844.767,88	5.239.298,31	0,00	408.124,56	70.675.941,63	48.369.059,21	4.243.410,59	1.345,17	0,00	52.611.124,63	18.064.817,00	17.475.708,67
II. FIXED ASSETS												
1. Land, similar rights and buildings, including buildings on third-party land	1.537.000,05	0,00	0,00	0,00	1.537.000,05	1.261.911,05	45.991,00	0,00	0,00	1.307.902,05	229.098,00	275.089,00
2. Technical equipment and machinery	16.380.282,43	3.485,65	0,00	700,00	16.383.068,08	15.545.458,43	257.738,65	700,00	0,00	15.802.497,08	580.571,00	834.824,00
3. Other equipment, operating and office equipment	7.828.537,93	279.453,12	0,00	77.480,25	8.030.510,80	7.208.096,93	328.621,12	77.211,25	0,00	7.459.506,80	571.004,00	620.441,00
	25.745.820,41	282.938,77	0,00	78.180,25	25.950.578,93	24.015.466,41	632.350,77	77.911,25	0,00	24.569.905,93	1.380.673,00	1.730.354,00
III. FINANCIAL ASSETS												
1. Shares held in affiliated companies	53.343.155,12	0,00	0,00	10.773.777,17	42.569.377,95	3.373.000,00	0,00	0,00	2.593.000,00	780.000,00	41.789.377,95	49.970.155,12
2. Loans to affiliated companies	5.300.618,19	0,00	0,00	4.383.923,00	916.695,19	0,00	0,00	0,00	0,00	0,00	916.695,19	5.300.618,19
3. Participations	24.245.265,11	0,00	0,00	0,00	24.245.265,11	12.545.000,00	4.440.000,00	0,00	0,00	16.985.000,00	7.260.265,11	11.700.265,11
	82.889.038,42	0,00	0,00	15.157.700,17	67.731.338,25	15.918.000,00	4.440.000,00	0,00	2.593.000,00	17.765.000,00	49.966.338,25	66.971.038,42
	174.479.626,71	5.522.237,08	0,00	15.644.004,98	164.357.858,81	88.302.525,62	9.315.761,36	79.256,42	2.593.000,00	94.946.030,56	69.411.828,25	86.177.101,09

Manz AG, Reutlingen

Management Report for the Financial Year 2020

1. Business Report

1.1 Company Situation

1.1.1 Corporate Structure and Shareholdings

Formed in 1987, Manz AG is a global high-tech equipment manufacturing company. Its business activities comprise five segments: Electronics, Energy Storage, Solar, Contract Manufacturing, and Service. With many years of expertise in automation, laser processing, vision and metrology, as well as wet chemistry, the company offers a broad portfolio of products and solutions to manufacturers and their suppliers in various industries. In addition to customized production solutions, this also includes individual machines and modules that can be linked together to form complete, individual system solutions. The company also offers comprehensive services around the core technological competencies of Manz AG: from simulation and factory planning, to process and prototype development, to customer training and after-sales service. Manz AG is a development partner for industrial companies, and in this role helps to support new technologies to market maturity.

As the parent company of the Manz Group, the company held 100 % of the shares in a domestic subsidiary in Tübingen and in five foreign subsidiaries based in Hungary, Italy, the USA, Slovakia and Hong Kong on the reporting date. Furthermore, 100 % shares were held in a second-tier subsidiary in China, two in Taiwan and 75 % in a second-tier subsidiary in India. There is a 100 % shareholding in a second-tier subsidiary in the British Virgin Islands. Manz AG holds shares amounting to 56 % in the subsidiary Suzhou Manz New Energy Equipment Co, Ltd. based in China. Via the second-tier subsidiary in Taiwan, there is an 80.5 % stake in the not fully consolidated Talus Manufacturing Ltd. based in Taiwan, which was founded together with a semiconductor manufacturer.

In 2020, a fully consolidated second-tier subsidiary with a 100 % shareholding, Manz (Shanghai) Trading Company Ltd, Shanghai, China, was liquidated. Its assets, liabilities and equity went to Manz Asia Ltd. Hong Kong / PR China.

1.1.2 Business Model

Manz AG has a comprehensive technology portfolio. The core of the company's strategy is to make use of the technology portfolio across all industries and regions. This cross-segment exchange of technology and expertise not only offers a high level of flexibility in the realization of individual customer solutions, but also the possibility of generating internal synergies and making economic use of them.

Manz AG maintains business relationships with manufacturers and their suppliers, especially in the automotive and electro-mobility, battery manufacturing, electronics, energy, and medical technology industries. As a high-tech equipment manufacturing company, Manz operates internationally and has development and production sites in Germany, Slovakia, Hungary, Italy, China and Taiwan as well as further sales and service branches in India and the US. Manz AG also has long-standing customer relationships in Asia, which is an important region for the global economy: With nearly 450 employees at its locations in Taiwan and China, around 30 % of Manz employees work in this region, forming a strong presence in this growth market.

Manz AG's goal is to achieve a sustained increase in competitiveness with earnings-oriented growth. Manz AG aims to increase its competitiveness and profitability through a strong focus on fully interlinked, individual system solutions and equipment, and by expanding its global customer base. The cross-regional use of technological expertise and its standardization beyond industry boundaries significantly reduces development effort and time and continuously creates new unique selling points, creating opportunities for additional possible applications. Growth opportunities likewise arise from individual development projects for customer-specific pilot lines with corresponding scaling potential. In addition, continuous targeted organizational, procedural and process improvements in all segments of the Group are intended to contribute to further increasing the competitiveness and profitability of the company.

1.1.3 Control System and Performance Indicators

At the Group level, Manz AG is organized for the purpose of corporate management by product and service segments and consists of the five business segments: Solar, Electronics, Energy Storage, Contract Manufacturing, and Service. In order to decide on the allocation of resources and control the profitability of the divisions, they are monitored separately by management. Details of the course of business are provided to the entire Managing Board through regular reports and management meetings. As a result, it is possible for the respective Managing Board to control the company in a timely manner.

Principles and Goals of Financial Management

Manz AG's key performance indicators for corporate development are revenue, earnings before interest, taxes, depreciation and amortization (EBITDA), earnings before interest and taxes (EBIT), and the equity ratio.

In the long-term (5 years), the Managing Board has defined the following target values for the Group:

- Revenue: Revenue: an annual average revenue increase of between 10 % and 20 % is forecast.
- EBIT margin: After application of IFRS 16, a target margin of 10 % is defined for the EBIT margin from 2019.
- EBITDA margin: A target margin of more than 15 % is defined for the EBITDA margin after the application of IFRS 16 in 2019.
- Equity ratio: The target corridor for shareholders' equity as a percentage of total equity and liability is between 40 % and 60 %.
- Gearing: Manz AG has defined gearing as a ratio of net financial liabilities (short-term and long-term bank liabilities less cash and cash equivalents) to equity before minority interests of less than 50 % as a target.

	Group performance indicators (IFRS)		Performance indicators of Manz AG as per German Commercial Code (HGB)	
in %	2020	2019	2020	2019
Revenue (in millions of EUR)	236.8	264.4	78.7	37.2
EBITDA margin	8.0	3.6	0.5	-15.8
EBIT margin	3.0	-2.9	-3.4	-19.5
Equity ratio	36.7	38.8	19.0	24.1
Gearing	5.5	10.5	-1.28	-0.74

Manz AG's financial management system is centrally organized. In order to minimize risks and exploit Group-wide optimization potential, the company bundles decisions on financing, cash investments and exchange rate hedging of subsidiaries within the Group. In this context, the company follows value-based financing principles, in order to secure its liquidity at all times, limit financial risks and optimize the cost of capital. In addition, Manz strives for a well-balanced debt maturity profile. Further information on the management of the individual financial risks can be found in the notes to the consolidated financial statements under "Reporting on financial instruments".

1.1.4 Research and Development

Research and development also played an important role in financial year 2020 for Manz as a high-tech equipment manufacturer. With more than 200 engineers, technicians and scientists in the company or more than 500 at its group-wide development locations, Manz AG focuses on the development of manufacturing, assembly and handling technologies, integrated into modularized individual machines, equipment and interlinked system solutions. The Manz AG comprehensive "R & D Council" is intended to enable internal cross-segment integration of competencies.

Manz maintains numerous cooperative arrangements with research institutions, universities and colleges. For example, the company is active in the segment Energy Storage in the Lithium-Ion Battery (KLiB) competence network and as a committee member of the European Technology and Innovation Platform (ETIP). The goal in each case is to create the conditions for establishing European battery production within the European Commission.

In addition, Manz AG has an advisory role in the European LIPLANET project under the umbrella of the European Commission's "Horizon 2020 Project". This project aims to coordinate the European research and pilot lines for the production of lithium-ion battery cells and to ensure better efficiency of European battery research.

At the EU level, Manz AG, in addition to Saft S.A., Solvay S.A. and Siemens AG, is also a member of the "EU Battery Alliance", a complementary initiative to the "Horizon 2020" EU program.

Since the beginning of 2018 until March 2020, Manz AG had conducted research and development efforts in processes for the large-scale production of lithium-ion battery cells as part of the Fab4Lib project. Other project partners include BMZ Battery Assembly Group GmbH, SGL CARBON GmbH, Umicore AG & Co. KG, Siemens AG, ThyssenKrupp System Engineering GmbH and RWTH Aachen University. The aim of the project is to define or develop the basis for a competitive production line with an annual capacity of 6 GWh. This modular line is then to be set up where the corresponding capacity is required. Fab4Lib combines necessary competencies in order to completely plan German mass battery cell production and to realize cell production in a timely and cost-effective manner.

Another national research project related to battery manufacturing in which Manz is participating with research tasks is the STACK project. Here, Manz is further developing, among other things, laminating and stacking technology, which is judged to be a key technology for the manufacture of solid-state batteries, in particular. The partners are ZSW and the company Freudenberg.

In another project funded by the BMWi, Manz is working on the development of innovative housing technologies for the production of prismatic battery cells together with the Technical University of Munich, Elring-Klinger and RWTH Aachen University.

Investments in R&D amounted to EUR 9.9 million in 2020 (previous year: EUR 9.2 million). The R&D ratio based on the lower total output increased to 8.0 % (previous year: 7.2 %) Capitalized development costs alone amounted to 4.6 % (previous year: 3.3 %).

In the 2020 reporting period, scheduled amortization of capitalized development costs in the amount of EUR 4.1 million (previous year: EUR 3.8 million) were applied. The company will also continue to place a clear emphasis on R&D activities in future. Manz AG strives for an annual rate of R & D to revenues of 5 % on average in order to provide sustained and long-term consolidation of its technological positioning and its innovations in the relevant target markets.

1.1.5 Employees

Qualified and motivated employees provide the basis of Manz AG's long-term success. As of December 31, 2020, there were 437 employees (previous year: 438), as well as 39 trainees (previous year: 39) employed by Manz AG.

1.2 General Conditions

1.2.1 Market and Competitive Environment

1.2.1.1 Economic Market Environment

Global economic activity in 2020 was dominated by the COVID-19 pandemic. According to the Kiel Institute for the World Economy (IfW), the global slump in economic activity in March and April was initially followed by strong catch-up effects as the pandemic situation began to ease, along with the associated easing of the economic situation. In the wake of the second wave of infection, countries around the world, including Germany, took numerous measures in November and December, which again had a noticeable impact on economic development in the fourth quarter of 2020. However, global trade was more robust this time than in the first half of the year. In December 2020, the IfW estimated that the global economy would contract by -3.8 % for the year as a whole (2019: increase of +3.0 %). According to the IfW, economic output in the USA decreased by -3.6 % compared with 2019 (increase of +2.3 %). According to the IfW, the Chinese economy expanded by 1.8 % in 2020, compared with economic growth of 6.2 % in 2019. By contrast, the European economy recorded a sharp decline in economic output of -6.7 % (previous year: increase of +1.2 %). The German economy also suffered from the restrictions resulting from the COVID-19 pandemic. According to the IfW, economic output fell by -5.6 % compared with growth of 0.5 % in the previous year.

1.2.1.2 Engineering Industry

In November 2020, the German Engineering Federation (VDMA) predicted a global decline in industry revenues for 2020 of between -7 and -9 %. In 2019, there had still been zero growth. The main reason for the decline was the COVID-19 pandemic, which caused a sharp drop in machinery production, particularly during the first lockdown in April and May. By contrast, the industry in China recorded growth of 5 % in 2020, up from 4 % in 2019, as the measures taken by the country largely brought the COVID-19 pandemic under control during the year. Germany was hit harder by the dislocations caused by the COVID-19 pandemic: Here, according to the VDMA's December forecast, the mechanical engineering sector fared significantly worse than in the previous year (- 2.6 %), with a 15 % drop in revenues. From January to November 2020, the German mechanical engineering sector also received 7 % fewer orders than in the previous year, although according to a VDMA release from November, the order situation improved again slightly toward the end of the year.

1.2.1.3 Industries of the Core Segments

In the VDMA's photovoltaic production equipment sector, incoming orders in Germany were weaker during the first COVID-19 wave in the second quarter of 2020 than at the beginning of the year. However, the order situation in the third quarter of 2020 recovered significantly to the level of the first quarter. The revenue trend in the third quarter also points to a sustained market recovery in the second half of 2020. Supported by catch-up effects from the second quarter, revenues in the period from July to September were more than 40 % higher than in the previous quarter. For the final quarter of 2020, the VDMA expected a further stabilization of overall revenues.

In the segment Electronics, Manz AG addresses several industries with its machines, which developed differently in 2020. These include equipment for the electronics and display industries, as well as assembly lines for other industries, including, for example, the production of cell contact systems (CCS) for electric vehicles.

In the VDMA business climate survey at the end of the third quarter of 2020, German manufacturers of equipment for electronics production expected a 13.1 % decline in revenues for the year as a whole. The majority of the electronics industry's revenues generated in the first nine months of 2020 came from Germany, at 40.7 % (9M 2019: 29 %). Europe accounted for 28.8 % of revenues (9M 2019: 22 %). By contrast, Asia's importance declined sharply with a 16.0 % share of revenues (9M 2019: 33 %).

With regard to the market for LCD and AMOLED displays, Display Supply Chain Consultants (DSCC) expects global revenues to stagnate at an anticipated USD 103 billion in 2020. In this context, OLED technology will be able to expand its share compared to LCD technology, which is more widespread in terms of volume, due to the greater stability of its price level. According to Prismark revenues of printed circuit boards grew 6.4 % globally in 2020 compared to the previous year.

