Im Hinblick auf die Anforderungen von § 322 Abs. 7 HGB tritt die elektronische Fassung nicht an die Stelle, sondern neben die Papierfassung im Sinne einer elektronischen Kopie.

Considering the requirements of Sec. 322 (7) Sentence 1 HGB, the electronic version does not replace the hardcopy but is prepared in addition to it and is an electronic copy thereof.

Manz AG
Reutlingen

Short-form audit report
Annual financial statements and management report
31 December 2018

Translation from the German language

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Building a better working world

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Note:

We have issued the audit opinion presented below in compliance with legal and professional requirements subject to the conditions described in the enclosed "Engagement Terms, Liability and Conditions of Use".

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 of 31 December 2018, and the income statement for the fiscal year from 1 January to 31 December 2018, and notes to the financial statements, including the recognition and measurement policies presented therein. In addition, we have audited the management report of Manz AG for the fiscal year from 1 January to 31 December 2018.

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 2018 and of its financial performance for the fiscal year from 1 January to 31 December 2018 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. 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 as well as 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 2018. 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 2018 reported in the annual financial statements of Manz AG account for approximately 28% (prior year: 34%) of total assets. For the purpose of impairment testing, the Company's executive directors determine the fair 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 budget by comparing with internal data. We also analyzed the forecasts of individual equity investments with regard to adherence to the budget in the past and obtained evidence substantiating the individual assumptions of the forecasts.

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 “Recognition and measurement 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 Group’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. This enabled us to assess the accuracy of revenue recognition. To identify anomalies in margin development throughout the projects’ execution, we also applied data analysis procedures.

In addition, we analyzed billable revenues and corresponding cost of sales to be recognized in the income statement in the reporting period 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.

Reference to related disclosures:

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

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 financial statements, management is 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 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 and the reasonableness of accounting estimates and related disclosures made by management;

- 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

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

We were elected as auditor by the annual general meeting on 3 July 2018. We were engaged by the Supervisory Board on 5 July 2018. We have been the auditor of Manz AG 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 Martin Matischiok."

Stuttgart, 21 March 2019

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

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

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MANZ AG, REUTLINGEN BALANCE SHEET FOR DECEMBER 31, 2018

A S S E T S

	12/31/2018 euros		12/31/2017 euros
A. NON-CURRENT ASSETS			
I. Intangible assets			
1. Internally generated industrial property rights and similar rights and assets	17,021,503.50		15.,084,926.58
2. Concessions, industrial and similar rights and assets and licenses in such rights and assets	439,629.37		587,664.88
		17,461,132.87	15,672,591.46
II. Tangible Assets			
1. Land, land rights and buildings including buildings on third party land	329,118.00		385,803.00
2. Technical equipment and machines	1,770,546.00		1,413,305.00
3. Other equipment, factory and office equipment	723,728.00		828,178.00
		2,823,392.00	2,627,286.00
III. Financial assets			
1. Shares in affiliated companies	51,792,155.12		49,100,674.86
2. Loans to affiliated companies	5,733,057.45		6,543,014.90
3. Participations	20,006,265.11		23.575.265,11
		77,531,477.68	79,218,954.87
		97,816,002.55	97,518,832.33
B. CURRENT ASSETS			
I. Inventories			
1. Raw materials, consumables and supplies	3,376,508.99		4,750,248.89
2. Unfinished goods	138,149,654.58		45,404,467.11
3. Finished goods and merchandise	10,502,593.12		11,000,057.61
4. Prepayments	62,040,332.26		34,882,031.81
5. Payments received on account of orders	-125,845,425.30		-33,702,778.82
		88,223,663.65	62,334,026.60
II. Receivables and other assets			
1. Trade receivables	905,473.53		2,050,815.38
2. Receivables from affiliated companies	1,631,563.04		275,198.45
3. Other assets	473,478.78		2,373,996.84
		3,010,515.35	4,700,010.67
III. Cash in hand , bank balances and checks		63,340,826.10	49,651,196.31
		154,575,005.10	116,685,233.58
C. PREPAID EXPENSES		560,842.17	301,368.30
		252,951,849.82	214,505,434.21

L I A B I L I T I E S

A. EQUITY

I. Subscribed capital

II. Capital reserves

III. Revenue reserves

IV. Retained earnings

B. PROVISIONS

1. Provisions for pensions and similar obligation

2. Other provisions

C. LIABILITIES

1. Payments received on account of order
2. Trade payables
3. Payables to affiliated companies
4. Other payables
   - from taxes: EUR 547,980.46
   (previous year: EUR 461,389.11):

MANZ AG, REUTLINGEN

INCOME STATEMENT FOR THE FISCAL YEAR 2018

	2018 euros		2017 euros
1. Revenues		37,806,381.77	41,517,374.35
2. Increase or decrease in finished goods and unfinished goods		92,247,722.98	8,349,071.18
3. Other capitalized internal work		4,722,719.37	7,893,352.90
4. Other operating income - of which from currency conversion: EUR 128,120.80 (previous year: EUR 15,977.30)		3,936,586.42	5,295,793.58
5. Cost of materials			
a) Cost of raw materials, consumables and supplies and of purchased goods	-87,404,764.79		-28,673,340.98
b) Cost of purchased services	-10,666,863.27		-12,020,834.61
		-98,071,628.06	-40,694,175.59
6. Personnel expenses			
a) Wages and salaries	-28,811,973.05		-28,745,482.70
b) Social security, post-employment and other employee benefit costs - of which for pension provisions: EUR 70,373.58 (previous year: EUR 56,940.20)	-5,005,672.02		-4,920,257.50
		-33,817,645.07	-33,665,740.20
7. Depreciation			
a) Depreciation for intangible fixed assets and property, plant and equipment		-3,640,033.46	-3,622,705.79
8. Other operating expenses - of which expenses acc. to section Art. 67 (1) and (2) EGHGB: EUR 51,210.00 (previous year: EUR 51,210.00) - of which from currency conversion: EUR 20.865,58 (previous year: EUR 217,729.50)		-20,653,213.10	-27,017,930.09
9. Operating result		-17,469,109.15	-41,944,959.66
10. Other interest and similar income - Of which from affiliated companies: EUR 201,922.17 (previous year: EUR 566,287.22) - Of which from compounding: EUR 5,223.04 (previous year: EUR 0.00)		238,877.06	569,755.68
11. Depreciation of financial assets and of securities held as current assets		-3,579,000.00	-2,302,078.78
12. Interest and similar expenses - of which to affiliates: EUR 0.00 (previous year: EUR 0.00) - of which from compounding: EUR 261,621.00 (previous year: EUR 243,165.24)		-270,637.60	-674,316.94
13. Financial result		-3,610,760.54	-2,406,640.04
14. Income Taxes		0.00	-6,459.56
15. Earnings after taxes		-21,079,869.69	-44,358,059.26
16. Other taxes		-15,278.28	-39,460.02
17. Loss fort he year		-21,095,147.97	-44,397,519.28
18. Loss carried forward from the previous year		-4,752,842.50	-5,355,323.22
19. Withdrawals from capital reserves		20,000,000.00	45,000,000.00
20. Retained earnings		-5,847,990.47	-4,752,842.50

Manz AG, Reutlingen notes for fiscal year 2018

General information

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

The existing annual financial statements have been prepared in accordance with the provisions of sections 242 et seqq. of the German Commercial Code and with the relevant provisions of the German Stock Corporation Act (AktG) and the Articles of Incorporation. The company is subject to the regulations applicable to large stock corporations.

The profit and loss account is prepared according to the total cost method.

Accounting and valuation methods

Presentation, structure, approach, 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 depreciation will be 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 depreciation over their useful life. Depreciation is based on useful lives of three to five years.

Property, plant, and equipment are stated at acquisition or manufacturing cost and, insofar as they are depreciable, 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 800.00 euros are fully depreciated in the year of acquisition.

In the case of **financial investments**, the share rights, holdings and loans to affiliated companies are recognized at their acquisition or lower fair market value, insofar as a permanent reduction in value can be assumed. The determination of the fair values is based on the plans available for the respective companies. The values used in the planning are based on numerous assumptions, so that the determination of the fair values is discretionary. Loans are valued at face value.

Inventories of **raw materials, consumables, and supplies** are capitalized at the lower of average or past cost prices or at daily prices on the balance sheet date.

Work **in progress** is valued at manufacturing cost on the basis of individual calculations based on current operating accounts. In addition, directly attributable direct material costs, production charges, and special expenses, and manufacturing and material overhead, as well as proportionate administrative costs, are also taken into account.

There were no 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 cost 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 payment received exceeds the cost of inventories, it is reported under prepaid liabilities received.

Demands and other assets are stated at their nominal value. All risky items are accounted for by the creation of appropriate individual allowances; the general credit risk was taken into account by a write-down of approximately 1.0 % on the trade receivables, with a reduced VAT and still outstanding at the balance sheet date.