The market for assembly, assembly systems and industrial robots in Germany was characterized by a difficult overall environment in 2020. In the first quarter of 2020, revenues already fell by 31.9 % to EUR 1.8 billion compared with the fourth quarter of 2019. This development continued in the second and third quarters, with revenues of EUR 1.6 billion and EUR 1.7 billion, respectively. Overall, revenues in this sector amounted to EUR 5.1 billion in the first three quarters of 2020. In contrast, the market segment served by Manz for assembly lines for the manufacture of cell contacting systems was able to benefit from the dynamics in the market for electric vehicles. The Samsung EV Research Center estimates that global revenues of electric vehicles (EVs) will reach 2.79 million vehicles by 2020. This means EVs will account for 3.8 % of global car revenues (2019: 2.6 %). EV turnover showed particular momentum in Europe in the third quarter, rising 171 % to 380,000 units. EVs thus accounted for 10 % of European turnover volume. This is due not only to government subsidies, but also to additional offerings by automakers in the lower price segment. For the fourth quarter of 2020, the Samsung EV Research Center expects a decline in demand compared to the previous quarter, as some EU countries had imposed lockdown measures again due to a second COVID-19 wave.

The market environment in the segment Energy Storage was also positive. The machine manufacturers benefited, in particular, from the very positive development in the market for electric vehicles described above. According to the VDMA, the revenue growth forecast for the Battery Production Equipment segment in 2020 was 6.1 % (as of September 2020). Accordingly, the largest markets for revenue in 2020 were Asia with a 36 % share of revenue, and Germany and Europe around 50 %. For EV batteries shipped, Samsung EV Research Center expects a volume of 140 GWh worldwide in 2020, which corresponds to an increase of 29 % compared to the previous year. For Europe, the turnover estimate is 52 GWh, an increase of 104 % year-on-year.

2. Explanations of Business Results and Analysis of Results of Operations, Net Assets, Liquidity Position

2.1 Financial Performance

In the 2020 financial year, sales revenues of EUR 78.7 million (previous year: EUR 37.2 million) were generated, exceeding the forecast sales increase of 30 % to 40 % for 2020. At EUR 53.7 million, most of the sales revenue was generated in Germany. Other sales regions were China with EUR 4.5 million, the rest of Europe with EUR 6.9 million, the USA with EUR 4.6 million, Taiwan with EUR 1.0 million and other countries in the world with EUR 8.0 million.

Inventories of work in progress and finished goods increased by EUR 39.1 million in 2020 (previous year: increase of EUR 87.0 million) and resulted primarily from orders in the Solar and Electronics segments, which were behind schedule due to the Corona pandemic. Total operating performance thus decreased by EUR 5.0 million to EUR 123.4 million in the fiscal year (previous year: EUR 128.4 million). Furthermore, new orders received in the Energy Storage segment at the end of the year did not yet have any effect on earnings. Own work capitalized amounted to

EUR 5.6 million (previous year: EUR 4.2 million) and mainly includes capitalized development costs of EUR 4.6 million.

In the Electronics business unit, sales in 2020 were slightly lower than in the previous year at EUR 15.6 million (previous year: EUR 16.3 million) due to postponements as a result of the Corona pandemic. Ongoing customer projects will lead to sales in 2021 and to an increase in sales.

The Solar segment was characterized by the further processing of the large CIGS orders as well as further customer orders already won in 2019, which will not lead to sales and an increase in sales until 2021 due to the corona pandemic and delays on the part of the customer. Sales revenues amounted to EUR 6.0 million in 2020 (previous year: EUR 0.4 million).

The customer orders received with a delay in 2019 in the Energy Storage business area led to an increase in sales of EUR 36.2 million to EUR 48.4 million in fiscal 2020 (previous year: EUR 12.2 million).

Despite the prevailing Corona pandemic and the associated more difficult economic conditions, sales revenue in the Service segment increased in 2020 from EUR 3.2 million in the previous year to EUR 4.0 million in the reporting year.

In the Contract Manufacturing segment, sales revenue decreased to EUR 0.5 million in 2020 (previous year: EUR 1.2 million). Sales to affiliated companies increased from EUR 4.0 million to EUR 4.3 million.

Other operating income amounted to EUR 5.1 million (previous year: EUR 2.0 million). This mainly includes income from the write-up of financial assets amounting to EUR 2.6 million (previous year: EUR 0.0 million), income from the reversal of other provisions amounting to EUR 1.2 million (previous year: EUR 1.4 million) with a significant share of income from the reversal of warranty provisions amounting to EUR 0.6 million (previous year: EUR 1.0 million) as well as government grants received for ongoing research projects in the Solar and Energy Storage divisions amounting to EUR 0.4 million (previous year: EUR 0.0 million).

The cost of materials decreased to EUR 71.3 million in 2020 (previous year: EUR 94.4 million) with lower total output. Despite the ongoing material-intensive CIGS projects, the cost of materials ratio fell significantly to 57.8 % (previous year: 73.5 %). This is due to the less material-intensive orders from the Energy Storage and Electronics areas that are in progress in 2020.

Personnel expenses increased to EUR 36.7 million (previous year: EUR 34.8 million) due to an increase in the number of employees in the technical area during the fiscal year, which led to an increase in the personnel expense ratio in 2020 to 29.8 % (previous year: 27.1 %), taking into account the decline in total output.

Amortization of intangible assets and depreciation of property, plant and equipment remained constant at EUR 4.9 million in 2020 compared with the previous year (EUR 4.8 million). Of this amount, EUR 4.1 million (previous year: EUR 3.8 million) was attributable to amortization of capitalized development costs. As in the previous year, no impairment losses were recognized.

Other operating expenses decreased from EUR 21.5 million in the previous year to EUR 19.9 million in fiscal year 2020. Among other things, this includes expenses for sales commissions to subsidiaries for acquired customer orders in the amount of EUR 1.9 million (previous year: EUR 1.2 million), legal and consulting fees in the amount of EUR 1.8 million (previous year: EUR 1.6 million) and EUR 1.1 million (previous year: EUR 1.2 million) for guarantee commissions, which are mainly attributable to customer projects in the solar sector. Also included are freight costs for outgoing freight, mainly for large CIGS projects, in the amount of EUR 0.6 million (previous year: EUR 1.4 million).

The financial result was EUR -5.1 million (previous year: EUR -11.9 million). This item mainly includes write-downs on financial assets amounting to EUR 4.4 million (previous year: EUR 11.7 million), which exclusively comprises the write-down on the 11.1 % investment in NICE PV Research Ltd. In addition, interest and similar expenses of EUR 0.8 million (previous year: EUR 0.5 million) were incurred in the financial result in 2020. The result after taxes improved by EUR 27.7 million compared to the previous year to EUR -9.3 million (previous year: EUR -37.0 million).

In the 2020 financial year, a net loss of EUR 9.7 million was generated (previous year: net loss of EUR 37.6 million). A withdrawal from the capital reserve of EUR 10.0 million, taking into account the loss carried forward from the previous year, resulted in a net loss of EUR -6.1 million (previous year: EUR -6.5 million).

2.2 Financial Position

As of December 31, 2020, total assets amounted to EUR 234.0 million, up EUR 9.9 million on the previous year's figure of EUR 224.1 million. The net loss for the year of EUR 9.7 million led to a decrease in equity as shown in the balance sheet from EUR 54.0 million to EUR 44.4 million. The subscribed capital of EUR 7.7 million remained unchanged and corresponds to 7,744,088 no-par value bearer shares. The equity ratio as of the balance sheet date decreased from 24.1 % in the previous year to 19.0 %.

Liabilities to affiliated companies increased from EUR 35.3 million to EUR 43.5 million, mainly resulting from deliveries for the large-scale CIGS projects as of the balance sheet date. Trade payables decreased from EUR 12.7 million in the previous year to EUR 11.8 million in the reporting year, and advance payments received on orders increased from EUR 107.9 million in the previous year to EUR 117.3 million. The advance payments received are largely attributable to the ongoing large CIGS orders and advance payments for projects in the Energy Storage area.

Provisions decreased from EUR 12.3 million in 2019 to EUR 10.2 million. This primarily includes provisions for pensions in the amount of EUR 3.1 million (previous year: EUR 3.1 million), tax provisions in the amount of EUR 0.8 million (previous year: EUR 0.5 million), which relate to withholding tax to be paid for existing receivables from services to Manz Taiwan Ltd. and Manz China Suzhou Ltd. as well as provisions for invoices not yet received in the amount of EUR 0.4 million (previous year: EUR 0.8 million). Due to a payment made in 2020, earn-out obligations in the fiscal year amounted to 0 euros (previous year: EUR 3.0 million).

Fixed assets accounted for 29.7 % of Manz AG's assets as of the balance sheet date and decreased by EUR 16.8 million to EUR 69.4 million (previous year: EUR 86.2 million). The decline resulted primarily from a decrease in financial assets, which accounted for 72.0 % of non-current assets as of the balance sheet date and fell from EUR 67.0 million in the previous year to EUR 50.0 million in the reporting year. The reasons for this were the reduction of loans to affiliated companies to EUR 0.9 million (previous year: EUR 5.3 million) due to repayments received in the amount of EUR 4.4 million, a reduction of EUR 10.8 million in the investment in the subsidiary Manz Asia due to a capital reduction carried out, as well as an impairment of EUR 4.4 million on the 11.1 % investment in Nice PV Research Ltd. In addition, there were write-ups on the shares in the affiliated companies Manz Italy Srl. and Manz Hungary Kft. totaling EUR 2.6 million.

Current assets increased by EUR 26.7 million from EUR 137.5 million in the previous year to EUR 164.2 million. There was an increase in cash and cash equivalents from EUR 40.2 million in the previous year to EUR 56.8 million due to advance payments received. Inventories increased from EUR 95.6 million in the previous year to EUR 104.9 million and are primarily attributable to CIGS orders and orders from the Electronics segment. Advance payments made increased to EUR 66.3 million as of the balance sheet date (previous year: EUR 61.5 million). Trade receivables increased from EUR 0.6 million to EUR 1.1 million. Receivables from affiliated companies amounted to EUR 0.2 million as of the balance sheet date (previous year: EUR 0.0 million).

2.3 Liquidity Position

In the 2020 financial year, cash flow from operating activities developed positively despite the net loss for the year of EUR -9.7 million, amounting to EUR 7.3 million (previous year: EUR -19.2 million). There were cash outflows from the increase in inventories and other assets amounting to EUR -10.1 million (previous year: EUR -6.1 million). This was offset by cash inflows of EUR 19.3 million from the increase in liabilities and other equity and liabilities (previous year: EUR 8.5 million). This included cash inflows from the increase in liabilities of EUR 7.2 million (previous year: EUR 28.7 million), which were mainly influenced by the large CIGS orders, from the decrease in other liabilities of EUR 2.7 million (previous year: cash outflow of EUR 2.5 million), and cash inflows from advance payments received of EUR 9.4 million (previous year: cash outflow: EUR 22.7 million) for newly received customer orders, which were mainly attributable to the segment Energy Storage.

Cash flow from investing activities amounted to EUR 9.8 million in 2020 (previous year: EUR -3.7 million) and, in addition to the cash outflows from investing activities for intangible assets and property, plant and equipment of EUR -5.5 million (previous year: EUR -4.3 million), was largely due to the cash inflow from the acquisition of the Energy Storage business unit in the amount of EUR 1.0 million (previous year: EUR 1.0 million). EUR), the cash flow from financing activities was significantly influenced by the cash inflows from financial assets in the amount of EUR 15.2 million (previous year: EUR 0.4 million), which resulted from the repayments received from affiliated companies for loans in the amount of EUR 4.4 million and from the distribution of the capital reduction at Manz Asia.

Cash flow from financing activities in the 2020 fiscal year was limited to cash outflows from interest payments in the amount of -0.5 million euros (previous year: -0.2 million euros), which were primarily made to the affiliated companies Manz Taiwan Ltd. and Manz China Suzhou Ltd.

At the end of the 2020 fiscal year, there were positive cash and cash equivalents of EUR 56.8 million (previous year: EUR 40.2 million). This includes unavailable financial resources in the amount of EUR 5.0 million (previous year: EUR 5.0 million) due to cash deposits for advance payment guarantees issued to customers by financial institutions. As of the balance sheet date, Manz AG had an unused credit line with banks of 5.0 million euros (December 31, 2019: EUR 4.8 million) at its disposal.

Based on the current liquidity planning, Manz AG will be able to meet its current and future payment obligations.

For further information on liquidity and types of financing, please refer to the liquidity and financing risks in the risk report.

2.4 General Statement on the Economic Situation of the Company

In the 2020 financial year, total operating performance of EUR 123.4 million was achieved (previous year: EUR 128.4 million), which was primarily generated in addition to the large CIGS orders in the Energy Storage and Electronics segments. The orders in the Energy Storage and Electronics areas are characterized by a significantly lower cost of materials ratio, so that the cost of materials fell by EUR 23.1 million to EUR 71.3 million with a cost of materials ratio of 57.8 % (previous year: 73.5 %) compared to the previous year. This essentially led to an improvement in the net result for the year to EUR -9.7 million (previous year: EUR -37.6 million).

The negative result for the year reduced equity to EUR 44.4 million (previous year: EUR 54.0 million) with an equity ratio of 19.0 % (previous year: 24.1 %). By contrast, advance payments received increased from EUR 107.9 million in the previous year to EUR 117.3 million due to further customer orders won, primarily in the Energy Storage segment. There was also an increase in inventories from EUR 95.6 million in the previous year to EUR 104.9 million, which, in addition to orders from the Electronics area, is mainly due to the further increase in project progress of the large CIGS orders in 2020. This also led to an increase in liabilities to affiliated companies to EUR 43.5 million (previous year: EUR 35.3 million). Financial assets decreased from EUR 67 million to EUR 50.0 million.

Cash and cash equivalents as of December 31, 2020 amounted to EUR 56.8 million (previous year: EUR 40.2 million). In this context, Manz AG generated cash and cash equivalents from operating activities in the amount of 7.3 million euros (previous year: -19.2 million euros), which, in addition to cash inflows from investing activities of 9.8 million euros (previous year: -3.7 million euros), led to an increase in cash and cash equivalents of 16.6 million euros as of the balance sheet date.

As a result of the positive earnings development in a difficult market environment characterized by the Corona crisis, Manz AG sees itself confirmed in its long-term optimization process and the forward-looking strategic development of recent years. With an order backlog of 563.5 million euros, developments in the market for electric mobility in particular underscore the potential for Manz AG.

2.5 Explanation of Target Achievement 2020

In the 2020 fiscal year, Manz AG generated revenues of 78.7 million euros (previous year: 37.2 million euros) and total operating revenue of 123.4 million euros (previous year: 128.4 million euros). In its operating business, Manz generated earnings before interest and taxes (EBIT) of -4.2 million euros (previous year: -25.1 million euros) and earnings before interest, taxes, depreciation and amortization (EBITDA) of 0.6 million euros (previous year: -20.3 million euros).

Due to the effects of the COVID 19 pandemic and customer-related delays, the development in total output in the 2020 financial year fell short of the original expectations of an increase of 30 % - 40 %. The reasons for this were that projects in the Solar and Electronics segments were delayed, in some cases significantly, during the course of the year, and the award of contracts for planned projects in the Energy Storage segment was also delayed in some cases on the timeline. The increase in total output already planned for 2020 can therefore in part only be realized in 2021.

By contrast, the forecast revenue increase of 30 % - 40 % for 2020 was significantly exceeded with a growth rate of 112 %.