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

Differences between the commercial and tax valuations of assets, liabilities, and deferred income, as well as the inclusion of eligible loss and interest carry forwards, are recognized as a surplus of **deferred tax liabilities** if a tax burden is to be assumed in future fiscal years. If an overall future tax relief is expected, **deferred tax assets** are recognized. 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 in accordance with the corporate 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. Here, stock options are granted with a certain waiting period. The recipient receives a Manz share at the price of 1.00 euro after expiration of the waiting period. The stock awards expire when the employment is terminated, or a termination agreement is concluded. A conditional increase in share capital was approved in 2008, 2011, 2012, and 2015 in order to service the stock options (see also Conditional Capital I, II, IV). As in previous years, the issuance of stock options/awarded stock shares was not accounted for in this commercial balance sheet of Manz AG.

The **Pension obligations** are valued at the settlement calculated using the Projected Unit Credit Plan In contrast to the previous year, the "2018 guideline tables" by Prof. Dr. Ing. Klaus Heubeck were used for the Manz AG 2018 closing. For discounting purposes, the average market interest rate for the past ten years, with a remaining term of 15 years, of

3.21 % was used (previous year: 3.67 %). Expected pension increases of 1.7 % (previous year: 1.7 %) and salary increases of 2.5 % were taken into account.

The **anniversary provisions** are recognized in accordance with § 253 (1) sentence 2 HGB at the settlement amount required by reasonable commercial judgment. For the discounting, the average market interest rate of the past seven years, with a remaining term of 15 years, of 2.36 % was used (previous year: 2.84 %). The expected fluctuation was taken into account at a rate of 10.00 % (previous year: 9.00 %).

Other provisions take into account all uncertain liabilities and anticipated losses from pending transactions. These are made up to the settlement amount deemed necessary (including future increases in costs and prices) based on reasonable business judgment. Reserves 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.

Liabilities are stated at the settlement amount.

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

Explanations for the balance sheet

Fixed assets

The development of the individual items of fixed assets is shown in the schedule of assets, stating the depreciations of the financial year.

Internally generated intangible assets

Research and development costs amounted to a total of 9,065 thousand euros in the financial year, of which development costs of 4,517 thousand euros were capitalized as intangible assets.

Investments

The composition of shareholdings is shown in the following table:

Shares held in affiliated companies	Participation in %	Equity in thousand EUR	Result in tsd. EUR
Manz USA Inc., North Kingstown, USA [1]	100,00%	705	58
Manz Hungary Kft., Debrecen, Hungary [1]	100,00%	1.340	462
Manz Slovakia, s.r.o., Nove Mesto nad Vahom, Slovakia [1]	100,00%	11.142	2.049
Manz Italy s.r.l., Sasso Marconi, Italy [1]	100,00%	6.995	617
Suzhou Manz New Energy Equipment Ltd., Suzhou, PRC [1]	56.00 %	1.210	-363
Manz Asia Ltd., Hong-Kong, PRC [1]	100,00%	23.563	-1.052
Manz China Suzhou Ltd., Suzhou, PRC[1]	100,00%	6.938	587
Manz (Shanghai) Trading Company Ltd., Shanghai, PRC [1]	100,00%	-31	-103
Manz India Private Limited, New Delhi,India [1]	75,00%	161	7
Manz Chungli Ltd., Chungli, Taiwan [1]	100,00%	65.836	2.524
Manz Taiwan Ltd., Chungli, Taiwan[1] [2]	100,00%	56.928	-3.223
Manz (B.V.I.) Ltd., Road Town, British Virgin Islands [1]	100,00%	10.743	307
Intech Machines (B.V.I.) Co. Ltd., Road Town, British Virgin Islands [1]	100,00%	3.843	-2

Participations	Participation in %	Equity in thousand euros	Profit tsd. euros
NICE PV Research Ltd., Peking, PRC [1]	15,00%	130.534	-16.158
Talus Manufacturing Ltd., Cungli, Taiwan [1] [2]	80,50%	21.725	-3.250

[1] The information relates to the annual financial statements according to IFRS; values converted into euros

[2] Manz Taiwan Ltd., Chungli, Taiwan holds an 80.5 % stake in Talus Manufacturing Ltd., Chugli, Taiwan

The following changes occurred for financial assets in fiscal year 2018:

At the end of June 30, 2018, Manz China WuZhong Co. Ltd., Suzhou / PR China and Manz China Shanghai Ltd, Shanghai / PR China were liquidated. Its assets, liabilities and equity are held by Manz Asia Ltd. Hong Kong / PR China.

For the 100 % stake in Manz Italy s.r.l., a write-up of 1,566,000.00 euros was performed in fiscal year 2018.

A capital increase of EUR 1,135,480.26 was carried out for the 100% stake in Manz USA Inc. in the year under review, which increased the previous investment book value by this amount.

An exchange rate related depreciation of 10,000 euros was made on the 56 % stake in Suzhou Manz New Energy Equipment Ltd.

An unscheduled depreciation of 3,569,000 euros was made on the 15 % stake in NICE PV Research Ltd.

Inventories

Inventories include prepayments made to affiliated companies in the amount of 5,429 thousand euros (previous year: 5,708 thousand euros), as well as prepayments received from affiliated companies in the amount of 0 euros (previous year: 0 euros).

Deferred tax assets

Use was made of the optional voting right pursuant to Section 274 (1) HGB. The combined effective tax rate is 29.13 %.

	12/31/2018 tsd. euros	12/31/2017 tsd. euros
Resulting deferred tax assets capitalized net	0	0

Due to the existing loss history, deferred tax assets on loss carry forwards were only recognized in the amount that is offset against losses in the form of deferred tax liabilities.

The distribution restriction in accordance with section 268 (8) HGB is observed.

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 is about the tenant loan for 291 thousand euros (previous year: 205 thousand euros), and the unpledged asset value of 72 thousand euros (previous year: 68 thousand euros) The asset value is legally created after the balance sheet date. The customer receivables with a residual term of more than one year no longer exists (previous year: 49 thousand euros).

Receivables from affiliated companies only include trade receivables.

Assets that serve exclusively to fulfill obligations from partial retirement and are beyond the reach of all other creditors are measured at fair value. The assets are offset against the corresponding underlying obligation. If there is a surplus, it is included under the provisions. If the value of the assets exceeds the obligations, the assets are shown on the assets page.

Liquid funds

Cash and cash equivalents include cash on hand and bank balances. In the case of bank balances, there are availability restrictions due to advance payment guarantees in the amount of 19,934 thousand euros (previous year: 16,634 thousand euros).

Equity

Issued capital

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

Authorized capital

By resolution of the Annual General Meeting on July 12, 2016, the Managing Board was authorized, with Supervisory Board approval, to increase the share capital of the company by a total of up to 3,872,044.00 euros by issuing a total of 3,872,044 new bearer shares (no-par-value shares) in exchange for cash or non-cash contributions (authorized capital 2016) on one or more occasions up to July 11, 2021. In principle, the new shares must be offered to shareholders for subscription. However, the Managing Board is authorized, with the approval of the Supervisory Board, to exclude the subscription rights of the shareholders in certain cases.

Conditional Capital I

At the Annual General Meeting on July 9, 2014 , 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 150 million euros, on one or more occasions until July 8, 2019. 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 1,971,223.00 euros, in accordance with the detailed terms and conditions of the warrant/convertible bonds.

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 that is necessary in order to give owners of already issued bonds with option rights or conversion rights and/or conversion obligations a subscription right to the extent to which they would be entitled after exercising their option or conversion rights or upon fulfilling their conversion obligation. The Managing Board is also authorized, with the approval of the Supervisory Board to completely exclude shareholders' subscription rights to bonds that are issued with option and / or conversion rights or conversion obligations. Insofar as profit participation rights or participating bonds without option rights or conversion rights / obligations are issued, the Managing Board is authorized to exclude the subscription rights of shareholders with the consent of the Supervisory Board if these profit participation rights or participating bonds are similar to obligations.

The equity capital is conditionally increased by up to 1,971,223.00 euros, divided into up to 1,971,223 new bearer shares (no-par value shares) pursuant to section 3 (4) of the Articles of Incorporation of the Company (Conditional Capital I). The conditional capital increase serves to grant bearer shares of no par value to holders of option or convertible bonds, profit participation rights, or participating bonds (or combinations of these instruments) with options or conversion rights or conversion obligations issued on the basis of the aforementioned authorization. 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.

Conditional Capital II

The Annual General Meeting on 7 July, 2015, approved the authorization to grant subscription rights in accordance with the Manz Performance Share Plan 2015.
The Managing Board was authorized, with the approval of the Supervisory Board, until June 30, 2020, once or several times to grant a total of up to 59,000 subscription rights to acquire up to 118,000 shares of the company to executives of affiliated companies, managers of the company below the Managing Board level, and managers of affiliated companies, both at home and abroad.