A forecast positive EBITDA margin was achieved and was below the expected mid-single-digit percentage range. By contrast, a break-even EBITDA margin was not achieved. Due to the negative net result of EUR -9.7 million generated, the equity ratio fell from 24.1 % in the previous year to 19.0 % and did not result in an increase in the equity ratio to over 25 %. Despite the decrease in equity, but with increased bank balances of EUR 56.8 million (previous year: EUR 40.2 million), gearing improved from -0.74 to -1.28 and exceeded the figure forecast for 2020, which is comparable to 2019.

The targeted sales increase of 250 % - 300 % for 2020 in the Energy Storage segment was exceeded, resulting in sales of EUR 48.4 million (previous year: EUR 12.2 million). There was also an expected significant increase in sales in the Solar segment from EUR 0.4 million to EUR 6.0 million. In contrast, an increase in sales in the Electronics segment with achieved sales of EUR 15.6 million (previous year: EUR 16.3 million) could not be confirmed due to delays caused by the Corona pandemic. Sales in the Contract Manufacturing segment could not be maintained at the previous year's level of EUR 1.2 million and decreased to EUR 0.5 million.

2.6 Non-financial Performance Indicators

Manz AG is required to prepare a sustainability report or to submit a non-financial statement in accordance with the European Corporate Social Responsibility Directive and the provisions of sections 315b and 315c in conjunction with section 289c HGB (German Commercial Code). The non-financial consolidated statement is published separately from the consolidated management report in a separate sustainability report. For this purpose, the Managing Board of Manz AG has decided to use the German Sustainability Code (DNK) as a framework. The sustainability report and the non-financial Group statement can be viewed on our website www.manz.com in the "Investor Relations" section under "Publications" and in the "Company" section under the heading "Sustainability.”

2.7 Corporate Governance Statement

The corporate governance statement in accordance with sections 289f and 315d of the German Commercial Code (HGB) was prepared jointly for Manz AG and the Manz Group and published under the heading "Manz AG Corporate Governance Statement and Corporate Governance Report for the Financial Year 2020" on the company's website www.manz.com in the Investor Relations section under the heading "Corporate Governance – Corporate Governance Statement."

2.7 Disclosures in accordance with section 315a (1) HGB and explanatory report in accordance with section 176

(1) sentence 1 AktG on the disclosures in accordance with section 289A (1) and section 315a (1) HGB

Composition of subscribed capital

Manz AG’s subscribed capital is valued at EUR 7.7 and is divided into 7,744,088 no-par value bearer shares. All shares are associated with the same rights and duties. Each share grants its holder one vote at the Annual General Meeting. Each share offers the same share of profits. This would exclude treasury shares held by Manz AG, which do not entitle the company to any rights. At the present time, the company does not hold any treasury shares. In other respects, shareholders' individual rights and duties result from the provisions of the German Stock Corporation Act, particularly sections 12, 53a et seqq., 118 et seqq., and 186.

Restrictions that apply to voting rights or the transfer of shares

The Managing Board of Manz AG does not know of any agreements pertaining to restrictions on the use of voting rights or the transfer of shares.

Shareholdings that exceed 10 % of voting rights

As a result of notifications received regarding major holdings of voting rights pursuant to sections 33 and 34 of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG) and transactions involving company shares executed by managers pursuant to Article 19 of the Market Misuse Directive, the Managing Board is aware of the following direct and indirect holdings in the company's capital that exceed 10 % of the voting rights:

	Number of voting rights	Percentage of voting rights
Dieter Manz, Schlaitdorf	2,175,199	28.09 %
directly thereof (section 33 WpHG)	953,942	12.32 %
attributed (section 34 WpHG)	1,221,257	15.77 %
People's Republic of China, acting through the State-owned Asset Supervision Commission (SASAC) of the People's Government of Shanghai, People's Republic of China Full chain of subsidiaries: Shanghai Electric (Group) Corporation Shanghai Electric Group Company Limited Shanghai Electric Hongkong Co. Limited Shanghai Electric Germany Holding GmbH (shareholder)	1,523,480	19.67 %

Shares with special rights that confer authority to exercise control

The company does not have shares with special rights that confer authority to exercise control.

Type of voting right controls when employees are issued shares of company stock and do not directly exercise their control rights

Employees with holdings in the capital of Manz AG may directly exercise any control rights to which they are entitled based on the shares transferred to them in accordance with provisions of the company's Articles of Incorporation and the law.

Legal requirements and provisions of the Articles of Incorporation regarding the appointment and dismissal of members of the Managing Board and regarding amendments to the Articles of Incorporation

The appointment and dismissal of members of the Managing Board is governed by sections 84 and 85 of the German Stock Corporation Act. These sections stipulate that members of the Managing Board are to be appointed by the Supervisory Board for a period lasting a maximum of five years. Members may be repeatedly appointed or have their term extended, in either case for another period lasting a maximum of five years. Pursuant to section 5 of the company's Articles of Incorporation, the Managing Board may consist of one or more persons. The Supervisory Board appoints the members of the Managing Board pursuant to the provisions of the German Stock Corporation Act and determines their number. The Supervisory Board may appoint a member as chairperson of the Managing Board. Pursuant to section 84(3) of the German Stock Corporation Act (AktG), the Supervisory Board may revoke the appointment of a member of the Managing Board and the appointment of a chairperson of the Managing Board for good cause.

Amendments to the Articles of Incorporation are governed by sections 133 et seqq. and 179 et seqq. of the German Stock Corporation Act (AktG). In general, amendments require a resolution passed at the Annual General Meeting. A resolution passed at the Annual General Meeting requires a majority of at least three-quarters of the capital stock represented at the time the resolution is adopted. The Articles of Incorporation may determine a different, but only greater capital majority, for any amendment to the corporate purpose of the company.

Pursuant to Article 16(1) of the company's Articles of Incorporation, resolutions are passed at the Annual General Meeting by a simple majority of the votes cast, unless mandatory provisions of the German Stock Corporation Act stipulate otherwise. Where the German Stock Corporation Act also stipulates that a majority of the represented capital stock is required to pass a resolution, a simple majority of the represented capital fulfills this requirement, as permitted by law.

Authority of the Managing Board to issue or repurchase company shares

The Managing Board may issue new shares only on the basis of resolutions passed at the Annual General Meeting in respect of an increase in capital stock or in respect of authorized and conditional capital. Purchasing treasury shares is governed by section 71 et seqq. of the German Stock Corporation Act (AktG) and, in certain cases, is permitted by operation of law or as a result of authorization given at the Annual General Meeting.

Authorized capital

On the basis of a resolution passed by the Annual General Meeting of July 12, 2016 pursuant to Article 3, sentence 3 of the Articles of Incorporation, the Managing Board is authorized to increase the company's capital stock, with Supervisory Board approval, in the period until July 11, 2021, on a one-time basis or in partial contributions, up to a total of EUR 3,872,044.00 through the issuance of a total of 3,872,044 new bearer shares (no-par-value shares) by means of cash or non-cash contributions (Authorized Capital 2016).

In principle, the new shares must be offered to shareholders for subscription. The new shares may also be assumed by banks designated by the Managing Board with the obligation to offer them to the shareholders for subscription (indirect subscription right). However, the Managing Board was authorized, with Supervisory Board approval, to exclude shareholders' subscription rights

- in the event of a capital increase for cash consideration, if the issue amount of the new shares is not significantly less, within the meaning of section 203 (1) and (2) and section 186 (3) sentence 4 of the German Stock Corporation Act (AktG), than the stock exchange price of shares of the company of the same type at the time of establishment of the issue price, which is to be as close in time as possible to the time of issue of new shares. This authorization to exclude the subscription right applies only to the extent that shares to be issued in the capital increase do not in total represent a proportionate amount of the capital stock of more than EUR 774,408.00 and overall do not comprise more than 10 % of the capital stock at the time the authorization is exercised. The proportionate amount of capital stock of shares which are issued or sold during the period of this authorization based on other authorizations in direct or corresponding application of section 186 (3), sentence 4 of the German Stock Corporation Act (AktG), with exclusion of subscription rights, is to be credited toward this maximum amount for the exclusion of subscription rights;

- in the case of capital increases against contribution in kind for the acquisition of companies, parts of companies or participations in companies or other assets or for the purpose of business combinations;

- to the extent that it is necessary to give owners of warrant or convertible bonds, profit-sharing rights, or profit-sharing bonds (or combinations of these instruments) issued by the company or direct or indirect affiliates of the company a subscription right to new shares to the same extent as they would have upon exercising their option or conversion right or after fulfilling their conversion obligation;

- In order to exclude fractional amounts from subscription rights.

The Managing Board is authorized, with Supervisory Board approval, to determine the further details of the implementation of the capital increases based on the authorized capital.

Authorization to issue partial debentures with options or conversion rights or conversion obligations, profit-sharing rights, and profit-sharing bonds (or combinations of these instruments), as well as Conditional Capital I

At the Annual General Meeting on July 2, 2019, a resolution was passed authorizing the Managing Board, with Supervisory Board approval, to issue bearer warrant or convertible bonds, profit-sharing rights and/or profit-sharing bonds, or a combination of these instruments (collectively referred to as "bonds"), up to a total nominal value of EUR 150 million, on one or more occasions until July 1, 2024. In addition, the Managing Board was also authorized to grant owners of warrant bonds option rights and owners of convertible bonds, conversion rights for bearer shares of the company with a proportionate amount of capital stock totaling up to EUR 3,100,000.00, in accordance with the detailed terms and conditions of the warrant/convertible bonds.

The statutory subscription right is granted to the shareholders in the way that the bonds are underwritten by a bank or a syndicate of banks with the obligation to offer them for subscription to shareholders. If bonds are issued by one of Manz AG's subsidiaries pursuant to section 18 of the German Stock Corporation Act, the company must ensure that the statutory subscription right is granted accordingly to shareholders of Manz AG.

The Managing Board is however authorized, with Supervisory Board approval, to exclude fractional amounts from shareholders' subscription rights and also to exclude the shareholders' subscription rights to the extent necessary in order to give holders of already issued bonds with options or conversion rights and/or conversion obligations a subscription right to the extent to which they would be entitled after exercising their options or conversion rights or upon fulfilling their conversion obligation.

Furthermore, the Managing Board is authorized, with Supervisory Board approval, to completely exclude shareholders' subscription rights to bonds issued with an option and/or conversion right or conversion obligation, provided the Managing Board, after dutiful examination, arrives at the view that the issue price of the bonds is not significantly below their hypothetical market value as calculated according to accepted and, in particular, actuarial methods. This authorization to exclude the subscription right applies to bonds issued with an option and/or conversion right or a conversion obligation, carrying an option and/or conversion right or a conversion obligation for shares with a total proportionate amount of the capital stock, which may not exceed 10 % of the capital stock, either at the time the authorization becomes effective or – in the event that this amount is lower – at the time this authorization is exercised. The following are offset against the aforementioned ten percent limit:

- new shares that are issued from authorized capital with the subscription right being excluded pursuant to section 186 (3) sentence 4 of the Stock Corporation Act (AktG) during the term of this authorization up to the issue, subject to the exclusion of subscription rights pursuant to section 186 (3) sentence 4 of the Stock Corporation Act (AktG), of the bonds carrying an option and/or conversion right or conversion obligation, and

- such shares as are acquired on the basis of an authorization granted at the Annual General Meeting and are disposed of, with exclusion of the subscription right, pursuant to section 71(1) no. 8 sentence 5 German Stock Corporation Act (AktG), in conjunction with section 186(3) sentence 4, of the German Stock Corporation Act (AktG) during the term of this authorization up to the issue, subject to the exclusion of subscription rights pursuant to section 186(3) sentence 4 of the German Stock Corporation Act (AktG), of the bonds carrying an option and/or conversion right or conversion obligation.

Where profit-sharing rights or profit-sharing bonds without an option right or conversion right/obligation are issued, the Managing Board is authorized, with Supervisory Board approval, to completely exclude shareholders' subscription rights if these profit-sharing rights or profit-sharing bonds have the characteristics of a debenture; i.e., do not give rise to any membership rights in the company, do not grant a share in the liquidation proceeds, and the interest payable is not calculated on the basis of the net income for the year, net retained profit, or the dividend. Moreover, in such a case, the interest payment and the issue price of the profit-sharing rights or profit-sharing bonds must reflect current market conditions at the time of issue.

Pursuant to Article 3(4) of the Articles of Incorporation, the capital stock of the company has been conditionally increased by up to EUR 3,100,000.00 through the issue of up to 3,100,000 no-par value bearer shares (Conditional Capital I). The contingent capital increase will only be carried out to the extent that the holders of option or conversion rights or those obliged to convert from warrant or convertible bonds, profit participation rights or participating bonds issued by the Company or a Group company within the meaning of section 18 AktG on the basis of issued or guaranteed at the Annual General Meeting on July 2, 2019 under agenda item 5, exercise their option or conversion rights or, if they are required to convert, fulfill their obligation to convert, unless a cash settlement is granted or treasury shares or shares of another listed company. The new shares are issued at the option or conversion price to be determined in each case in accordance with the authorization resolution described above. The new shares are to participate in profit from the beginning of the financial year in which they are created on the basis of the exercise of options or conversion rights or of the fulfillment of conversion obligations. The Managing Board is authorized, with Supervisory Board approval, to establish the further details of the execution of the conditional capital increase.

Authorization to issue share subscription rights within the scope of the Manz Performance Share Plan 2019 as well as Conditional Capital III

At the Annual General Meeting held on July 2, 2019, a resolution was passed authorizing the Managing Board, with Supervisory Board approval, to issue a total of up to 95,000 subscription rights for subscription of a total of up to 190,000 shares in the company to executives of affiliated companies of the company, as well as Manz's own managers below the executive level and managers of affiliated companies, both domestic and foreign, below the executive level on one or more occasions through June 30, 2024. The Supervisory Board was authorized to grant one or several times a total of up to 85,000 subscription rights for the purchase of up to 170,000 shares in the company to members of the company's Managing Board until June 30, 2024.

Subscription rights are to be granted, structured and exercised in accordance with the provisions in the resolution of the Annual General Meeting on July 2, 2019.

The authorization of July 7, 2015 was revoked by resolution passed at the Annual General Meeting of July 2, 2019, insofar as no subscription rights had yet been issued on the basis of the authorization.

Pursuant to Article 3(6) of the Articles of Incorporation, the company's capital stock has been conditionally increased by up to EUR 360,000.00 through the issue of up to 360,000 no-par value bearer shares (Conditional Capital III). The conditional capital increase serves to secure the rights of the holders of subscription rights granted on the basis of the authorization granted by the Annual General Meeting on July 2, 2019. The shares will be issued at the issue amount established in the authorization adopted at the Annual General Meeting on Tuesday, July 2, 2019. The contingent capital increase will be carried out only to the extent subscription rights are exercised and the company does not issue either treasury shares or a cash settlement for the purpose of fulfillment of the subscription rights. The new bearer shares will be equivalent to previously issued shares of the same class with respect to their dividend entitlement. The Managing Board and, to the extent members of the Managing Board are affected, the Supervisory Board are authorized to establish the further details of the conditional capital increase and its implementation.

Authorization to issue share subscription rights within the scope of the 2015 Manz Performance Share Plan as well as Conditional Capital II

At the Annual General Meeting held on July 7, 2015, a resolution was passed authorizing the Managing Board, with Supervisory Board approval, to issue a total of up to 59,000 subscription rights ("Performance Shares") for a total of up to 118,000 shares in the company to executives of affiliated companies as well as Manz's own managers below the executive level and managers of affiliated companies, both domestic and foreign, below the executive level on one or more occasions through June 30, 2020. The Supervisory Board was given authorization to issue a total of up to 56,000 subscription rights ("Performance Shares") for a total of up to 112,000 shares in the company to members of Manz's Managing Board, on one or more occasions, through June 30, 2020.

Subscription rights are to be granted, structured and exercised in accordance with the provisions in the resolution of the Annual General Meeting on July 7, 2015.

Pursuant to Article 3(5) of the Articles of Incorporation, the company's capital stock has been conditionally increased by up to EUR 230,000.00 through the issue of up to 230,000 no-par value bearer shares (Conditional Capital II). The conditional capital increase serves to secure the rights of the holders of subscription rights ("Performance Shares") granted on the basis of the authorization granted by the Annual General Meeting on July 7, 2015. The shares will be issued at the issue amount established in the authorization adopted at the annual general meeting on Tuesday, July 7, 2015. The contingent capital increase will be carried out only to the extent subscription rights are exercised and the company does not issue either treasury shares or a cash settlement for the purpose of fulfillment of the subscription rights. The new shares will be equivalent to already issued shares of the same class with respect to their dividend entitlement. The Managing Board and, to the extent members of the Managing Board are affected, the Supervisory Board are authorized to establish the further details of the conditional capital increase and its implementation.

In addition, the Managing Board and - when issuing shares to members of the Managing Board - the Supervisory Board were authorized on June 30, 2020 to use acquired Manz AG treasury shares to service subscription rights that have been or will be issued to members of the Managing Board and executives as part of the Manz Performance Share Plan 2015 approved by the Annual General Meeting on July 7, 2015, under Item 6 on the agenda, or as part of the Manz Performance Share Plan 2019 approved by the Annual General Meeting on July 2, 2019, under Item 6 on the agenda. This authorization to reissue clearly defines the group of people to whom the Manz shares can be transferred.

The Manz Performance Share Plan 2015 for Managing Board members and Company executives as well as the Company or its subsidiaries was explained in a report from the Managing Board at the Annual General Meeting on July 7, 2015. Likewise, the Manz Performance Share Plan 2019 for members of the Managing Board and Company executives and its group companies, which was approved during the Annual General Meeting 2019, was explained in a report by the Managing Board to the Annual General Meeting on July 2, 2019.

The option to grant Manz AG's own shares to those entitled to subscribe in fulfillment of their subscription rights is a suitable means of counteracting the dilution of capital holdings and voting rights that would occur if the subscription rights were fulfilled with newly created shares based on the contingent capital. To the extent that the Company makes use of this option, there is no need to make use of contingent capital II according to Section 3 (5) of the Articles of Incorporation or contingent capital III according to Section 3 (6) of the Articles of Incorporation.

Whether and to what extent the authorization to issue treasury shares is used to fulfill the subscription rights or whether new shares are issued instead from the contingent capital, is to be decided by the Managing Board and - if a member of the Managing Board exercises the subscription right - by the Supervisory Board, which is guided by the interests of the Company and its shareholders.

Authorization to purchase and dispose of treasury shares

The annual general meeting held on June 30, 2020, authorized the Managing Board of the company to acquire treasury shares until July 1, 2024, pursuant to section 71 (1) number 8 of the German Stock Corporation Act (AktG) with a proportional value of up to 10 % of the capital stock at the time this authorization becomes effective or of the existing capital stock of the company at the time of exercise of the authorization, if such amount is lower, whereby at no point in time more than 10 % of the capital stock of the company may be represented by the shares acquired on the basis of this authorization together with other shares of the company, which the company has already acquired and still possesses or which are attributable to it pursuant to sections 71d and 71e AktG. The provisions in section 71(2) sentences 2 and 3 AktG must be observed.

The acquisition may take place only through the securities exchange or by means of a public purchase order and must satisfy the principle of equal treatment of shareholders (section 53a AktG).

The Managing Board was authorized to sell the treasury shares acquired on the basis of the above authorization also in manners other than through the stock exchange or through an offer to other shareholders, under the condition that the sale is for cash and is at a price that is not significantly below the stock-exchange price, at the time of the sale, of company shares with the same features. This authorization of use is restricted to shares with a proportionate amount of capital stock that in total does not exceed 10 % of the capital stock of the Company, neither at the time of coming into effect of this authorization, nor – if such amount is lower – at the time of exercise of the above authorization. The maximum limit of 10 % of the capital stock is reduced by the proportionate amount of the capital stock that is attributable to those shares that are out-given or sold during the term of this authorization with exclusion of the subscription rights pursuant to or in accordance with section 186(3) sentence 4 AktG. The maximum limit of 10 % of the capital stock is further reduced by the proportionate amount of the capital stock represented by those shares that were to be issued in order to service bonds with option or conversion rights and/or option or conversion obligations to the extent such bonds are issued during the term of this authorization with exclusion of subscription rights in analogous application of section 186(3) sentence 4 AktG.

The Managing Board was further authorized to transfer treasury shares acquired on the basis of the above authorization to third parties insofar as this is for the purpose of acquiring companies, parts of companies or interests in companies or other assets, or to carry out business combinations.

The Managing Board and – to the extent there is an obligation with respect to members of the Managing Board – the Supervisory Board were further authorized to use the treasury shares acquired on the basis of the above authorization for the purpose of fulfilling the subscription rights that were or are issued in the framework of the Manz Performance Share Plan 2015 resolved at the Annual General Meeting of July 7, 2015, under item 6 of the agenda or in the framework of the Performance Share Plan 2019 adopted at the Annual General Meeting of July 2, 2019, under item 6 of the agenda.

The Managing Board was also authorized to use the treasury shares acquired on the basis of the above authorization for the purpose of fulfillment of the subscription and conversion rights that result from exercising option or conversion rights or fulfilling option or conversion obligations that have been granted or imposed within the framework of issuing convertible or warrant bonds, profit-sharing rights, or profit-sharing bonds (or combinations of these instruments) of the company or its subsidiaries.

The Managing Board was further authorized to transfer own shares acquired on the basis of the above authorization to employees of the Company or employees or members of governing bodies of subordinate affiliates of the Company within the meaning of sections 15 et seqq. AktG.

ignificant company agreements that are conditional on a change of control as a result of a takeover bid

Patent and Know-How License Agreement with the ZSW

There is a patent and expertise license agreement from the year 2017 between Manz AG and the Center for Solar Energy and Hydrogen Research Baden-Württemberg (Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg, ZSW), which is a foundation under German civil law and a research institution of the state of Baden-Württemberg, under which the ZSW grants Manz AG certain licenses to its patents and expertise with regard to CIS and/or CIGS technology for the manufacture of thin-film solar cells. The new patent and expertise license agreement can be terminated by ZSW for good cause if a competitor of ZSW acquires or exceeds 30 % of voting rights in Manz AG in terms of section 33 et seqq. WpHG.

Patent and know-how license agreement with NICE Solar Energy GmbH

In addition, Manz AG and NICE Solar Energy GmbH (formerly Manz CIGS Technology GmbH), a subsidiary of NICE PV Research Ltd., in which China Energy Investment Corporation Limited (formerly Shenhua Group), Shanghai Electric Group Co. Ltd , and Manz AG, a patent and expertise licensing agreement from 2017, according to which NICE Solar Energy GmbH (formerly Manz CIGS Technology GmbH) of Manz AG has granted certain patents and expertise regarding the CIS or CIGS technology for the production of thin-film solar cells. The patent and expertise licensing agreement can be terminated by NICE Solar Energy GmbH (formerly Manz CIGS Technology GmbH) for good cause if a third party directly or indirectly acquires at least 30.0 % of the shares in Manz AG where a direct or indirect purchase of shares by Shanghai

Electric Group Co. Ltd., China Energy Investment Corporation Limited (formerly Shenhua Group) exceeding 30.0 % or such acquisition by Dieter Manz does not give rise to the right of termination. NICE Solar Energy GmbH filed for protective shield proceedings at the Heilbronn District Court in accordance with Section 270b of the German Insolvency Code in 2021. As a result, the company is now in the process of restructuring, but business operations will continue unchanged. The licenses granted for the production of thin-film solar cells of the CIS and CIGS technology remain valid. At the current time, Manz AG does not expect any significant effects on the assets, financial and earnings situation from the protective shield proceedings of NICE Solar Energy GmbH.

Talus Manufacturing Ltd.

An agreement existed between the subsidiary Manz Taiwan Ltd. and Lam Research Corporation, a leading US manufacturer of equipment for the semiconductor industry regarding Talus Manufacturing Ltd. in Chungli, Taiwan, in which Manz Taiwan Ltd. held an 80.5 % stake and the partner held a 19.5 % stake. The partner has informed Manz AG that it will acquire the shares held by Manz Taiwan Ltd. in Talus Manufacturing Ltd. By exercising the contractually agreed purchase option, the partner will acquires this 80.5 %. Regulatory approval for the sale of the shares was granted at the end of January 2021.

Apart from the agreements mentioned above and in the section below, there are no significant company agreements that are conditional on a change of control as a result of a takeover bid.

Compensation agreements of the company that have been made in the event of a takeover bid with members of the Managing Board or with employees

In the event of a change of control, the employment contract of Managing Board member Martin Drasch stipulates that the Managing Board member is entitled to terminate the employment contract with a notice period of three months to the end of a calendar month and to resign from his office as member of the Managing Board with the same deadline. These rights may be exercised only within six months after the change of control has occurred.

A change of control is to be deemed to have taken place when the company receives notification from a notifying party in accordance with section 33 (1), sentence 1 WpHG that the notifying party, with inclusion of the voting rights attributable to him pursuant to section 34 WpHG, has reached or exceeded a 25 % or higher share of voting rights in the company.

In the event of a termination of the employment contract pursuant to the above provisions, the member of the Managing Board shall receive a severance payment. This severance payment shall consist of the total amount of the fixed salary owed for the remaining term of the employment contract and the total amount of the cash bonus owed for the remaining term of the employment contract, whereby for the calculation of the amount, the average of the EBT return in the last financial year before the termination and the EBT return that is expected to be realized in the current financial year according to the forecast of the company are to be taken as the basis. The severance payment is limited to the amount that corresponds to 150 % of the severance cap. The value of two years' annual compensation is deemed to be the severance cap. If the remaining employment term on the date the resignation becomes effective amounts to more than two years, the severance payment is reduced, insofar as it is being granted for the exceeding period, by 75 % for the purposes of offsetting the severance payment with a lump sum equal to the member's expected income from other sources after ending employment. In addition, the amounts used in the calculation of the severance payment must also be discounted at 3 % p.a. each to the date on which the severance payment is due.

In other respects, the company has not entered into any agreements with members of the Managing Board or with employees that make provision for compensation payments in the event of a takeover bid.

2.8. Compensation Report

The following compensation report presents the basic principles of the compensation systems for the Managing and Supervisory Boards of Manz AG, as well as the salaries earned by the members of the Managing and Supervisory Boards in the financial year 2020.

System of compensation for the Managing Board

The aim of the compensation system is to compensate the members of the Managing Board commensurately according to their area of activity and responsibility, taking into account not only the personal performance of each respective Managing Board member, but also the company's overall situation and business success. The compensation structure is geared toward sustainable corporate growth.
The compensation paid to members of the Managing Board consists of fixed and variable components. When assessing the amount of the remuneration elements, a distinction is made between the Chairman of the Managing Board and the other members of the Managing Board.

Fixed elements of compensation

The fixed components of Managing Board compensation consist of a fixed monthly salary, benefits in kind, and contributions to a company retirement scheme.

The fixed salary is paid in twelve equal monthly installments. These fixed payments function as a base salary to cover Managing Board members' and their families' ongoing cost of living expenses irrespective of the company's performance.

An appropriate company car, which can also be used for private purposes, is provided to Managing Board members as a benefit in kind. In addition, the company has taken out accident insurance policies with appropriate benefits for each of the Managing Board members. These policies also cover non-work-related accidents. Furthermore, there is a directors and officers

pecuniary damage liability insurance policy (so-called D & O insurance) for the members of the Managing Board at the company's expense.
The company has undertaken to pay pension contributions to members of the Managing Board, Martin Drasch, Manfred Hochleitner and Jürgen Knie, by paying annual contributions to a support fund.

Variable elements of compensation

General

The variable compensation comprises an annual component linked to the company's success in the form of an annual cash bonus (short-term variable compensation) on the one hand, and on the other hand, a share-based component with a multi-year assessment in the form of annual stock options based on the 2019 Manz Performance Share Plan (long-term variable compensation).

The variable components complement the fixed elements of compensation, serving as a specific incentive to achieve sustained corporate growth while contributing to the Managing Board members' accumulation of personal assets and financial independence. In the interest of aligning variable compensation with sustainable corporate growth, the value (fair value) of the subscription rights granted on the basis of the Manz Performance Share Plan 2019, which is calculated using recognized financial mathematical methods, outweighs the annual cash bonus.

Annual cash bonus

The aim of the annual cash bonus is to allow the members of the Managing Board to participate in the company's success in a given financial year as a result of their own personal management performance.

The cash bonus is granted annually, depending on the EBIT margin of the respective financial year. The EBIT margin is calculated as the ratio of earnings before interest and taxes (EBIT) to total revenues in accordance with the consolidated financial statements in accordance with IFRS. Moreover, the cash bonus is calculated based on the fixed salary of the particular Managing Board member for the given financial year (fixed annual salary).

The granting of cash bonuses requires an EBIT margin of at least 0.1 %, depending on the contractual agreement with the board member. The Managing Board member receives a cash bonus of 1 % of the annual fixed salary with an EBIT margin of 0.1 %. Accordingly, the percentage applicable for calculating the cash bonus increases by one percentage point for each full 0.1 percentage point by which the achieved EBIT margin exceeds 0.1 %. Therefore, the Managing Board member receives, for example, a cash bonus of 50 % of the annual fixed salary with an EBIT margin of 5.0 %, and, with an EBIT margin of 10 %, a cash bonus of 100 % of the annual fixed salary. The upper limit is set at an EBIT margin of 16.0 %, at which the cash bonus is 160 % of the annual fixed salary.

The Supervisory Board has set an EBIT margin of 6 % as the medium target of short-term variable compensation for the purpose of determining the ratio between the individual compensation elements. At this middle value, the cash bonus is 60 % of the fixed annual salary.

Manz Performance Share Plan 2019

The rights to Manz shares granted and to be granted on the basis of the 2019 Manz Performance Share Plan in the years 2019 to 2022 are intended to stimulate the Managing Board members to sustainably increase their internal and external company value and, therefore, their interests with those of the shareholders, but also with the other stakeholders.