The Supervisory Board was authorized to grant one or several times a total of up to 56,000 subscription rights for the purchase of up to 112,000 shares in the company to members of the company's Managing Board until June 30, 2020. The granting, structuring, and exercising of the subscription rights takes place in accordance with the provisions laid down in the resolution of the Annual General Meeting on July 7, 2015.
The share capital is conditionally increased by up to 230,000.00 euros by issuing up to 230,000 no-par-value bearer shares pursuant to section 3 (5) of the Articles of Incorporation of the company (Contingent Capital II). The conditional capital increase serves to secure the rights of the holders of subscription rights granted on the basis of the aforementioned authorization.
The number of subscription rights issued as of the balance sheet date in relation to Conditional Capital II amounts to 80.480 euros (previous year: 58,552 euros).

Conditional Capital IV

The Annual General Meeting on June 19, 2012 approved the authorization to grant subscription rights under the Manz Performance Share Plan 2012. The authorisations were cancelled by resolution of the Annual General Meeting on 7 July 2015 to the extent that no subscription rights had yet been issued on the basis of the authorisation.

In accordance with section 3 (7) of the of the Articles of Incorporation of the company, the share capital is conditionally increased by up to EUR 256,000.00 by issuing up to 256,000 no-par value bearer shares (Conditional Capital IV). The conditional capital increase serves to secure the rights of the holders of subscription rights granted on the basis of the aforementioned authorization.

The number of subscription rights issued in relation to Conditional Capital IV at the balance sheet date amounts to 5,194 (previous year: 5,194).

Capital reserves

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

Within the context of 20 million euros (previous year: 45 million euros) were withdrawn from capital reserves and used to balance out net losses.

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

Accumulated loss

	Euros
Loss carried forward Monday, January 1, 2018	-4.752.842,50
Loss for the year 2018	-21.095.147,97
Allocation from the capital reserves	20.000.000,00
Net loss 2018	-5.847.990,47

Treasury Shares
By resolution of the Annual General Meeting on July 7, 2015, the company was authorized in accordance with section 71 (1) No. 8 AktG to acquire treasury shares with a notional value of up to 10 % of the share capital until the date of the July 6, 2020, Annual General Meeting.
The company acquired 2,522 shares in fiscal year 2018 (previous year: 251 shares) at an average price of 32.41 euros (previous year: 34.32 euros) per share with a market value of 82 thousand euros (previous year: 9 thousand euros). The company purchased its own shares for servicing employee profit sharing and for employee anniversaries. As of Monday, December 31, 2018, 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 reserves of the former Manz Tübingen GmbH resulted in an under-funding of 768 thousand euros 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 15 years. In the year under review, 51 thousand euros were transferred to pension reserves through profit or loss. As of Monday, December 31, 2018, the undervaluation amount of 154 thousand euros 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 72 thousand euros is recognized under other assets for this.
The pension reserve amounts to 3,014 thousand euros on the reporting date.

In fiscal year 2018, the pension reserves 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 resulting difference is subject to a distribution hold.

	Euros
Value of obligation as of December 31, 2018 determined at the average market interest rate of the past seven fiscal years	3.350.567,00
The obligation value as of December 31, 2018 is calculated using the average discount rate for pension obligations.	3.024.992,00
Difference according to Section 253 (6) Sentence 1 HGB as against December 31, 2018	325.575,00

In contrast to the previous year, the Heubeck 2018 G mortality tables were used for the first time to measure pension provisions in the 2018 financial statements. The change in the biometric assumptions resulted in a difference of EUR 34 thousand which was recognised under personnel expenses.

The **other provisions** mainly relate to provisions from earn-out obligations amounting to 3,106 thousand euros (previous year: 3,422 thousand euros), personnel provisions of 1,776 thousand euros (previous year: 1,873 thousand euros), warranties of 1,428 thousand euros (previous year: 1,071 thousand euros), as well as outstanding invoices of 565 thousand euros (previous year: 4,720 thousand euros)

Other reserves include partial retirement obligations of 139 thousand euros (previous year: 352 thousand euros). Here, the pledged assets to safeguard the claims from the partial retirement model in the amount of 74 thousand euros are offset against the reserves for partial retirement obligations. The fair value of the offset asset amounts to 74 thousand euros and corresponds to the acquisition costs. The calculated expenses amount to 3 thousand euros and the offset income amounts to 3 thousand euros.

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

	31.12.2018 euro	up to 1 year euro	over one year euro	> 5 years euro
Advance payments received on orders	130.583.973,24	27.694.103,45	102.889.869,79	0,00
Previous year	*74.296.731,78*	*74.296.731,78*	*0,00*	*0,00*
Liabilities from goods and services	9.306.435,26	9.306.435,26	0,00	0,00
Previous year	*5.891.562,31*	*5.891.562,31*	*0,00*	*0,00*
Liabilities to affiliated companies	9.599.900,73	9.599.900,73	0,00	0,00
Previous year	*5.484.993,84*	*5.484.993,84*	*0,00*	*0,00*
Other liabilities	598.557,13	598.557,13	0,00	0,00
Previous year	*589.672,57*	*589.672,57*	*0,00*	*0,00*
	150.088.866,36	47.198.996,57	102.889.869,79	0,00
Previous year	*86.262.960,50*	*86.262.960,50*	*0,00*	*0,00*

Liabilities to affiliated companies in the amount of 9,600 thousand euros. (previous year: 5,485 thousand euros) resulted solely from trade in goods and services.

Contingent liabilities

As of balance sheet date, Manz AG guarantees for bank liabilities of subsidiaries amounting to 8,000 thousand euros and for third parties amounting to 700 thousand euros. The bank liabilities of the subsidiaries as of the reporting date are valued at 9.899 thousand euros and bank liabilities from third parties at 78 thousand euros.

In addition, liability obligations exist for commitments of NICE Solar Energy GmbH, Schwäbisch Hall (formerly Manz CIGS Technology GmbH, Schwäbisch Hall) in the amount of a total of 5,600 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. In detail, the bank liabilities of third parties were reduced in the past from EUR 700 thousand to a remaining liability of EUR 78 thousand, which will be repaid in full in 2019 in accordance with the existing financial circumstances and will lead to the loss of the guarantee at Manz AG at the end of 2019. According to the currently available budget 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 24,148 thousand euros previous year: 28,494 thousand euros). The rental and leasing contracts end between 2019 and 2028.
The deposit not yet called in for the Suzhou Manz New Energy Equipment Co., Ltd. amounts to 12.6 million CNY (equivalent to 1.6 million euros as of December 31, 2018) and is due in 2019.

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:

		Balance sheet disclosure
		tsd. euros
Capitalization of internally generated intangible assets		17.022
	Previous year	*15.085*
Total amount blocked against distribution in the sense of Section 268 (8) HGB		17.022
	Previous year	*15.085*

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

	2018 TEUR	2017 TEUR
Capital reserves acc. section 272 (2) No. 4 HGB	88.295	108.295
Other revenue reserves	1.471	1.471
Loss carried forward from previous year	-4.753	-5.355
Net loss for the fiscal year	-21.095	-44.398
Allocation from capital reserves	20.000	45.000
Equity portions available for cover	83.918	105.013

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:

	2018 tsd. euros	2017 tsd. euros
By business segment		
Electronics	8.457	26.231
Solar	3.250	3.998
Energy Storage	16.957	2.917
Service	4.286	4.085
Contract Manufacturing	1.841	608
Sales with affiliated companies	3.015	3.678
	37.806	41.517

By region		
Domestic or Germany	7.840	17.868
Other EU countries	7.872	5.562
China	14.287	4.527
Taiwan	1.286	1.258
USA	6.242	9.786
Other countries	279	2.516
	37.806	41.517

Increase or decrease in the stock of finished and unfinished products

These items include a devaluation of unfinished products totaling 371 thousand euros (previous year: 5,404 thousand euros) as extraordinary positions.

Other operating income

This essentially relates to gains from the write-up on financial assets greater than 1,566 thousand euros. (previous year: 4,233 euros) that are considered extraordinary.
Furthermore prior-period income from the liquidation of other reserves in the amount of 1,116 thousand euros (previous year: 362 thousand euros) and from the reduction of the allowance for receivables of 330 thousand euros (previous year: 103 euros). Income from exchange rate differences amounted to 196 thousand euros (previous year: 159 thousand euros).

Other operating expenses

Other operating expenses include expenses in the amount of 51 thousand euros (previous year: 51 thousand euros). These are expenses pursuant to Art. 67 (1) sentence 1 HGHGB (increase in the pension provision) and non-periodic expenses in the amount of 100 thousand euros.

Depreciation on financial assets and securities held as current assets

Depreciations on financial assets include a write-down of the Suzhou Manz New Energy Equipment Ltd. share of 10 thousand euros and an exchange rate depreciation of the other NICE PV Research ltd. share in the amount of 3,569 thousand euros.

Other information

Members of the Managing Board

Eckhard Hörner-Marass, Dipl. Ing. (FH), Langweid, Managing Board Chairman (until September 28, 2018),
Gunnar Voss von Dahlen, Dipl. Merchant, Frankfurt am Main, Chief Financial Officer (up to March 23, 2018)
Martin Drasch, Dipl. Ing. (FH), Ehningen - COO - (from September 29, 2018),
former Chief Operations Officer (up to September 28, 2018).
Manfred Hochleitner, Dipl.-Math., Munich, Chief Financial Officer (from 1 July, 2018)

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.

Prof. Dr.-Eng. Michael Powalla, Managing Director of Photovoltaics and member of the executive 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, Deputy Chairman of the Supervisory Board.

Dieter Manz, Dipl. Ing. (FH), Managing Director of Manz GmbH Management Consulting and Investment, Schlaitdorf, Deputy Chairman of the Supervisory Board (from Juli 4, 2018)

Dr. Zhiming Xu, Chief Technical Officer of Shanghai Electric Group of Shanghai Electric Group Company Ltd, Shanghai, PRC, and Managing Director of Shanghai Electric Germany Holding GmbH, Frankfurt, Member of the Supervisory Board of Suzhou Manz New Energy Equipment Co., Ltd. , Suzhou PR China.

The Chairman of the Supervisory Board Prof. Dr. Heiko Aurenz is also Chairman of the Supervisory Board of MAG IAS GmbH, Eislingen; Chairman of the Supervisory Board of FFG Werke GmbH, Eislingen; Chairman of the Supervisory Board of Know How! Corporation for Continuing Education, Leinfelden-Echterdingen; Member of the Supervisory Board for Anna-Haag- Mehrgenerationenhaus e.V., Stuttgart; Member of the Supervisory Board for Anna Haag Stiftung gGmbH, Stuttgart; Member of the Supervisory Board for TanDiEM gGmbH, Stuttgart, Chairman of the Advisory Board of Monument Portfolio Management GmbH, Stuttgart; Chairman of the Advisory board of Andreas Lupold Hydrotechnik GmbH, Vöhringen and member of the Foundation Board of the Stiftung Aufbruch and Chance, Stuttgart.

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

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

Supervisory Board member Dr. Zhiming Xu is a member of the Board of Supervisors of NICE PV Research Ltd., Beijing (PRC) and member of the Advisory Board of Broetje-Automation GmbH, Rastede.

Compensation of the Managing Board

The fundamentals of the compensation system and the amount of the compensation of the Managing Board and Supervisory Board, as well as the former members of the Managing Board, are shown in the compensation report, which is part of the management report.

The total compensation of the Managing Board for fiscal year 2018 amounts to 1,060 thousand euros (previous year: 2,121 thousand euros) The non-performance-related benefits amount to 845 thousand euros (previous year: 1,205 thousand euros). The performance-related benefits are in total 215 thousand euros (previous year: 538 thousand euros) of which 102 thousand euros (previous year: 438 thousand euros) are long-term benefits. Long-term benefits are stock awards / subscription rights under the performance share plan. In the year under review, a total of 6,048 (previous year: (previous year: 4,544) subscription rights were granted to members of the Managing Board, with a corresponding fair value of 102 thousand euros (previous year: 436 thousand euros), as well as a performance share bonus with a fair value of 0 thousand euros (previous year: 2 thousand euros). 113 thousand euros of the performance-related benefits relate to the cash bonuses agreed for the 2018 financial year.

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

Managing Board member Manfred Hochleitner has a defined contribution plan. In fiscal year 2018, for this purpose, 5 thousand euros were paid into an externally re-insured provident fund.

Compensation of former members of the Managing Board

Eckhard Hörner-Marass retired from the Managing Board on September 30, 2018 and his employment contract ended on December 31, 2018. In addition to the total compensation reported as an active member of the Managing Board for the 2018 financial year, he continued to receive compensation for the months October to December 2018 in the amount of 120 thousand euros and a pro rata bonus for the months October to December 2018 in the amount of 37.5 thousand euros. The total compensation for the financial year amounts to 631 thousand euros.

Gunnar Voss von Dahlen resigned from the Managing Board on March 28, 2018 and his employment contract ended on the same date. In addition to the total compensation reported as an active member of the Managing Board for fiscal 2018, he received a severance payment of 250 thousand euros in accordance with the severance payment cap. In addition, there was a defined contribution plan. In fiscal 2018, 3 thousand euros (previous year: 7 thousand euros) was paid into an external reinsured provident fund for this purpose. The total compensation for the financial year amounts to 316 thousand euros.

Former Managing Board member Otto Angerhofer received a pension payment of 10 thousand euros during fiscal year 2018 (previous year: 10 thousand euros). There is a pension obligation to the former Managing Board member amounting to 143 thousand euros (previous year: 140 thousand euros).

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 2018 fiscal year, compensation was paid to members of the Supervisory Board totaling 142 thousand euros (previous year: 57 thousand euros). The Supervisory Board's compensation consists of a fixed component of 104 thousand euros and expense allowances of 38 thousand euros in the year under review. Only a fixed remuneration component was available in the previous year.

Employees

The number of (full-time) employees during the financial year 2018 averaged 410 (previous year: 418), excluding Board members. There were 145 (previous year: 146) employees in production and 265 (previous year: 272) employees in the commercial/technical areas. The annual average was 39 (previous year: 38) trainees employed. In total, 412 people were employed at Manz AG in fiscal year 2018.

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 leasing arise from the leasing rates 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 prevailing market terms that 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 clause 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 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.

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

The following notifications pursuant to the Securities Trading Act (WpHG) were communicated in fiscal year 2018:

Friday, April 6, 2018

Reportable securities transactions (Directors' dealings)

1. Information about persons performing managerial duties and persons closely related to them

a) Name

Title:	
Given name:	Eckhard
Surname(s):	Hörner-Marass

2. Reason for report

a) Position / Status

Position:	Managing Board

b) Initial report

3. Information about the issuer, the participant in the market for emission certificates, the auction platform, the auctioneer, or the auction supervision

a) Name

Manz AG

b) LAW

529900B635NV0KEEOR57

4. Details of the business / businesses

a) Description of the financial instrument, type of instrument, identifier

Product:	Share
ISIN:	DE000A0JQ5U3

b) Type of business

Purchase

c) Price(s) and Volume

Price(s)	Volume
32.80 euro	50020.00 euro

d) Aggregate information

Price	Aggregate volume
32.80 euro	50020.00 euro

e) Business date

4/4/2018; UTC+2

f) Business location

Name:	Tradegate
MIC:	TGAT

Wednesday, June 13, 2018

Reportable securities transactions (Directors' dealings)

1. Information about persons performing managerial duties and persons closely related to them

a) Name

Title:	
Given name:	Dieter
Surname(s):	Manz

2. Reason for report

a) Position / Status

Position:	Supervisory Board

b) Initial report

3. Information about the issuer, the participant in the market for emission certificates, the auction platform, the auctioneer, or the auction supervision

a) Name

Manz AG

b) LAW

529900B635NV0KEEOR57

4. Details of the business / businesses

a) Description of the financial instrument, type of instrument, identifier

Product:	Share
ISIN:	DE000A0JQ5U3

b) Type of business

Purchase

c) Price(s) and Volume

Price(s)	Volume
37.50 euro	1,285,687.50 euro

d) Aggregate information

Price	Aggregate volume
37.50 euro	1,285,687.50 euro

e) Business date

6/12/2018; UTC+2

f) Business location

Outside of a trading centre

Friday, August 31, 2018

Reportable securities transactions (Directors' dealings)

1. Information about persons performing managerial duties and persons closely related to them

a) Name

Title:	
Given name:	Dieter
Surname(s):	Manz

2. Reason for report

a) Position / Status

Position:	Supervisory Board

b) Initial report

3. Information about the issuer, the participant in the market for emission certificates, the auction platform, the auctioneer, or the auction supervision

a) Name

Manz AG

b) LAW

529900B635NV0KEEOR57

4. Details of the business / businesses

a) Description of the financial instrument, type of instrument, identifier

Product:	Share
ISIN:	DE000A0JQ5U3

b) Type of business

Grant of 990,043 share donation

c) Price(s) and Volume

Price(s)	Volume
0 euro	0 euro

d) Aggregate information

Price	Aggregate volume
0 euro	0 euro

e) Business date

8/28/2018; UTC+2

f) Business location

Outside of a trading centre

Friday, August 31, 2018

Reportable securities transactions (Directors' dealings)

1. Information about persons performing managerial duties and persons closely related to them

a) Name

Title:	
Given name:	Ulrike
Surname(s):	Manz

2. Reason for report

a) Position / Status

Person is closely related to:	
Title:	
Given name:	Dieter
Surname(s):	Manz
Position:	Supervisory Board

b) Initial report

3. Information about the issuer, the participant in the market for emission certificates, the auction platform, the auctioneer, or the auction supervision

a) Name

Manz AG

b) LAW

529900B635NV0KEEOR57

4. Details of the business / businesses

a) Description of the financial instrument, type of instrument, identifier

Product:	Share
ISIN:	DE000A0JQ5U3

b) Type of business

Acceptance of 215,635 share donation

c) Price(s) and Volume

Price(s)	Volume
0 euro	0 euro

d) Aggregate information

Price	Aggregate volume
0 euro	0 euro

e) Business date

8/28/2018; UTC+2

f) Business location

Outside of a trading centre

12/27/2018

Reportable securities transactions (Directors' dealings)