The Supervisory Board may in principle determine the number of subscription rights to be granted to the individual members of the Managing Board at its own discretion - in line with the legal requirements for the appropriateness of the compensation. There is no contractual claim for the granting of performance shares.

However, the Supervisory Board has specified as a guideline that the annual long-term variable compensation in the form of performance shares (allocation value) should, as a rule, amount to 50 % of the annual total cash compensation of the respective Managing Board member. In this case, total cash compensation consists of the member's annual fixed salary, as well as the middle target value of the annual cash bonus equal to 60 % of the annual fixed salary. The performance shares to be granted shall be valued upon issuance through the price of the Manz share in Xetra trading on the Frankfurt Stock Exchange on the basis of an appropriate period of time at the beginning of the particular issuing period.

Further details of the 2019 Manz Performance Share Plan and the subscription rights to shares of the Company issued on the basis thereof are set out in the "Corporate Governance Statement and Corporate Governance Report of Manz AG for the Financial Year 2019" in section VI, which can be downloaded from the Manz AG website at www.manz.com, in the Investor Relations section under the heading "Corporate Governance".

Severance cap in the event of early termination of Managing Board duties

The service contracts of the Managing Board members stipulate that, in the event of early termination of the term of office and service which is not based on cause, severance payments to the Managing Board member, including fringe benefits do not exceed two years' compensation (severance payment cap) and not more than the remainder of the employment relationship. The calculation of the severance payment cap will be based on the total compensation of the past financial year and, if applicable, the expected total compensation for the financial year in progress at the time of early termination.

Provisions in the event of a change of control

In the event of a change of control, the employment contract of CEO Martin Drasch stipulates that the member of the Managing Board is entitled to terminate the employment contract with three months' notice to the end of a calendar month and to resign from his office as member of the Managing Board with the same deadline. In principle, a change of control occurs when the company receives a notice from a party that the party, including the voting rights attributable to it, has reached or exceeded 25 % or a higher proportion of the voting rights in the company. In the event of a termination of the employment contract pursuant to the above provisions, the member of the Managing Board shall receive a severance payment.

Further details on the change of control provisions in the service contracts of the named members of the Managing Board are provided in this consolidated situation report in the "Disclosures pursuant to section 315a paragraph (1) HGB and explanatory report pursuant to section 176 (1) sentence 1 of the Stock Corporation Act (AktG) on the disclosures pursuant to section 289a (1) and section 315a (1) HGB" in the subsection" Compensation Agreements of the Company, which have been concluded in the event of a takeover bid with members of the Management Board or with employees ".

Managing Board compensation in the Financial Year 2020

The members of the Managing Board received compensation totaling TEUR 2,250 for their work in the 2020 financial year (previous year: TEUR 996).

The following table provides an overview of the compensation paid to individual members of the Managing Board according to DRS 17 for performing their duties in the financial year 2020:

	Non performance-related components		Performance-based components (short-term)		Components with long-term incentive	
(in TEUR) (Previous year in parentheses)	Fixed salary	Other benefits[1)]	Discretionary bonus	Cash bonus	Subscription rights to shares (fair value)	Total
Martin Drasch, Chairman of the Managing Board	310 (307)	23 (37)	0 (0)	90 (0)	436 (110)	859 (454)
Manfred Hochleitner, Chief Financial Officer	241 (240)	21 (24)	20 (0)	72 (0)	349 (88)	703 (352)
Jürgen Knie, COO (since 7-1-2019)	237 (124)	25 (10)	0 (0)	72 (0)	349 (56)	688 (190)
Total	**793 (671)**	**69 (71)**	**20 (0)**	**234 (0)**	**1,134 (254)**	**2,250 (996)**

1) In particular, monetary advantages of benefits in kind and contributions to the company pension scheme (support fund).

The subscription rights to shares of Manz AG on the basis of the Manz Performance Share Plan 2019 were measured at fair value using recognized mathematical finance methods.

Compensation of the Executive Board in accordance with the German Corporate Governance Code

The compensation of the Managing Board for the financial year 2020 is also disclosed on the basis of the presentation recommended by the German Corporate Governance Code in the framework of exemplary tables broken down by the benefits granted and the allocation.

The following table shows the benefits, including fringe benefits, granted to the individual members of the Managing Board for the reporting year and the previous year in accordance with the recommendations of the German Corporate Governance Code. The target values (payment at 100 % target achievement) as well as the minimum and maximum compensation achievable for the reporting year are specified for the variable compensation.

Benefits granted	**Martin Drasch**					**Manfred Hochleitner**					**Jürgen Knie**				
(in TEUR)	Chairman of the Managing Board					Chief Financial Officer					Chief Operations Officer				
	2019	**2020**	**2020**	**2020**	**2020**	**2019**	**2020**	**2020**	**2020**	**2020**	**2019**	**2020**	**2020**	**2020**	**2020**
	Actual value	Actual value	Target value	(Min)	(Max)	Actual value	Actual value	Target value	(Min)	(Max)	Actual Value	Actual Value	Target value	(Min)	(Max)
Fixed compensation	307	310	313	313	313	240	241	245	245	245	124	242	245	245	245
Fringe benefits	19	11	11	11	11	12	9	9	9	9	4	13	13	13	13
Total	**326**	**321**	**324**	**324**	**324**	**252**	**250**	**254**	**254**	**254**	**128**	**255**	**258**	**258**	**258**
Single-year variable compensation	0	90	180	0	480	0	92	144	0	384	0	72	144	0	384
Multi-year variable compensation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Manz Performance Share Plan 2019 – Tranche 2020 (Term to 2022)	110	436	240	0	480[2)]	88	349	192	0	384[2)]	56	349	192	0	384[2)]
Total	**436**	**847**	**744**	**324**	**1,284**	**340**	**691**	**590**	**254**	**1,022**	**184**	**676**	**594**	**258**	**1,026**
Pension expense [1)]	18	12	12	12	12	12	12	12	12	12	6	12	12	12	12
Total compensation	**454**	**859**	**756**	**336**	**1,296**	**352**	**703**	**602**	**266**	**1,034**	**190**	**688**	**606**	**270**	**1,038**

1) Contribution-based payments to the support fund for Martin Drasch, Manfred Hochleitner and Jürgen Knie
2) The value of the performance shares is limited to 300 % of the grant value upon exercise.

The following table shows the inflow in or for the reporting year and the previous year of compensation granted to the individual members of the Executive Board in accordance with the recommendations of the German Corporate Governance Code.

Allocation (in TEUR)	Martin Drasch Chairman of the Managing Board 2020	2019	Manfred Hochleitner Chief Financial Officer 2020	2019	Jürgen Knie Chief Operations Officer 2020	2019
Fixed compensation	310	307	241	240	242	124
Fringe benefits	11	19	9	12	13	4
Total	**321**	**326**	**250**	**252**	**255**	**128**
Single-year variable compensation	0	0	20	0	0	0
Multi-year variable compensation	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	**321**	**326**	**270**	**252**	**255**	**128**
Pension expense [1)]	12	18	12	12	12	6
Total compensation	**333**	**344**	**282**	**264**	**267**	**134**

1) Contribution-based payments to the support fund for Martin Drasch, Manfred Hochleitner and Jürgen Knie

The following table shows the share of total recognized share-based payment expense attributable to each individual Executive Board member in the reporting period (IFRS 2.51a):

	Martin Drasch Chairman of the Managing Board	**Manfred Hochleitner** Chief Financial Officer	**Jürgen Knie** Chief Operations Officer	**Total**
Total expense for share-based compensation				689
Share of total expense	160	86	73	319

Compensation of the Supervisory Board

The Supervisory Board compensation regulated in the Articles of Incorporation was amended by resolution of the Annual General Meeting on July 3, 2018.

According to the regulation in force until July 3, 2018, each member of the Supervisory Board receives fixed compensation payable after the end of the financial year amounting to EUR 12,000.00, in addition to the reimbursement of expenses. The compensation for the chairperson of the Supervisory Board is EUR 24,000.00, while, for the deputy chairperson, it is EUR 18,000.00. Supervisory Board members who are only members during a portion of a financial year receive proportionately less compensation.

The applicable rules since July 4, 2018 stipulate that each member of the Supervisory Board receives fixed compensation of EUR 16,000.00, payable after the end of the financial year. The members of the Supervisory Board receive an additional fixed compensation for each financial year for their work on Supervisory Board committees, which amounts to EUR 8,000.00 for each member of a committee. Committee activities are to be considered for a maximum of two committees. In addition, the members of the Supervisory Board receive an attendance fee of EUR 1,500.00 for each attendance at a meeting of the Supervisory Board and its committees. Attendance fees are to be granted only once when several sessions take place in one day. The Chairman of the Supervisory Board receives three times the aforementioned compensation. His deputy receives double the fixed compensation mentioned in the first sentence.

The company also reimburses Supervisory Board members for any VAT to be paid on their compensation. Moreover, the company can insure Supervisory Board members at its own expense against civil and criminal recourse in connection with the execution of their official duties; the company can also take out corresponding liability insurance against legal expenses and property loss (D&O insurance policy).

The following table provides an overview of the compensation paid to individual members of the Supervisory Board for performing their duties in the financial year 2020 (previous year's values in parentheses):

(in TEUR) (Previous year's figures in brackets)	**Salaries**
Professor Dr. Heiko Aurenz, Chairman	101 (130.5)
Dieter Manz, Deputy Chairman	48 (59.5)
Professor Dr. Ing. Michael Powalla	20 (23.5)
Dr. Zhiming Xu	20 (23.5)
Total	**189 (237)**

Furthermore, the company also covered the cost of D&O insurance policy for each member of the Supervisory Board.

As in the previous years, no loans or advances were granted to members of the Supervisory Board and no contingencies were entered into for their benefit.

3. Risks and Opportunities

3.1 Risk Management and Internal Control System

The goal of Manz AG's risk management system is to identify possible risks early on and to initiate appropriate measures to avert any threat of damage. The risk management system records both risks and opportunities. The application of a risk management system integrated into corporate management is aimed at identifying and assessing potential risks throughout the group in good time and countering them with appropriate measures. Within the scope of business activities risks cannot be avoided in principle, but are minimized or transferred as far as possible.

The company's risk management activities are managed centrally by the risk management officer, are regularly evaluated with regard to their effectiveness and appropriateness and they are the complete responsibility of the CFO. Responsibility for risk monitoring, on the other hand, is decentralized and, depending on the risk category and scope, is the responsibility of both the divisional managers and managing directors, as well as Manz AG's Managing Board members. Regular written and oral inquiries are used to detect potential risks in all business segments and, at the same time, they also provide the opportunity to take prompt countermeasures to prevent any negative developments. The Managing Board and the Supervisory Board are presented with an overall report at regular intervals for a comprehensive assessment of the risk situation.

Risks are analyzed and assessed on the basis of a risk management system that is essentially unchanged from the previous year, consisting of a defined group of risk owners, specified risk categories and a risk classification that reflects the risk potential and the urgency of the need for action. Particular attention is paid to risks whose probability of occurrence is high and whose potential damage in the event of occurrence is high. The identification and handling of risks is anchored in the corporate principles and defined as the task of all Manz AG employees. Integrating the company's entire workforce enables risks to be identified quickly and communicated to the appropriate risk officer, who must then take appropriate steps in accordance with the principles of action defined across the Group.

The risks are attributed to the following categories:

- Operating risks
- Strategic risks
- Market risks
- Environmental risks

In addition to this risk management system, as part of the planning process based on continuous technology and market observation, further activities are taking place both for risk identification and mitigation and for identifying opportunities.

The effectiveness and appropriateness of our early risk warning system have been assessed by the auditors. He noted that the Managing Board has taken the measures required under section 91 (2) of the Stock Corporation Act (AktG), in particular, with regard to the establishment of a monitoring system, in an appropriate manner, and that the monitoring system is capable of identifying developments that endanger the continued existence of the company at an early stage.

Risk Management System for the Accounting Process
(section 289(4) and section 315(4) HGB)

The goal of Manz AG's risk management system as it pertains to the accounting process is to identify and assess risks that might conflict with the compliance of the consolidated financial statements with the rules. Risk management encompasses the entirety of the organizational regulations and measures for detecting risks and for dealing with the risks associated with entrepreneurial activity. With regard to the accounting process, Manz has implemented the following structures and processes:

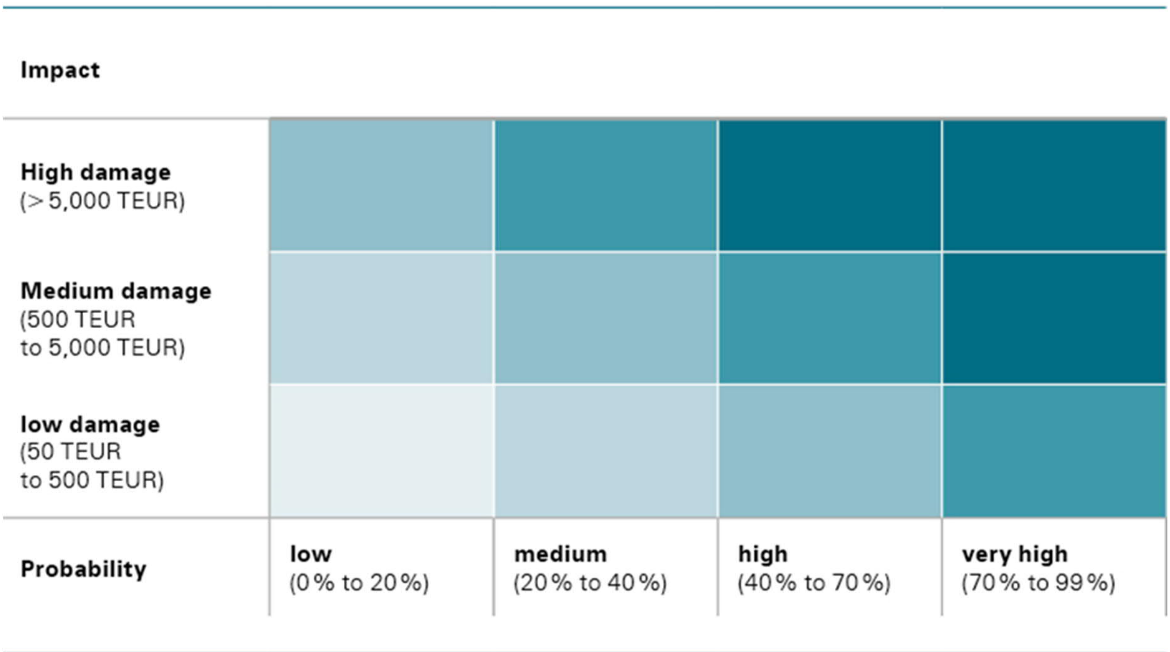
The CFO has total responsibility for the company's internal monitoring and risk management system as it pertains to the accounting process. All of the companies included in the consolidated financial statements are integrated via a defined management and reporting organizational structure. The separate financial statements of Manz AG and its subsidiaries are prepared in accordance with the corresponding national legislation and reconciled in financial statements in accordance with IFRS.