**1. Information about the persons who
To perform management tasks, as well as to the
in close relation to them
Persons**

a) Name

Title:	Prof. Dr.
Given name:	Heiko
Surname(s):	Aurenz

2. Reason for report

a) Position / Status

Position:	Supervisory Board

b) Initial report

3. Information about the issuer, the participant in the market for emission certificates, the auction platform, the auctioneer, or the auction supervision

a) Name

Manz AG

b) LAW

529900B635NV0KEEOR57

4. Details of the business / businesses

a) Description of the financial instrument, type of instrument, identifier

Product:	Share
ISIN:	DE000A0JQ5U3

b) Type of business

Purchase

c) Price(s) and Volume

Price(s)	Volume
19.90 euro	49949.00 euro

d) Aggregate information

Price	Aggregate volume
19.90 euro	49949.00 euro

Wednesday, June 13, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG
Steigäckerstr. 5
72768 Reutlingen
Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Mr. Dieter Manz Birthday: 25th of November 1961	

4. Shareholder's names

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

5. Date on which contact with limit occurred:

6/12/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
New	25.10 %	0 %	25.10 %	7744088
Last communication	24.66 %	0 %	24.66 %	/

7. Voting rights details

a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3	1943985	0	25.10 %	0 %
Total	1943985		25.10 %	

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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).
	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Friday, June 29, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Universal investment limited liability company	Frankfurt am Main Germany

4. Shareholder's names

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

5. Date on which contact with limit occurred:

6/27/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
New	3.00 %	0.00 %	3.00 %	7744088
Last communication	2.89 %	n/a %	2.89 %	/

7. Voting rights details

a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3		232491	(in %)	3.00 %
Total	232491		3.00 %	

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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

	The notifying party (3.) is neither controlled by nor controls notifying parties of other companies with reportable voting rights of the issuer (1.).
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
Universal investment limited liability company	(in %)	(in %)	(in %)

Universal-Investment-Luxembourg S.A.	(in %)	(in %)	(in %)

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

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

10. Other notes:

Monday, August 6, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG
Steigäckerstr. 5
72768 Reutlingen
Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Oppenheimer Funds, Inc.	Denver, Colorado United States of America

4. Shareholder's names
With 3 % or more voting rights, if different from 3.

Oppenheimer Global Opportunities Fund

5. Date on which contact with limit occurred:

7/27/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
New	3.07 %	0.00 %	3.07 %	7744088
Last communication	n/a %	n/a %	n/a %	/

7. Voting rights details

a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct	Attributed	direct	Attributed
	(section 33 WpHG)	(Section 34 WpHG)	(Section 33 WpHG)	(Section 34 WpHG)
DE000A0JQ5U3		237614	(in %)	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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).

	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Monday, August 6, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Oppenheimer Global Opportunities Fund	Wilmington, Delaware United States of America

4. Shareholder's names

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

5. Date on which contact with limit occurred:

7/27/2018

6. Total voting rights shares

	Voting rights share	Instruments share	Total shares	Total number of voting rights of the issuer
	(Total 7.a.)	(Total 7.b.1.+ 7.b.2.)	(Total 7.a. + 7.b.)	
New	3.07 %	0.00 %	3.07 %	7744088
Last communication	n/a %	n/a %	n/a %	/

7. Voting rights details

a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3	237614		3.07 %	(in %)
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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).
	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Tuesday, August 14, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Universal investment limited liability company	Frankfurt am Main Germany

4. Shareholder's names
With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

8/9/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
New	2.98 %	0.00 %	2.98 %	7744088
Last communication	3.00 %	0.00 %	3.00 %	/

7. Voting rights details
a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3		230491	(in %)	2.98 %
Total	230491		2.98 %	

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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

	The notifying party (3.) is neither controlled by nor controls notifying parties of other companies with reportable voting rights of the issuer (1.).
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
Universal investment limited liability company	(in %)	(in %)	(in %)
Universal-Investment-Luxembourg S.A	(in %)	(in %)	(in %)

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

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

10. Other notes:

Friday, August 31, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG
Steigäckerstr. 5
72768 Reutlingen
Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Mrs. Laura Manz, Birthday: 3th of July 1990	

4. Shareholder's names

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

5. Date on which contact with limit occurred:

8/28/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
new	5.16 %	0 %	5.16 %	7744088
Last communication	n/a %	n/a %	n/a %	/

7. Voting rights details

a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct	Attributed	direct	Attributed
	(section 33 WpHG)	(Section 34 WpHG)	(Section 33 WpHG)	(Section 34 WpHG)

DE000A0JQ5U3	399879		5.16 %	(in %)
Total	399879		5.16 %	

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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).
	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Friday, August 31, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Mr. Stephan Manz, Birthday: 15th of August 1988	

4. Shareholder's names
With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

8/28/2018

6. Total voting rights shares

	Voting rights share	Instruments share	Total shares	Total number of voting rights of the issuer
	(Total 7.a.)	(Total 7.b.1.+ 7.b.2.)	(Total 7.a. + 7.b.)	
new	5.16 %	0 %	5.16 %	7744088
Last communication	n/a %	n/a %	n/a %	/

7. Voting rights details

a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3	399889		5.16 %	(in %)
Total	399889		5.16 %	

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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).
	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Friday, August 31, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Mrs. Ulrike Manz, Birthday: 28th of August 1963	

4. Shareholder's names
With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

8/28/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
new	5.44 %	0 %	5.44 %	7744088
Last communication	2.66 %	0 %	2.66 %	/

7. Voting rights details
a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3	421489		5.44 %	(in %)
Total	421489		5.44 %	

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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).

	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Friday, August 31, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Germany

2. Reason for the communication

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

	Voluntary communication because of internal family reorganization of shareholdings

3. Information about the notifying party

Name:	Registered headquarters and country:
Mr. Dieter Manz Birthday: 25th of November 1961	

4. Shareholder's names

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

Ulrike Manz; Stephan Manz; Laura Manz

5. Date on which contact with limit occurred:

8/28/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
new	28.09 %	0 %	28.09 %	7744088
Last communication	25.10 %	0 %	25.10 %	/

7. Voting rights details

a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3	953942	1221257	12.32 %	15.77 %
Total	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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).
	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Monday, September 24, 2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
OppenheimerFunds, Inc.	Denver, Colorado United States of America

4. Shareholder's names

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

Oppenheimer Global Opportunities Fund

5. Date on which contact with limit occurred:

9/18/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
new	5.31 %	0.00 %	5.31 %	7744088
Last communication	3.07 %	0.00 %	3.07 %	/

7. Voting rights details

a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3		411264	(in %)	5.31 %

Total	411264	5.31 %

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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).
	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Monday, September 24,
2018

Notification of voting rights according to Section 40 WpHG

1. Information concerning the issuer

Manz AG Steigäckerstr. 5 72768 Reutlingen Germany

2. Reason for the communication

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

3. Information about the notifying party

Name:	Registered headquarters and country:
Oppenheimer Global Opportunities Fund	Wilmington, Delaware United States of America

4. Shareholder's names
With 3 % or more voting rights, if different from 3.

5. Date on which contact with limit occurred:

9/18/2018

6. Total voting rights shares

	Voting rights share (Total 7.a.)	Instruments share (Total 7.b.1.+ 7.b.2.)	Total shares (Total 7.a. + 7.b.)	Total number of voting rights of the issuer
new	5.31 %	0.00 %	5.31 %	7744088
Last communication	3.07 %	0.00 %	3.07 %	/

7. Voting rights details
a. Voting rights (sections 33, 34 WpHG)

ISIN	Absolute		in %	
	Direct (section 33 WpHG)	Attributed (Section 34 WpHG)	direct (Section 33 WpHG)	Attributed (Section 34 WpHG)
DE000A0JQ5U3	411264		5.31 %	(in %)
Total	411264		5.31 %	

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 %
				(in %)
		Total		(in %)

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 %
					(in %)
			Total		(in %)

8. Information relating to the notifying party

X	The entity required to report (3.) is not controlled, nor does it control other companies with voting rights of the issuer that are relevant for reporting purposes (1.).

	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 34 (3) WpHG
(only possible with an attribution according to section 34 (1)(1) No. 6 WpHG)

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

10. Other notes:

Proposed appropriation of profit

The annual financial statement of Manz AG as of Monday, December 31, 2018, closed with a net loss of 5,847,990.47 euros (previous year: 4,752,842.50 euros). The Managing Board recommends that this net loss be carried forward to a new account.

Reutlingen, March 21, 2019

Manz AG

Martin Drasch
Chief Executive Officer

Manfred Hochleitner

MANZ AG, REUTLINGEN

DEVELOPMENT OF FIXED ASSETS IN FISCAL YEAR 2018

	ACQUISITION AND MANUFACTURING COSTS					Accumulated Depreciation			
	Jan. 1, 2018 EUR	Additions EUR	Repostings EUR	Disposals EUR	Dec. 31, 2018 EUR	Jan. 1, 2018 EUR	Additions EUR	Disposals EUR	Attr
INTANGIBLE ASSETS									
Internally generated industrial property rights and similar rights and assets	45,133,245.54	4,517,271.42	0.00	0.00	49,650,516.96	30,048,318.96	2,580,694.50	0.00	
Concessions, industrial property rights and similar right and assets, and licenses for such rights and assets, purchased against payment	12,033,561.92	114,493.35	0.00	5,378.04	12,142,677.23	11,445,897.04	262,528.86	5,378.04	
	57,166,807.46	4,631,764.77	0.00	5,378.04	61,793,194.19	41,494,216.00	2,843,223.36	5,378.04	
FIXED ASSETS									
Land, similar land rights and buildings, including buildings on third-party land	1,520,834.05	16,166.00	0.00	0.00	1,537,000.05	1,135,031.05	72,851.00	0.00	
Technical equipment and machinery	16,480,468.91	757,602.30	0.00	344.35	17,237,726.86	15,067,163.91	400,361.30	344.35	
Other equipment, operating and office and office equipment	7,659,364.67	224,900.80	0.00	141,763.02	7,742,502.45	6,831,186.67	323,597.80	136,010.02	
	25,660,667.63	998,669.10	0.00	142,107.37	26,517,229.36	23,033,381.63	796,810.10	136,354.37	
FINANCIAL ASSETS									
Shares held in afilliated companies	50,682,674.86	1,135,480.26	0.00	0.00	51,818,155.12	1,582,000.00	10,000.00	0.00	
Loans to affiliated companies	6,593,093.68	0.00	0.00	860,036.23	5,733,057.45	50,078.78	0.00	22,934.11	
Participations									
Participations in joint-stock companies	24,245,265.11	0.00	0.00	0.00	24,245,265.11	670,000.00	3,569,000.00	0.00	
	81,521,033.65	1,135,480.26	0.00	860,036.23	81,796,477.68	2,302,078.78	3,579,000.00	22,934.11	
	164,348,508.74	6,765,914.13	0.00	1,007,521.64	170,106,901.23	66,829,676.41	7,219,033.46	164,666.52	

Manz AG, Reutlingen

Management Report for the 2018 Fiscal Year

1. Business Report

1.1 Company Situation

1.1.1 Corporate structure and shareholdings

Founded in 1987, Manz AG is a global high-tech equipment manufacturing company. Its business activities consist of five segments: Solar, Electronics, Energy Storage, Contract Manufacturing, and Service. With many years of expertise in automation, laser processing, vision and metrology, wet chemistry, and roll-to-roll processes, the company offers manufacturers and their suppliers in various industries a broad portfolio of innovative products and solutions. In addition to customized production solutions, this also includes standardized individual machines and modules that can be intelligently linked together to form complete, individual system solutions. The company also offers a comprehensive range of services around Manz AG's core technological competencies: From simulation and factory planning to process and prototype development, customer training, and after-sales service. Manz AG is a sought-after development partner for industry and, as such, a trailblazer for future technologies.

On the reporting date, Manz AG, as the Group's parent company, held a 100 % stake in five international subsidiaries and one subsidiary. This was a company based in Hungary, Italy, the USA, Slovakia and Hong Kong. In addition, the company has a 100 % stake in two second-tier subsidiaries in China and two in Taiwan. A 75 % second-tier subsidiary exists in India. Manz AG also has a 100 % stake in two third-tier subsidiaries in the British Virgin Islands. Manz AG holds a 56 % stake in the Suzhou Manz New Energy Equipment Co., Ltd. subsidiary with headquarters in China, and the second-tier subsidiary in Taiwan holds an 80.5 % stake in Talus Manufacturing Ltd., which was founded together with a semiconductor manufacturer based in Taiwan. In 2018, two Chinese wholly owned second-tier subsidiaries, Manz China WuZhong Co. Ltd. in Suzhou and the Manz China Shanghai Ltd. (Shanghai) in Shanghai, were 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, particularly in the solar, consumer electronics, displays and printed circuit board, automatic and energy storage sectors. 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 USA. Manz AG has long-standing customer relationships and a strong presence, particularly in Asia, which is a key region for the company's target industries: around 800 employees at its locations in Taiwan, and China offer excellent access to this growth market. This enables Manz AG to offer its products and services at locally competitive costs.
Manz AG's business model offers a sustainable increase in competitiveness combined with profit-oriented growth. The strategic cooperation in the solar sector with Shanghai Electric Group and China Energy Investment Corporation Limited (formerly Shenhua Group) ensures stability. With a strong focus on the development, production and marketing of modules and fully linked, individual system solutions and equipment, as well as the expansion of the worldwide customer base, we increase our competitiveness and profitability. The cross-regional use of technology expertise and its standardization beyond industry boundaries significantly reduces development effort and time and continuously creates new unique selling points. Additional growth opportunities arise from individual development projects for customer-specific pilot lines.

1.1.3 Control System and Performance Indicators

Manz AG is organized for the purpose of corporate management by product and service segments at Group level 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 detailed reports and regular 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 the Financial Management

Control variables for corporate development at Manz AG are the performance indicators revenue, earnings before interest and taxes (EBIT), as well earnings before interest, taxes, depreciation, and amortization (EBITDA). Further performance indicators are the equity rate and liquidity. The Manz AG control system has not changed, relative to the previous year.

In the long term, the Managing Board has defined the following target values:

- Revenue: an annual average revenue increase between 10 % and 20 % is announced.
- EBIT margin: after application of IFRS 16 as of 2019, a target margin of 10 % is defined for the EBIT margin.

- EBITDA margin: a target of more than 15 % is defined for the EBITDA margin after the application of IFRS 16 as of 2019.
- Equity ratio: the target corridor for shareholders' equity as a percentage of total assets is between 40 % and 60 %.
- Gearing: Manz AG has defined gearing as a ratio of net liabilities to equity before minority interests of less than 50 % as a target.

In the 2018 financial year, sales and the equity ratio developed in line with the defined target corridor. The EBITDA margin and EBIT margin are characterized by the negative one-off effect resulting from a cable fire at the locations of Manz Taiwan Ltd. and Talus Manufacturing Ltd. in Taiwan. The gearing value has deteriorated compared to the previous year mainly due to the increase in financial liabilities, but remains within the defined target range.

At Manz AG, the gearing performance indicator moved in line with the target and improved slightly compared with 2017. In 2018, the revenue performance indicator declined compared with the previous year. EBIT and EBITDA margin did not develop positively in the fiscal year as in 2017. Accordingly, the equity ratio fell below the defined target corridor.

Performance indicators

	Group (IFRS)		Manz AG (HGB)	
in %	2018	2017 [1)]	2018	2017
Revenue (in Mio. EUR)	296,9	266,1	37,8	41,5
EBITDA margin	3,2	3,8	n/a	n/a
EBIT margin	n/a	0,2	n/a	n/a
equity ratio	43,4	48,0	35,6	51,4
Gearing	-3,7	-20,2	-0,69	-0,44

1) Adjustment after restatement due to deconsolidation of a company

Manz AG's financial management system is centrally organized. To minimize risks and leverage Group-wide optimization potential, the company bundles decisions on financing, cash investments and currency hedges 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 fiscal year 2018 for Manz, a high-tech equipment manufacturer. With its more than 500 engineers, technicians and scientists at its development sites, Manz AG focuses on the development of efficient and innovative manufacturing, assembly and handling technologies, integrated in modularized individual machines, facilities, and linked system solutions. The Manz AG comprehensive "R & D Council" achieves internal cross-segment integration of competencies. This leads to the realization of synergy and economies of scale as well as the development of additional revenue potential.

Manz maintains numerous cooperative arrangements with well-known research institutions, universities, and colleges. The Center for Solar Energy and Hydrogen Research Baden-Württemberg (ZSW) is Manz AG's cooperation and development partner of many years. ZSW in Stuttgart, among others, conducts photovoltaic materials research and development for thin-film technologies and supports Manz in the further development of CIGS technology in the context of strategic cooperation with Shanghai Electric Group and China Energy Investment Corporation Limited. Development activities for CIGS thin-film solar technology were significantly intensified at the beginning of 2017 through cooperation with the Chinese partners as well as the participation in the research and development company NICE PV Research Ltd. The aim is to accelerate the further development of CIGS technology and thus to increase the potential it offers for further increases in efficiency and for reducing manufacturing costs. In addition to the existing innovation line for CIGS thin-film solar module in Schwäbisch Hall, another research line with a capacity of 44 MW will be built in Beijing by the end of the year.

ZSW is also one of 19 partners that joined forces with Manz AG within the lithium-ion batteries (KLiB) competence network at the end of 2017 to form a consortium, and the research and development of processes for one large-scale production of lithium-ion battery cells began at the beginning of 2018 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 18-month project is funded by the Federal Government with around 12 million euros. 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 offers the innovative basis to completely plan a German battery cell production for mass production and to realize a cell production in a timely and cost-effective manner. 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. The "EU Battery Alliance" is working to close the gap for Europe regarding battery cells for the automotive industry as well as other industries, areas where Asian manufacturers are leading the way. For this purpose, an EU funding volume of one billion euros over 10 years is up for debate and the possibility to promote national production projects in Europe.