The purpose of the Group' s accounting policies and group accounting, which are regularly adapted to current external and internal developments, is to ensure uniform accounting and valuation on the basis of the regulations applicable to the parent company. Furthermore, companies in the Group are prescribed report packages that they are required to prepare. The SAP SEM-BCS tool is used for the monthly consolidation process. Automatic plausibility checks are already carried out during data collection in order to test the consistency of the data.

Consolidation measures and monitoring of adherence to chronological and process-related requirements are carried out by members of the consolidation department at Group level. Additional monitoring activities at Group level include analyzing, and if necessary, adjusting the separate financial statements submitted by the Group's subsidiaries, in accordance with the reports submitted by the auditors. Key elements of the company's strategy for monitoring risks in the accounting process also include the functional separation between entry, verification, and approval, as well as a clear allocation of responsibilities in the departments in question. The use of SAP as an IT financial system is another important means of systematically preventing errors. Furthermore, the company should use a dual control system at all process levels. If there are special issues of a technical or complex nature, the company also involves external experts. Further monitoring activities include analyzing and conducting plausibility checks on transactions, as well as continuously monitoring project calculations.

The illustrated structures, processes and features of the internal control and risk management system ensure that Manz AG's financial reporting is consistent and in accordance with legal requirements, generally accepted accounting principles, international accounting standards and consolidated internal guidelines. The Managing Board considers the established systems, which are reviewed annually for their ability to optimize and develop, to be appropriate. Any potential improvements identified are implemented by the Managing Board in conjunction with Manz AG's employees.

All risks are classified according to the matrix below, which quantifies both probability of occurrence (likelihood) and potential effect (impact).



3.2 Risk Report

The following overview shows the assessment of risks arising in the 2021 financial year (forecast period) that could lead to deviations in the development of sales and/or earnings.

Risks		**Impact**	**Probability of occurrence**	**Change to previous year**
Operating risks	Project risks	high	medium	↗
	Personnel risks	medium	low	↘
	Liquidity and financing risks	high	low	→
	Currency risks	medium	high	↗
	Risks from IT	medium	low	—
Strategic risks	Risks from the strategic focus on dynamic growth markets	high	medium	→
	Dependence on major customersand industries	high	medium	↗
Market risks	Risks in connection with international business activities	high	medium	↗
	Risks due to increasing competition	low	medium	↘
	Risks arising from rapid technological change and the market launch of new products	high	medium	→
Environmental risks	Risks related to pandemics	medium	medium	→
	Risks from the environment and nature	medium	low	—

3.2.1 Operating Risks

Project Risks

Project risks mainly relate to non-standardized major orders. Here, risks arise from the possible failure to meet planned costs and the schedule, the non-fulfillment of acceptance criteria, order cancellations and the associated non-acceptance of orders and resulting contractual risks, as well as the possible loss of individual important suppliers. By expanding the proportion of standardized machine components in the product portfolio, which can be individualized into modules or entire production machines according to customer requirements, Manz AG intends to reduce the aforementioned project risks overall. In order to keep projects fundamentally under control, costs, time, and quality are coordinated as part of a gate process between the business segment and Operations. Necessary design changes for non-standardized machines, which cannot be foreseen at the beginning of an order, could lead to higher costs than expected and thus to an erosion of project margins. To avoid additional work and associated extra costs for the completion of projects, project and product specifications are to be clearly and precisely defined already in the contract offers through cross-departmental cooperation. Specific project risks exist primarily with regard to the contracts concluded with Shanghai Electric Group and China Energy Investment Corporation Limited for the supply of a CIGS production line and a CIGS research line with a total order volume of EUR 263 million. The know-how required for the commissioning of the equipment is currently not available in its entirety in the Manz Group and must therefore be built up, for example, through new hires or additional purchases. The project execution risk is reduced through the use of external project management experts who are experienced in such large-scale projects, and in some cases also temporarily engaged, as well as through a monthly steering committee, which also includes all members of the Managing Board. The major CIGS projects are currently suspended due to customer-related construction work on the corresponding production halls. To date, the customers have fulfilled all contractual obligations, in particular payment obligations. Manz expects a temporary interruption and a continuation of the orders in the first half of 2021.

Personnel risks

For the corporate success of a high-tech equipment manufacturer, qualified and motivated managers and employees are of decisive importance. The departure of executives or key employees could have a negative impact on the company's business performance, thereby affecting its net assets, financial position and operational results. At the same time, there is also a risk that the company will not be able to hire a sufficient number of new, suitable executives or additional employees. Manz creates a positive working environment with measures such as flexible working time models or employees' financial participation in the success of the company, and can therefore retain employees and expertise in the company in the long term. As a listed company, Manz AG enjoys greater attention from potential employees than do unlisted companies. This allows Manz AG to better present its offerings to employees, such as flat hierarchies, exciting activities, flexible working hours, and well-equipped workplaces. However, it also brings extra attention in economically challenging times, which can temporarily make it harder to recruit. Another positive aspect of stock market listing is the ability to bind employees more closely to the company through the issue of shares and a corresponding profit share.

Liquidity and financing risks

The parent company Manz AG is currently financed through bank balances and a small cash credit line. The subsidiaries in Slovakia, Hungary, Italy, China, and Taiwan are financed primarily through short-term overdrafts and, to a small extent, long-term loans. As of the reporting date December 31, 2020, the Manz Group had cash and cash equivalents of 69.7 million euros and unused cash and guarantee credit lines of 16.9 million euros (previous year: 18.0 million euros). In general, in order to reduce liquidity and financing risks, the companies of the Manz Group are encouraged to process orders "cash positively" wherever possible. In this context, incoming payments should exceed outgoing payments over the entire term of the respective project. As is usual in the project business, a delay in incoming orders or payments has significant effects on the liquidity of the respective company and, if applicable, on the Group. In order to promptly identify the risks from delayed incoming payments, the Manz Group works with a rolling liquidity forecast, which is updated every two weeks. Based on current corporate planning and an order backlog in accordance with IFRS as of the reporting date December 31, 2020 of 202.3 million euros (previous year: 168.5 million euros), which will lead to future incoming payments, the Managing Board assumes that Manz AG will be able to meet its payment obligations in fiscal years 2021 and 2022.

Currency risks

Manz AG's currency risks arise from operating activities. In financial year 2020, these mainly related to transactions of the Asian companies from the sale of machinery. The transaction-related exchange rate risk resulting from the appreciation or depreciation of the US dollar against the New Taiwan Dollar, the euro against the New Taiwan Dollar and the euro against the Chinese Renminbi is generally hedged by forward exchange transactions wherever necessary and possible. Furthermore, economic currency risk is generally also reduced by distributing the production locations over several countries (natural hedging).

Information technology risks

A large proportion of the processes and communication in the Manz Group are IT-based. For this reason, the security of corporate data and the avoidance of interruptions to IT-supported business processes have a high priority. For this purpose, IT systems are protected against possible unauthorized access by third parties, as well as against malware, and alternative solutions are developed in the event of stability problems.

3.2.2 Strategic Risks

Risks from the strategic focus on dynamic growth markets

As a high-tech equipment manufacturer, Manz AG focuses on rapidly growing future markets with short product life cycles. With its production solutions, Manz contributes to the development of numerous technologies. For instance, components for smartphones and tablet computers, batteries for electrical vehicles, consumer electronics and stationary energy storage systems as well as solar modules are produced on Manz machines. This market positioning on highly competitive and innovation-driven markets bears the risk of a competitive disadvantage due to insufficient structural flexibility, insufficient expertise or a slow pace of development. In order to avoid this, the respective segments therefore always endeavor to recognize customer requirements and future technological trends in the industries at an early stage. Based on this knowledge, the company derives innovations with unique selling points in order to stay one step ahead of the competition. The innovation approaches are presented and discussed by the business units in a group-wide strategy meeting every six months and their implementation is approved after a detailed, positive review.

Dependence on major customers and industries

The development of production equipment for industrial companies entails the risk of a concentration in the order volume on individual projects, sectors and customers. If the loss of a major client cannot be compensated for, negative effects on the Manz Group's results are to be expected. For this reason, Manz pursues the goal of achieving a balanced order structure within its three strategic segments. In this regard, modularly combinable machines and machine components, as well as "small lines" and major projects (> EUR 10 million order volume) should be balanced. The risk of a decline in major customers is to be reduced in principle by broadening the customer base and diversifying project volumes and the business model. In addition, Manz accepts third-party business in the Contract Manufacturing segment in order to achieve balanced capacity utilization despite the cyclical development of its strategic business divisions.

3.2.3 Market Risks

Risks in connection with international business activities

Negative macroeconomic and financial developments in the international sales markets may have negative effects on business development. As a result, refinancing for Manz as a listed company via the capital market could become significantly more difficult. With potential clients of Manz AG in general, there is a risk that the necessary capital for investments in new equipment may not be available based on the markets, some of which are still young. As a result, Manz constantly monitors and analyzes the market and the competition in order to recognize such developments at an early stage and to counteract them. The flexibility of the entire corporate organization, the expansion of the product portfolio, the customer base and global sales capacities, and the focus on growth markets of the three core regions of Asia, Europe and the United States make it possible to react quickly to negative changes in individual markets.

Risks due to increasing competition

Existing and potential competitors, especially Asian manufacturers, could seek to gain market share in Manz AG's target industries, notably through aggressive pricing, imbalances through local tax and subsidy policies by states and governments, or through import restrictions to support national companies. A further risk is that there are too many new competitors, resulting in an oversupply on the market and, as a consequence, consolidation among companies. This could have a direct impact on the development of the company's market share and thus on Manz AG's sales, revenues and earnings. In order to counteract these risks effectively, the "Market Intelligence" division constantly conducts market and competitive surveys, which are discussed in detail in international sales meetings on a regular basis and serve as a basis for possible countermeasures. Furthermore, the CRM system (Customer Relationship Management System) provides leading indicators for assessing future market development. A detailed analysis of lost projects provides clarity about the competitive situation in a timely manner. The process of "product identification, development and market launch" also aims to provide the necessary competitive advantage on growth markets with strategic innovations and to further strengthen Manz AG's position as a high-tech equipment manufacturer. With its local facilities in Taiwan and China, the associated production costs that are standard for the local area, and direct customer contacts, Manz counteracts any churn to domestic competitors. Strategic cooperations, e.g., in the segment Energy Storage with the Chinese company Shenzhen Yinghe Technology Co. Ltd. are also aimed at streamlining the individual service portfolio by focusing, thereby reducing the cost base and increasing the company's competitiveness.

Risks from rapid technological change and from launching new products

Research and development as well as an innovative product portfolio are of crucial importance for the company to maintain its technological positioning in the market. The industries for which Manz AG develops and manufactures its machines and equipment are characterized by rapid technological change. Substitutive or disruptive technologies may occupy substantial parts of an existing market. As a result, Manz AG's competitors may be able to react faster or better to changes in customer requirements by developing corresponding technologies or software, thus gaining a competitive advantage over Manz AG. In these cases, the demand for the products of Manz AG could be significantly impaired. Furthermore, the Manz Group could develop machines and equipment for which there is little or no demand on the market. There is also a risk that the completion of new products currently under development may prove to be more complex than expected in the future. Problems with, e.g., technical feasibility, quality assurance, failure to meet deadlines, increased costs, etc., could at worst lead to the loss of customers in conjunction with financial losses. Manz AG endeavors to maintain close contact with its clients and thus to recognize new trends at an early stage. Furthermore, in the Business Development segment, we are also working on new application possibilities for the technologies developed by Manz. The proximity to the customer further enhances Manz AG through the constant expansion of the associated service business, in particular with after-sales service. Based on our risk analysis, Manz also pursues the goal of ensuring that projects and products are implemented in line with contractual agreements. Manz AG also counters the fundamental risk involved in developing and launching new products for individual customers by expanding its product portfolio to include machine components which can be customized to form modular assemblies or complete production machines at the customer's request.

3.2.4 Environmental risks

Risks related to pandemics

As an internationally active high-tech equipment manufacturer, Manz AG has production facilities in Germany, China, Taiwan, Slovakia, Hungary, and Italy, as well as global service branches. Activities in regions with less developed healthcare systems could have a negative impact on the company's business in the region in the event of pandemics and the resulting production stops, thus impacting the company's net assets, financial position and results of operations. In this context, the Corona pandemic could continue to have a negative impact on the execution of our customer projects in the segments Solar and Electronic Components in Asia, in particular.

Risk from the environment and nature

Natural disasters – such as earthquakes and floods or other events like fires – can lead to production stoppages, which could have a negative impact on the company's business development and thus impair its net assets, financial position and results of operations. In addition, there are risks of environmental pollution for which Manz AG could be held liable.

3.3 Opportunities Report

Industry focus with competitive and customer-oriented, innovative technology portfolio

With many years of proven expertise in automation, laser processing, vision processing, metrology, wet chemistry and roll-to-roll processes, Manz AG is active in the segments Solar, Electronics and Energy Storage. Manz AG offers a broad portfolio of innovative products to producers and their suppliers in a wide variety of industries worldwide. This includes customer-specific production systems right up to machines that can be linked together to form complete, individual system solutions based on a modular system. Manz AG also offers services around its core technological competencies. Diversification in technologies, industries and regions is aimed at adjusting production capacities in line with the investment cycles of individual industries and using them by other segments within the Group. This should create the stability necessary for sustainable corporate development. At the same time, this diversified business model gives the company the opportunity to benefit from the growth potential of several dynamic target markets. The company has, for example, opened up a further significant area in connection with the electric power trains in electric vehicles with a major order from a Tier1 automotive supplier for machines for the automated assembly of cell contacting systems for battery cells.

Sustainable competitiveness and profitability through profitable growth

Manz AG's diversified business model forms the basis for the sustained stability and long-term growth we are striving for. With the aim of significantly expanding its customer base and thus further stabilizing its business model, Manz AG is constantly expanding the proportion of modular machines in its product portfolio for all segments, in addition to customized solutions. These modular machines should be intelligently linked to complete, individual system solutions based on a modular system. This step should significantly reduce development risks, effort and duration and thus significantly shortens the amortization of development efforts. At the same time, this should create synergy effects for Manz AG which support the productivity of the entire Group.

Cost-conscious management is of crucial importance for the profitable development of a company. The diversified business model and ongoing measures to optimize costs are aimed at maintaining long-term competitiveness and profitability.

Cross-segment use of technology offers opportunities for synergy effects and flexibility

In developing its production equipment, Manz AG carries out an active technology transfer between the relevant target industries. By using its extensive technological expertise across industries, the company generates synergies and thus aims to make a contribution to minimizing its customers' production costs, thus contributing to their economic production. At the same time, the synergy effects achieved between the segments should increase the Manz Group's productivity and profitability. By leveraging the synergies between the individual segments, Manz AG's business model is also flexibly positioned for new growth trends and sales markets with additional revenues and earnings potential.

Strategic cooperation with Chinese partners opens up growth potential

Manz entered into a strategic alliance with a Chinese partner in the segment Energy Storage at the start of 2020. Shenzhen Yinghe Technology Co. Ltd. was formed in 2006 and is engaged in research and development, production and sales of intelligent automation solutions for the manufacture of lithium-ion battery cells. As part of this cooperation, Manz and Yinghe will jointly offer their customers the best equipment technology from their respective product portfolios in the form of a licensing arrangement. In addition to joint project management, both partners have agreed to provide mutual support for research and development activities in conjunction with production equipment for lithium-ion batteries. With this step, Manz is pursuing the goal of significantly improving its own starting position when placing orders for projects to be implemented in future, and thus being able to benefit from the market potential.

3.4 Assessment and Summary of the Risk and Opportunity Situation

Manz AG's risk portfolio consists of risks that can be influenced by the Group as well as risks that cannot be influenced, such as economic activity and sector development. The company regularly monitors and analyses the situation in these areas. Risks that can be influenced are identified at an early stage by appropriate monitoring and control systems and should therefore be avoided. Significant risks, which are likely to have serious negative effects on the ecological or social aspects, cannot be deduced from the business model of Manz AG.

The identification of risks and opportunities has not given rise to any risks that could jeopardize the continued existence of the entire Group or its Group companies for the financial year 2020 or for the forecast period 2021. A going concern risk is derived from the risk-bearing capacity key figure, which takes into account the cumulative expected value of all risks with a probability of occurrence of more than 40 %. If this figure exceeds half of the previous year’s consolidated or individual financial statement equity, this is defined as a going concern risk.

In fiscal 2020, the risk and opportunity situation with regard to the effects of the COVID-19 pandemic has improved, while the current temporary interruption of work on the CIGS orders in China is having a negative impact. For the remaining risks, the situation has essentially not hanged compared with the previous year. Risks whose significance according to the risk management system has no or less relevance compared with the previous year have not been listed in the current risk report. The risks and their possible effects are known, as are the measures to be initiated. Any opportunities that arise are analyzed and their realization initiated where necessary.

Opportunities	Impact	Probability of occurrence
Industry focus with competitive and customer-oriented, innovative technology portfolio	high	high
Sustainable competitiveness and profitability through profitable growth	high	medium
Cross-segmental use of technology offers synergy effects and flexibility	high	high
Strategic cooperation with Chinese partners opens up growth potential	medium	high

The Managing Board of Manz AG thus fulfills its obligation to inform the Supervisory Board and shareholders about the opportunities and risks of the company. It regards this reporting as an important element of corporate governance in practice.

From today's perspective, there are no existential risks to the future development of Manz AG that could have a material adverse effect on the Group's assets, financial and earnings situation.

4. Forecast Report

4.1 Economic and industry outlook

According to the forecast of the Kiel Institute for the World Economy (IfW), a significant part of the decline in production levels in the first half of the year was able to be recovered in the third quarter of 2020. While parts of the world again had to contend with rising infections in the winter, other regions such as the Asian region remained largely unaffected. Assuming a progressive normalization due to falling infection figures, the International Monetary Fund (IMF) forecasts global economic growth of 5.5 % in 2021, following a decline of 3.5 % in 2020. In contrast to most other nations, China showed positive economic growth of +2.3 % in 2020, and the IMF expects growth of 8.1 % for the current year. The projected growth of the USA is 5.1 % (2020: -3.4 %). The euro area was hit far harder than the global average in 2020 with -7.2 %, while expected growth in 2021 is put at 4.2 %. For Germany, growth of 3.5 % is assumed for 2021 following a slump of -5.4 % in 2020.

For global mechanical engineering revenues, the VDMA expects a recovery of 7 % in 2021 after a decline of 6 % in 2020 if the restrictions are lifted soon. Accordingly, the industry's revenue growth will be 6 % in the USA (2020: -8 %) and 7 % in the Chinese market (2020: 5 %). In Germany, revenue growth is expected to be 10 % (2020: -15 %). In the event of a rapid upswing due to a quick return to normality, lifting of travel restrictions and fiscal incentives, the VDMA believes that higher growth of 10 % in industry revenues worldwide is also possible. A global third wave with renewed lockdowns, on the other hand, would result in lower revenue growth of 3 %, according to VDMA.

In the fall of 2020, German manufacturers of PV production equipment were much more positive about the future than they were in 2019, expecting an average increase in revenues of 8.6 % in 2021. Globally, the International Energy Agency expects record growth in PV expansion in its baseline scenario for 2021, with around 117 GW installed. This would represent growth of 10 % compared to 2020, based primarily on a strong upswing in large-scale installations outside China, where expiring subsidies are slowing PV expansion. In contrast, large-scale development is resuming in India and the main EU markets (France and Germany).

As of Q3 2020, German electronics production manufacturers expect revenues to increase by 1.4 % in 2021 after a decline in 2020, according to VDMA. Similarly, Display Supply Chain Consultants (DSCC) expects global revenues of LCD and AMOLED displays to increase by 13.6 % to USD 117 billion in 2021. And Prismark is also forecasting annual growth of 8.6 % for the global PCB industry in 2021 due to the recovery in demand for computers, communication devices, consumer electronics and automotive electronics.

Manz expects strong demand for its assembly lines for the production of cell contacting systems in the coming years due to the rapidly growing market for electric vehicles. The consulting firm McKinsey forecasts sharply rising revenues figures for electric vehicles in the coming years. In Europe, for example, revenues are expected to rise from 0.6 million vehicles in 2019 to 2.9 million vehicles in 2022. China and the U.S. are expected to see 3.5 million and 1.0 million revenues, respectively. The Samsung EV Research Center also projects that global e-vehicle turnover will increase 34 % to 3.8 million vehicles in 2021, which would make EVs account for 4.7 % of global vehicle purchases.

According to the management consultancy Roland Berger, the growing popularity of electric vehicles will also lead to enormous demand for lithium-ion batteries in the coming years. Accordingly, battery production in Europe is on the verge of a major breakthrough: by 2025, an annual production capacity of almost 500 GWh is expected to come on stream. The global market volume for the high-value production equipment needed to build numerous gigafactories will grow by 34 % annually through 2030. As the market volume increases more than tenfold – from EUR 1.7 billion in 2020 to EUR 3.2 billion in 2021 and EUR 20.9 billion in 2025 – European equipment suppliers, in particular, will benefit from this development. Although they accounted for only 8 % of the market in 2020, Europe will be the second largest market for production equipment by 2025, with a market share of 15 % and a volume of more than EUR 3.2 billion in 2025. Based on a survey of German manufacturers, the Battery Production Association of the VDMA expects year-on-year revenue growth of 14 % in 2021, up from 6 % in the previous year (as of Q3 2020). And developments in the market for wearables are also likely to further support demand for lithium-ion batteries. For example, IDC forecasts a five-year compound annual growth rate (CAGR) of 12.4 % and a total number of 637.1 million devices in 2024.

4.2 Overall Assessment of the Company's Future Development

Due to the overall positive industry outlook in the countries and markets relevant for Manz AG, the Managing Board expects Manz AG to grow by 30 % - 40 % in revenues and total operating revenue, also due to the expected completion of the large CIGS projects in 2021. Compared to 2020, the Managing Board expects a positive EBITDA margin in the mid single-digit percentage range and an EBIT margin in the low to mid positive single-digit percentage range. The equity ratio is expected to exceed 20 %; with regard to gearing, the Executive Board anticipates a comparable figure compared with 2020.

The forecast continues to take into account the currently assessable impact of the Corona pandemic on the economic development of our company, but is based on the assumption that the further spread of the virus will not have any additional negative impact on the development of our business in the Solar, Electronics, Energy Storage and Contract Manufacturing segments in fiscal year 2021.

On a segment level, the Management Board expects Energy Storage sales to increase by at least 20 % in 2021. In addition, the Management Board expects a significant sales increase of 300 % to 400 % in the Electronics segment. Slight sales growth is also expected in the Service segment. In the Solar segment, sales are expected to increase significantly year-on-year in the course of 2021, subject to continued work on the CIGS orders. Due to the delays in the overall project caused by the customer and the effects of the corona pandemic, the Management Board expects the final acceptance of the machines and the receipt of payment of the remaining amount of around EUR 50 million by the end of the fiscal year 2021. In the Contract Manufacturing segment, the Management Board expects sales to be comparable to the previous year.

The overall positive expectations for 2021 are underpinned by a positive development in inquiry intensity, incoming orders, and a solid order backlog of 563.5 million euros as of December 31, 2020 (previous year: 462.0 million euros).

The Managing Board's goal is to further develop the comprehensive technology portfolio on the one hand and to strengthen and expand Manz AG's good market position in all segments on the other. With its technologies, Manz AG will focus in particular on the automotive and electromobility, battery manufacturing, electronics, energy, and medical technology industries in the future.

Forward-looking statements

This report contains forward-looking statements, which are based on the current assumptions and forecasts of Manz AG's Managing Board. Such statements are subject to both risks and uncertainties. These and other factors could cause the actual results, financial position, developments or performance of the Company to differ materially from the estimates given here. Our company assumes no obligation to update these forward-looking statements or adapt them to future events or developments.

Reutlingen, March 23, 2021

Manz AG

Martin Drasch Chief Executive Officer	Manfred Hochleitner	Jürgen Knie

Manz AG, Reutlingen
Legal background

Preliminary remarks:

1. Legal position of the Company

Commercial register	The Company is entered in the commercial register of Stuttgart Local Court under HRB no. 353989. An excerpt from the commercial register dated 13 January 2021 with the latest entry dated 15 September 2020 was made available to us.
Articles of association and bylaws	The articles of association and bylaws were concluded on 21 August 2001 and last amended on 30 June 2020.
Purpose of the Company	The Company's purpose is a) to develop, manufacture and sell systems for automation solutions and quality assurance as well as processing equipment b) to render services, in particular the design, installation, servicing and programming related to delivering systems and processing equipment. The Company is entitled to take all actions and implement all measures in pursuit of the purpose of the Company. In particular, it may establish subsidiaries and branch offices in Germany and abroad, acquire or sell companies and equity investments in companies of any legal form in Germany and abroad, include other companies under common control and conclude corporate agreements with them or to limit themselves to the administration of the equity investments. It is entitled to spin off or transfer some or all of its operations to affiliates.
Fiscal year	The fiscal year is the calendar year.

Share capital	EUR 7,744,088.00 (fully paid in) By resolution of the annual general meeting, the Managing Board was authorized on 12 July 2016 to raise the Company's share capital in the period until 11 July 2021 with the approval of the Supervisory Board, once or several times, by a total of up to EUR 3,872,044.00 by issuing up to 3,872,044 new no-par value registered shares in exchange for cash or contributions in kind (authorized capital 2016).
Capital market	The Company's shares are traded over the counter. As of 31 December 2020, the following shareholders had a share in the share capital:

	Shares	%
Dieter Manz	2,175,199	28.09
thereof held directly	953,942	12.32
thereof allocated	1,221,257	15.77
Shanghai Electric Germany Holding GmbH	1,523,480	19.67
Invesco Advisers, Inc	500,268	6.46
Free float	3,545,243	45.78
	7,744,088	100.0

Supervisory Board	In accordance with the articles of association and bylaws, the Company has a supervisory board. It consists of four members. The members are: Prof. Dr. Heiko Aurenz, Dipl. oec., Chairman, since 2000 Prof. Dr.-Ing. Michael Powalla, since 2011 Dieter Manz, Dipl.-Ing. (FH) (graduate engineer), Deputy Chairman, since August 2017 Dr. Zhiming Xu, since October 2017

Managing Board

The Managing Board has at least one member. The Supervisory Board appoints the Managing Board members pursuant to the provisions of the AktG ["Aktiengesetz": German Stock Corporation Act] and determines the number of members.

If only one Managing Board member has been appointed, he or she represents the Company alone. The Company is represented by two Managing Board members or one Managing Board member acting jointly with an authorized signatory if several Managing Board members are appointed. The Supervisory Board may grant Managing Board members sole powers of representation and exempt them from the restrictions prescribed by Sec. 181 BGB ["Bürgerliches Gesetzbuch": German Civil Code], entitling them to enter into contracts on behalf of the Company as a representative of third parties.

Managing Board:

Martin Drasch, Dipl. Ing. (FH) (graduate engineer), CEO
Manfred Hochleitner, Dipl.-Math (Uni) (graduate mathematician), CFO
Jürgen Knie, Dipl. Wirt. Ing. (FH) (graduate industrial engineer), COO

Authorized signatories:

Hannes Reinhardt, Römerstein
Holger Wanko, Kirchentellinsfurt
Jürgen Sprenger, Bretzfeld-Waldbach

The Managing Board granted signing authority on 18 December 2017 so that each authorized signatory represents the Company jointly with one member of the Company's Managing Board. The entry in the commercial register was made on 19 February 2018.

Annual general meeting	The annual general meeting is convened by the Managing Board or the Supervisory Board. It can be held at the Company's registered offices, the registered offices of a German public stock exchange or in any city in Baden-Württemberg. The shareholders are entitled to participate in the annual general meeting and to exercise shareholder voting rights if they sign up in writing prior to the annual general meeting and provide proof of their shareholding. The resolutions of the annual general meeting are passed by a simple majority of the votes cast unless otherwise agreed by mandatory provisions by the AktG. If the AktG also prescribes a majority of the subscribed capital represented for passing resolutions, the simple majority of the share capital represented suffices, to the extent legally permissible.

2. Economic background

Profit appropriation	If the annual general meeting ratifies the annual financial statements, half of the net income for the year may be recognized in other revenue reserves. If the Managing Board and the Supervisory Board ratify the annual financial statements, they may transfer up to 50% of the net income for the year in other revenue reserves as long as the other revenue reserves do not exceed half of the share capital or will not exceed them after transfer.

Significant contracts

Real estate lease agreement Steigäckerstrasse 5

By real estate lease agreement dated 20 February/4 May 2004, the new production and administration building in Steigäckerstrasse 5 of ROSOLA Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Reutlingen KG were leased. The lease agreement has a term of 30 years.

In 2008, the extension in Steigäckerstrasse 5 in Reutlingen was included in the existing lease agreement by addendum no. 3 of the existing real estate lease agreement with ROSOLA Grundstücks-Vermietungsgesellschaft mbH & Co. Objekt Reutlingen KG dated 20 February/4 May 2004. The term of the lease agreement was thus reduced to 22.25 years and now ends on 30 September 2027.

By real estate leasing agreement dated 21 July/25 July 2011, the production and administration building with a warehouse in Jopestrasse 14 of MOLTUNIS Vermietungsgesellschaft mbH & Co. Objekt Tübingen KG were leased. The lease has a term of 17.9 years.

Patent and know-how license agreement with ZSW

There is a patent and know-how license agreement from 2017 in place between Manz AG and the Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW), Stiftung des bürgerlichen Rechts, a research institute of the state of Baden-Württemberg. In accordance with the patent and know-how license agreement, ZSW grants Manz AG specific licenses of patents and know-how with regard to the CIS and CIGS technology for manufacturing thin-film solar cells. The patent and know-how license agreement may be terminated by ZSW for good cause if the equity investment of a competitor of ZSW in Manz AG reached or exceeds 30% of the voting rights within the meaning of Sec. 21 et seq. WpHG ["Wertpapierhandelsgesetz": German Securities Trading Act] (as amended in the version before 3 January 2018).