Investments in R&D amounted to 9.1 million euros in 2018 (previous year: 11.2 million euros).
The R&D ratio relative to the sharp increase in total output from the previous year was 6.7 % (previous year: 19.3 %). Excluding the capitalized development costs, research costs amounted to 3.4 % (previous year: 13.7 %).

The company will also continue to place a clear emphasis on R&D activities in future. In order to provide sustained and long-term consolidation of its good technological positioning in the relevant target markets and its innovativeness, Manz AG is striving for a continued high ratio of R&D to sales of 5 -10 % for 2019.

1.1.5 Employees

Qualified and motivated employees provide the basis of Manz AG's long-term success. As of, December 31, 2018, Manz AG employed an average of 410 employees (previous year: 418) and 39 trainees (previous year: 38).

1.2 General Conditions

1.2.1 Market and Competitive Environment

1.2.1.1 Economic Environment

Economic sentiment darkened significantly in the course of 2018. According to the Kiel Institute for the World Economy (IfW), the expansion of the global economy was at 3.7 %, as in the previous year. The more restrictive monetary policy in the USA and the growing trade conflicts worldwide had a growth-inhibiting effect. According to information from the IfW, the economy in the USA itself continued to grow at 2.9 % compared to 2017 (2.2 %). By contrast, the European economy was weaker with growth of 1.9 % (previous year: 2.5 %). The economic upswing in Germany also lost momentum, with growth of 1.5 % in 2018 (previous year: 2.2 %). According to Ifw, the Chinese economy grew by 6.6 % in 2018, slightly less than in 2017 (6.8 %).

1.2.1.2 Mechanical Engineering Industry

The Mechanical Engineering Industry Association (VDMA) expects global sales growth of 3 % for 2018 According to association numbers, the most significant change compared to the previous year was seen in China: accordingly, the sector in China recorded growth of 2 % in 2018, after development had declined by -2 % in 2017. In Germany, mechanical engineering companies grew by 5 %, slightly above the previous year's 4.9 %. According to the VDMA, the German engineering companies for assembly solutions posted an above-average performance of 9.2 % for the industry and were therefore noticeably above the previous year's figure of 8.6 %. However, a mood dampener for the mechanical engineering sector in

Germany came at the end of 2018: Whereas incoming orders between January and November were still up 5.9 % on the same period of the previous year, the increase in November alone amounted to only 0.3 %.

1.2.1.3 Industries of the Core Segments

Although the business climate in the photovoltaic sector remained positive in the last VDMA survey in September 2018, expectations for revenue growth of 4.2 % in 2018 were well below the 9.2 % reported in March. There was little change in the key target markets of the industries. Asia accounted for 77 % revenue share (March 2018: 73 %) ahead of North America at 11 % (March 2018: 11 %) and Europe at 9 % (March 2018: 5 %). IHS Markit expected a newly installed PV capacity of 104 GW for 2018, compared to 98 GW in the previous year. This corresponds to a 6.1 % increase.
The mood dampener in the VDMA business climate issue was less pronounced among German manufacturers of electronics production equipment. After the surveyed companies had expected 7.9 % growth in April 2018, the expected revenue growth in October 2018 was 6.4 %. Companies in the Asia sector were the most important sales markets, accounting for 38.6 % of the total revenue (April 2018: 33.1 %), followed by Germany with 30.7 % (April 2018: 26.3 %) and the rest of Europe with 15.9 % of the revenue (April 2018: 24.1 %). According to IHS Markit, worldwide revenue of LCD and AMOLED displays fell by 7.8 % in 2018 compared to the previous year. This development is justified by a significant oversupply and the resulting drop in prices, which weighed down the revenue figures. The market share of LCD displays was 81 %, corresponding to 19 % market share for AMOLED displays. By contrast, global printed circuit board revenue continued to grow by 3.8 % in 2018, albeit slower than in the previous year (8.5 %), according to Prismark. The value added growth in the electric power train of over 20 % expected by the VDMA in 2018 was significantly exceeded by a notable increase in sales figures. Compared to the previous year, sales of plug-in hybrids and all-electric vehicles increased by an average of 79 % in the three main sales markets of Europe, China and the USA, according to FEV Consulting.
Along with this, the VDMA also expects strong growth momentum in the area of battery production equipment. The companies in this industry expected sales growth in the September VDMA survey for 2018 of 19 %, significantly more than in March 2018 (15.2 %). The most important market here is in Germany, with a 37.7 % share of revenue (March 2018: 21.7 %) ahead of Europe with 23.1 % (March 2018: 22.8 %) and Asia with 22.9 % (March 2018: 30.8 %). Electromobility also drove the global demand for lithium-ion batteries to 140 to 150 GW in 2018, much more than in 2017 (100 to 125 GW), as estimated by the VDMA.

2. Explanations of business results and analysis of results of operations, net assets, liquidity position

2.1 Profitability Position

Sales revenue of 37.8 million euros (previous year: 41.5 million euros) was generated in 2018, which was below the 50 million euros forecast for 2018. This is mainly due to customer orders received in 2018, which will only affect revenue and earnings in 2019. Revenues of 14.3 million euros were mainly generated in China. In 2018, the other European countries with 7.9 million euros, Germany with 7.8 million euros, the USA with 6.2 million euros, Taiwan with 1.3 million euros, and other countries in the world with 0.3 million euros were additional sales territories.

As expected, inventories of work in progress and finished goods increased significantly. The increase in inventories amounted to 92.2 million euros in 2018 (previous year: 8.4 million euros increase in inventory) and is mainly due to further project progress in CIGS major orders. The capitalization amounted to 4.7 million euros (previous year: 7.9 million euros), whereby a larger proportion of project-related development expenses was booked compared to the previous year. Total output thus increased by 77.0 million euros in the financial year, from 57.8 million euros in 2017 to 134.8 million euros.

The electronics business segment generated revenues of 8.5 million euros (previous year: 26.2 million euros). New customer orders in 2018, including a follow-up order from the automotive industry, have not yet been reflected in sales or in inventories of work in progress.

Revenues in the solar segment declined from 4.0 million euros in 2017 to 3,3 million euros in the year under review and developed in line with the expected sales. As in the previous year, the business development in 2018 was significantly influenced by the handling of major CIGS orders, and is reflected in the clearly positive inventory development of unfinished products.

Due to the successful expansion of its customer base, the Energy Storage business segment was able to increase revenues significantly in 2018 to 17.0 million euros, as expected, following revenues of 2.9 million euros in 2017.

Sales revenues in the service segment amounted to 4.3 million euros in the fiscal year (previous year: 4.1 million euros).

Contract Manufacturing segment sales in 2018 came to 1.8 million euros, tripling the previous year's figure of 0.6 million euros. Sales revenues from affiliated companies fell to 3.0 million euros (previous year: 3.7 million euros).

Other operating income fell to 3.9 million euros in 2018 from 5.3 million euros in the previous year. This mainly includes income from the write-up of investment book values within the financial assets of 1.6 million euros (previous year: 4.2 million euros) as well as income from the reversal of value adjustments on trade receivables due to payments received of 0.3 million euros (previous year: 0.1 million euros).

The cost of materials rose in 2018 in line with the increase in total operating performance to 98.1 million euros (previous year: 40.7 million euros), with the cost of materials ratio rising from 70.4 % to 72.8 % of total operating performance in 2018 compared with the previous year due to the material-intensive CIGS major orders.

Personnel expenses increased only slightly compared with the previous year of 33.8 million euros in 2018 (previous year: 33.7 million euros). This development demonstrates the success of the measures now completed as part of the "Manz 2.0" optimization program for cost control, as well as the projects to increase productivity. As a result, the personnel expense ratio improved to 25.1% (previous year: 58.3%).

Amortization of intangible assets and depreciation of property, plant and equipment amounted to 3.6 million euros (previous year: 3.6 million euros) of which 2.6 million (previous year: EUR 1.4 million) euros related to capitalized development costs. There was no unscheduled depreciation as in the previous year.

Other operating expenses, which include marketing, sales, consulting and logistics costs, fell from the previous year to 20.7 million euros (previous year: 27.0 million euros). This includes freight costs for outgoing freight in the amount of 2.0 million euros (previous year: 0.2 million euros), which are primarily due to CIGS major orders, research-related expenses of 1.6 million euros (previous year: 2.2 million euros), legal and consulting fees of 0.9 million euros (previous year: 0.9 million euros) and expenses for sales commission of 0.3 million euros (previous year: 7.2 million euros).

The financial results decreased by 1.2 million euros to -3.6 million euros (previous year: -2.4 million euros). The item mainly includes depreciation of financial assets amounting to 3.6 million euros (previous year: 2.3 million euros), while the 15 % stake in NICE PV Research Ltd. is held in foreign currency. Interest and similar expenses of 0.3 million euros (previous year: 0.7 million euros) were also incurred in 2018. Earnings before taxes improved by 23.3 million euros year-on-year to -21.1 million euros (previous year: -44.4 million euros).

The annual deficit of 21.1 million euros is included in the balance sheet loss. A withdrawal of 20 million euros from the capital reserve resulted in a balance sheet loss of -5.8 million euros (previous year: -4.8 million euros).