Patent and know-how license agreement with NICE Solar Energy GmbH (formerly Manz CIGS Technology GmbH)

In 2017, a patent and know-how license agreement was concluded between Manz AG and NICE Solar Energy GmbH (formerly Manz CIGS Technology GmbH), a subsidiary of NICE PV Research Ltd., in which China Energy Investment Corporation Limited (formerly Shenhua Group), Shanghai Electric Group Co. Ltd. and Manz AG hold equity investments. In accordance with the patent and know-how license agreement, NICE Solar Energy GmbH (formerly Manz CIGS Technology GmbH) grants Manz AG specific licenses of patents and know-how with regard to the CIS and CIGS technology for manufacturing thin-film solar cells. The patent and know-how license agreement may be terminated by NICE Solar Energy GmbH (formerly Manz CIGS Technology GmbH) for good cause if a third party directly or indirectly acquires at least 30.0% of the shares in Manz AG. However, a threshold of 30.0% exceeding an indirect or direct acquisition of shares by Shanghai Electric Group Co. Ltd., China Energy Investment Corporation Limited (formerly Shenhua Group) or such acquisition by Dieter Manz does not rule out the right of termination.

3. Tax background

Tax field audit

These annual financial statements as of 31 December 2020 constitute the Company's commercial balance sheet. The taxable profit is determined in an ancillary calculation derived from the result of the commercial balance sheet using a statement of reconciliation pursuant to Sec. 60 II EstDV ["Einkommensteuerdurchführungsverordnung": German Income Tax Implementation Ordinance] as well as off-balance-sheet and trade tax additions and deductions.

The most recent tax field audit covered the period from 1 January 2014 to 31 December 2015. This was completed in fiscal year 2018. An income tax field audit is currently underway for the assessment periods from 2016 through 2018. The results of this audit are not yet available.

There were no significant changes in the legal background after the reporting date.

Engagement Terms, Liability and Conditions of Use

In the audit report, the auditors summarize the results of their work, reporting in particular to those bodies of the Company responsible for its oversight. By documenting material audit findings, the audit report supports the bodies responsible in the process of overseeing the Company. For this reason, the report - notwithstanding any right of third parties based on special legal provisions to receive or inspect it - is addressed exclusively to the bodies of the Company for internal use.

Our work is based on our engagement agreement for the audit of these financial statements including the General Engagement Terms for “Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften” [German Public Auditors and Public Audit Firms] as issued by the Institute of Public Auditors in Germany [“Institut der Wirtschaftsprüfer”: IDW] on 1 January 2017.

This audit report is solely intended to serve as a basis for decisions of bodies of the Company and must not be used for purposes other than those intended. We therefore assume no responsibility, liability or other obligations towards third parties unless we have concluded a written agreement to the contrary with the respective third party or liability cannot effectively be precluded.

We make express reference to the fact that we do not update the audit report and/or audit opinion to reflect events or circumstances arising after the audit opinion was issued unless required to do so by law.

It is the sole responsibility of anyone taking note of the information contained in this audit report to decide whether and in what way this information is useful or suitable for their purposes and to supplement, verify or update it by means of their own review procedures.

[Translator's notes are in square brackets]

General Engagement Terms
for
Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften
[German Public Auditors and Public Audit Firms]
as of January 1, 2017

1. Scope of application

(1) These engagement terms apply to contracts between German Public Auditors (*Wirtschaftsprüfer*) or German Public Audit Firms (*Wirtschaftsprüfungsgesellschaften*) – hereinafter collectively referred to as "German Public Auditors" – and their engaging parties for assurance services, tax advisory services, advice on business matters and other engagements except as otherwise agreed in writing or prescribed by a mandatory rule.

(2) Third parties may derive claims from contracts between German Public Auditors and engaging parties only when this is expressly agreed or results from mandatory rules prescribed by law. In relation to such claims, these engagement terms also apply to these third parties.

2. Scope and execution of the engagement

(1) Object of the engagement is the agreed service – not a particular economic result. The engagement will be performed in accordance with the German Principles of Proper Professional Conduct (*Grundsätze ordnungsmäßiger Berufsausübung*). The German Public Auditor does not assume any management functions in connection with his services. The German Public Auditor is not responsible for the use or implementation of the results of his services. The German Public Auditor is entitled to make use of competent persons to conduct the engagement.

(2) Except for assurance engagements (*betriebswirtschaftliche Prüfungen*), the consideration of foreign law requires an express written agreement.

(3) If circumstances or the legal situation change subsequent to the release of the final professional statement, the German Public Auditor is not obligated to refer the engaging party to changes or any consequences resulting therefrom.

3. The obligations of the engaging party to cooperate

(1) The engaging party shall ensure that all documents and further information necessary for the performance of the engagement are provided to the German Public Auditor on a timely basis, and that he is informed of all events and circumstances that may be of significance to the performance of the engagement. This also applies to those documents and further information, events and circumstances that first become known during the German Public Auditor's work. The engaging party will also designate suitable persons to provide information.

(2) Upon the request of the German Public Auditor, the engaging party shall confirm the completeness of the documents and further information provided as well as the explanations and statements, in a written statement drafted by the German Public Auditor.

4. Ensuring independence

(1) The engaging party shall refrain from anything that endangers the independence of the German Public Auditor's staff. This applies throughout the term of the engagement, and in particular to offers of employment or to assume an executive or non-executive role, and to offers to accept engagements on their own behalf.

(2) Were the performance of the engagement to impair the independence of the German Public Auditor, of related firms, firms within his network, or such firms associated with him, to which the independence requirements apply in the same way as to the German Public Auditor in other engagement relationships, the German Public Auditor is entitled to terminate the engagement for good cause.

5. Reporting and oral information

To the extent that the German Public Auditor is required to present results in writing as part of the work in executing the engagement, only that written work is authoritative. Drafts are non-binding. Except as otherwise agreed, oral statements and explanations by the German Public Auditor are binding only when they are confirmed in writing. Statements and information of the German Public Auditor outside of the engagement are always non-binding.

6. Distribution of a German Public Auditor's professional statement

(1) The distribution to a third party of professional statements of the German Public Auditor (results of work or extracts of the results of work whether in draft or in a final version) or information about the German Public Auditor acting for the engaging party requires the German Public Auditor's written consent, unless the engaging party is obligated to distribute or inform due to law or a regulatory requirement.

(2) The use by the engaging party for promotional purposes of the German Public Auditor's professional statements and of information about the German Public Auditor acting for the engaging party is prohibited.

7. Deficiency rectification

(1) In case there are any deficiencies, the engaging party is entitled to specific subsequent performance by the German Public Auditor. The engaging party may reduce the fees or cancel the contract for failure of such subsequent performance, for subsequent non-performance or unjustified refusal to perform subsequently, or for unconscionability or impossibility of subsequent performance. If the engagement was not commissioned by a consumer, the engaging party may only cancel the contract due to a deficiency if the service rendered is not relevant to him due to failure of subsequent performance, to subsequent non-performance, to unconscionability or impossibility of subsequent performance. No. 9 applies to the extent that further claims for damages exist.

(2) The engaging party must assert a claim for the rectification of deficiencies in writing (*Textform*) [*Translators Note: The German term "Textform" means in written form, but without requiring a signature*] without delay. Claims pursuant to paragraph 1 not arising from an intentional act expire after one year subsequent to the commencement of the time limit under the statute of limitations.

(3) Apparent deficiencies, such as clerical errors, arithmetical errors and deficiencies associated with technicalities contained in a German Public Auditor's professional statement (long-form reports, expert opinions etc.) may be corrected – also versus third parties – by the German Public Auditor at any time. Misstatements which may call into question the results contained in a German Public Auditor's professional statement entitle the German Public Auditor to withdraw such statement – also versus third parties. In such cases the German Public Auditor should first hear the engaging party, if practicable.

8. Confidentiality towards third parties, and data protection

(1) Pursuant to the law (§ [Article] 323 Abs 1 [paragraph 1] HGB [German Commercial Code: *Handelsgesetzbuch*], § 43 WPO [German Law regulating the Profession of Wirtschaftsprüfer: *Wirtschaftsprüferordnung*], § 203 StGB [German Criminal Code: *Strafgesetzbuch*]) the German Public Auditor is obligated to maintain confidentiality regarding facts and circumstances confided to him or of which he becomes aware in the course of his professional work, unless the engaging party releases him from this confidentiality obligation.

(2) When processing personal data, the German Public Auditor will observe national and European legal provisions on data protection.

9. Liability

(1) For legally required services by German Public Auditors, in particular audits, the respective legal limitations of liability, in particular the limitation of liability pursuant to § 323 Abs. 2 HGB, apply.

(2) Insofar neither a statutory limitation of liability is applicable, nor an individual contractual limitation of liability exists, the liability of the German Public Auditor for claims for damages of any other kind, except for damages resulting from injury to life, body or health as well as for damages that constitute a duty of replacement by a producer pursuant to § 1 ProdHaftG [German Product Liability Act: *Produkthaftungsgesetz*], for an individual case of damages caused by negligence is limited to € 4 million pursuant to § 54 a Abs. 1 Nr. 2 WPO.

(3) The German Public Auditor is entitled to invoke demurs and defenses based on the contractual relationship with the engaging party also towards third parties.

(4) When multiple claimants assert a claim for damages arising from an existing contractual relationship with the German Public Auditor due to the German Public Auditor's negligent breach of duty, the maximum amount stipulated in paragraph 2 applies to the respective claims of all claimants collectively.

(5) An individual case of damages within the meaning of paragraph 2 also exists in relation to a uniform damage arising from a number of breaches of duty. The individual case of damages encompasses all consequences from a breach of duty regardless of whether the damages occurred in one year or in a number of successive years. In this case, multiple acts or omissions based on the same source of error or on a source of error of an equivalent nature are deemed to be a single breach of duty if the matters in question are legally or economically connected to one another. In this event the claim against the German Public Auditor is limited to € 5 million. The limitation to the fivefold of the minimum amount insured does not apply to compulsory audits required by law.

(6) A claim for damages expires if a suit is not filed within six months subsequent to the written refusal of acceptance of the indemnity and the engaging party has been informed of this consequence. This does not apply to claims for damages resulting from scienter, a culpable injury to life, body or health as well as for damages that constitute a liability for replacement by a producer pursuant to § 1 ProdHaftG. The right to invoke a plea of the statute of limitations remains unaffected.

10. Supplementary provisions for audit engagements

(1) If the engaging party subsequently amends the financial statements or management report audited by a German Public Auditor and accompanied by an auditor's report, he may no longer use this auditor's report.

If the German Public Auditor has not issued an auditor's report, a reference to the audit conducted by the German Public Auditor in the management report or any other public reference is permitted only with the German Public Auditor's written consent and with a wording authorized by him.

(2) If the German Public Auditor revokes the auditor's report, it may no longer be used. If the engaging party has already made use of the auditor's report, then upon the request of the German Public Auditor he must give notification of the revocation.

(3) The engaging party has a right to five official copies of the report. Additional official copies will be charged separately.

11. Supplementary provisions for assistance in tax matters

(1) When advising on an individual tax issue as well as when providing ongoing tax advice, the German Public Auditor is entitled to use as a correct and complete basis the facts provided by the engaging party – especially numerical disclosures; this also applies to bookkeeping engagements. Nevertheless, he is obligated to indicate to the engaging party any errors he has identified.

(2) The tax advisory engagement does not encompass procedures required to observe deadlines, unless the German Public Auditor has explicitly accepted a corresponding engagement. In this case the engaging party must provide the German Public Auditor with all documents required to observe deadlines – in particular tax assessments – on such a timely basis that the German Public Auditor has an appropriate lead time.

(3) Except as agreed otherwise in writing, ongoing tax advice encompasses the following work during the contract period:

a) preparation of annual tax returns for income tax, corporate tax and business tax, as well as wealth tax returns, namely on the basis of the annual financial statements, and on other schedules and evidence documents required for the taxation, to be provided by the engaging party

b) examination of tax assessments in relation to the taxes referred to in (a)

c) negotiations with tax authorities in connection with the returns and assessments mentioned in (a) and (b)

d) support in tax audits and evaluation of the results of tax audits with respect to the taxes referred to in (a)

e) participation in petition or protest and appeal procedures with respect to the taxes mentioned in (a).

In the aforementioned tasks the German Public Auditor takes into account material published legal decisions and administrative interpretations.

(4) If the German Public auditor receives a fixed fee for ongoing tax advice, the work mentioned under paragraph 3 (d) and (e) is to be remunerated separately, except as agreed otherwise in writing.

(5) Insofar the German Public Auditor is also a German Tax Advisor and the German Tax Advice Remuneration Regulation (*Steuerberatungsvergütungsverordnung*) is to be applied to calculate the remuneration, a greater or lesser remuneration than the legal default remuneration can be agreed in writing (*Textform*).

(6) Work relating to special individual issues for income tax, corporate tax, business tax, valuation assessments for property units, wealth tax, as well as all issues in relation to sales tax, payroll tax, other taxes and dues requires a separate engagement. This also applies to:

a) work on non-recurring tax matters, e.g. in the field of estate tax, capital transactions tax, and real estate sales tax**;**

b) support and representation in proceedings before tax and administrative courts and in criminal tax matters;

c) advisory work and work related to expert opinions in connection with changes in legal form and other re-organizations, capital increases and reductions, insolvency related business reorganizations, admission and retirement of owners, sale of a business, liquidations and the like, and

d) support in complying with disclosure and documentation obligations.

(7) To the extent that the preparation of the annual sales tax return is undertaken as additional work, this includes neither the review of any special accounting prerequisites nor the issue as to whether all potential sales tax allowances have been identified. No guarantee is given for the complete compilation of documents to claim the input tax credit.

12. Electronic communication

Communication between the German Public Auditor and the engaging party may be via e-mail. In the event that the engaging party does not wish to communicate via e-mail or sets special security requirements, such as the encryption of e-mails, the engaging party will inform the German Public Auditor in writing (*Textform*) accordingly.

13. Remuneration

(1) In addition to his claims for fees, the German Public Auditor is entitled to claim reimbursement of his expenses; sales tax will be billed additionally. He may claim appropriate advances on remuneration and reimbursement of expenses and may make the delivery of his services dependent upon the complete satisfaction of his claims. Multiple engaging parties are jointly and severally liable.

(2) If the engaging party is not a consumer, then a set-off against the German Public Auditor's claims for remuneration and reimbursement of expenses is admissible only for undisputed claims or claims determined to be legally binding.

14. Dispute Settlement

The German Public Auditor is not prepared to participate in dispute settlement procedures before a consumer arbitration board (*Verbraucherschlichtungsstelle*) within the meaning of § 2 of the German Act on Consumer Dispute Settlements (*Verbraucherstreitbeilegungsgesetz*).

15. Applicable law

The contract, the performance of the services and all claims resulting therefrom are exclusively governed by German law.