2.2 Financial Position

The balance sheet total as of December 31, 2018 increased by 38.5 million euros to 253.0 million euros compared to the previous year's figure of 214.5 million euros. As a result of the high net loss for the year, equity fell by 21.1 million euros to 91.7 million euros (previous year: 112.8 million euros). Subscribed capital remained unchanged at 7,744,088 euros. The equity ratio at the balance sheet date fell from 52.6 % in the previous year to 36.2 %.

Liabilities to affiliated companies increased from 5.5 million euros to 9.6 million euros. Accounts payable rose to 9.3 million euros (previous year: 5.9 million euros), while advance payments received on orders increased from 74.3 million euros in the previous year to 130.6 million euros, or mainly due to advance payments received from CIGS major orders.

Provisions declined from 15.5 million euros in 2017 to 11.2 million euros. The provisions included for invoices not yet received fell from 4.7 million euros in the previous year to 0.6 million euros. A further 3.1 million euros relate to earn-out obligations (previous year: 3.4 million euros).

Manz AG's fixed assets increased from 97.5 million euros to 97.8 million euros as of the balance sheet date. The increase is mainly attributable to the increase in intangible assets from 15.7 million euros to 17.5 million euros due to the increase in capitalized development costs. The residual book value of financial assets amounted to 77.5 million euros as of the balance sheet date (previous year: 79.2 million euros), whereby the decline was largely attributable to the diminution of the investment in NICE PV Research Ltd. of 3.6 million euros with a corresponding appreciation of the investment in Manz Italy Srl of 1.6 million euros.

Current assets increased by 37.9 million euros from 116.7 million euros to 154.6 million euros. Liquid funds increased from 49.7 million euros to 63.3 million euros. Inventories increased to 88.2 million euros compared to 62.3 million euros in the previous year, mainly due to the CIGS orders. Of this amount, 62.0 million euros (previous year: 34.9 million euros) is attributable to advance payments made. Accounts receivable fell from 2.1 million euros to 0.9 million euros. Receivables from affiliated companies increased from 0.3 million euros to 1.6 million euros.

2.3 Liquidity Position

Cash flow from operating activities developed positively in fiscal year 2018 at 19.4 million euros (previous year: 18.5 million euros), which, despite the -21.1 million euros net loss for the year, was mainly due to cash inflows from the increase in liabilities and other liabilities of 60.7 million euros (previous year: 78.6 million euros). This includes, in particular, prepayments received on major CIGS contracts. There were cash outflows from inventories, and other assets of -26.0 million euros (previous year: -18.4 million euros).

Cash outflows from investment activities for intangible assets and property, plant and equipment in the amount of -5.6 million euros significantly reduced the cash flow from investment activities in 2018 to -5.7 million euros. The positive cash flow of EUR 16.5 million achieved in the previous year was mainly due to the sale of the subsidiary Manz CIGS Technology GmbH.

Cash flow from financing activities amounted to -3,000 euros in fiscal year 2018 after -18.8 million euros in the previous year, and corresponds to the cash outflows from interest payments.

At the end of fiscal year 2018, financial resources were 63.3 million euros (previous year: 49.7 million euros). This includes unavailable funds of 19.9 million euros resulting from cash deposits for prepayment guarantees issued by financial institutions to customers. As of the balance sheet date, Manz AG had no credit lines with banks (December 31, 2017: 0.0 million euros).

Based on current liquidity planning for 2019 and 2020, Manz AG will be in a position to meet its current and future payment obligations.

Please refer to the liquidity and financing risks in the Risk Report Concerning additional statements regarding liquidity and the types of financing in the Group.

2.4 General Statement on the Economic Situation of the Company

Total operating performance rose from 57.8 million euros in 2017 to 134.8 million euros as a result of the increase in the stock of work in progress, mainly from major CIGS orders. The annual result improved by 23.3 million euros from -44.4 million euros to -21.1 million euros, with personnel expenses remaining almost constant at EUR 33.8 million (previous year: EUR 33.7 million) and other operating expenses of 20.7 million euros (previous year: 27.0 million euros) were lower by 6.3 million euros as significant expenses had already been incurred in 2017 to realize the CIGS major orders.

At 130.6 million euros (previous year: 74.3 million euros), prepayments received on customer orders increased by 56.3 million euros and largely explained the increase in liabilities to 150.1 euros (previous year: 86.3 million euros) and thus the increase in the balance sheet total to 253.0 million euros (previous year: 214.5 million euros). This also lowers the personnel expenses ratio from 52.6 % in the previous year to 36.2 % now.
By contrast, Manz AG generated cash of 19.4 million euros (previous year: 18.5 million euros) from operating activities, which resulted in an increase in cash and cash equivalents from 13.6 million euros to 63.3 million euros as of the balance sheet date from a previous year's figure of 49.7 million euros.

The Managing Board views this development as a confirmation of the company's strategy and sees Manz AG on the right track towards a solid and profitable long-term business development. Further information on the achievement of targets can be found in the corresponding section of the forecast report.

2.5 Non-financial Performance Indicators

Manz AG is convinced that economic success and responsible behavior must not be in conflict with each other. In the opinion of the company, responsibility for its employees and for the environment is the essential foundation for the long-term economic success of a highly innovative high-tech equipment manufacturer. For example, Manz AG has for a long time offered its employees a broad range of training and further education measures at the Manz Academy. The company observes the applicable laws on employee law in Germany and the respective countries. In addition, we have established committees which advocate for employee matters in the individual subsidiaries, such as the voluntary employee representation in Germany. Within the Group, an open and trusting relationship is maintained between the Managing Board, the respective managing directors, the employees and their representatives. In addition, each company has central contact persons on special topics such as equal treatment, occupational safety, or health. Together with employee representatives, we create reliable working conditions, e. g. through a permanent improvement of occupational safety and working time models for flexible working time arrangements.

Resource-conserving production and management is no abstract concept for Manz AG and its employees, but rather an essential component of its corporate philosophy. Both while developing new products and services and in operating production equipment, we ensure that negative impacts on the climate and environment are kept to the lowest possible level through a responsible use of resources. Manz AG has been producing electricity from solar energy at its location in Reutlingen for years, and at the location in China, a substantial part of its own electricity needs is covered by a photo voltaic system on the roof of the company building. Each employee is responsible for treating natural resources carefully and helping to protect the environment and the climate through their individual behavior.

As an important employer in the Reutlingen region, Manz AG assumes responsibility for the community. In this context, local sports and cultural associations and organizations in which Manz AG employees work on a voluntary basis are supported by financial contributions as part of the "Employees in voluntary work"
initiative. In addition, Manz AG lives up to its social responsibility through the annual support of social institutions. In December, for example, a donation check for 5,000 euros was handed over to the KBF "Sonnengarten" nursery and to the "Förderverein für krebskranke Kinder e.V." in Tübingen. Company employees also have the opportunity to contribute to the company's donation.

We respect internationally recognized human rights and support compliance with those rights. We strictly reject all forms of forced labor and child labor. These and other standards are also set out in our Business Partner Code of Conduct, which is available for download on our website www.manz.com under the "Company" tab. They underline the importance and understanding of our value system, which we expect all business partners to follow, including but not limited to suppliers, consultants, sellers, brokers, dealers, contractors, and others.

Compliance at Manz AG ensures Group-wide compliance with laws and regulations, including the company's own guidelines. Manz AG asserts itself in competition through quality, strength of innovation and global presence. In order to gain the trust of our customers and business partners, we reject all forms of corruption. This means that each employee complies with regulations on competition in their specific area of responsibility. Agreements with competitors that violate antitrust law, for example regarding prices or other conditions, are prohibited. Suppliers are commissioned based on objective and clear criteria. Improper grounds may not play a role in their selection. When commissioning individuals to broker business transactions, Manz AG ensures that commission payments and other compensation are appropriate in relation to the services performed. Manz AG is an internationally active company. It observes relevant trade controls and regulations on import and export controlling and embargoes. The Group takes all necessary measures to prevent money laundering within its sphere of influence.

2.6 Corporate Governance Statement

The corporate governance statement in accordance with Section 289f 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 Fiscal Year 2018" 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) of the German Commercial Code (HGB) and notes pursuant to Section 176 (1) sentence 1 of the German Stock Corporation Act (AktG) on the disclosures in accordance with Section 289A(1) and Section 315a(1) of the German Commercial Code (HGB)

Composition of subscribed capital

Manz AG's subscribed capital is valued at 7,744,088.00 euros 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 owner one vote at the Annual General Meeting. Each share offers the same share of profits. This excludes 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 21 and 22 of the German Securities Trading Act (Wertpapierhandelsgesetz – WpHG) (in the version applicable prior to January 3, 2018) or pursuant to Sections 33 and 34 of the German Securities Trading Act (in the version applicable since January 3, 2018) 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 an authority to exercise control

The company does not have shares with special rights that confer an 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 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. 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 capital majority, but only a greater capital majority, for any amendment to the 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, insofar as this is legally permissible.

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 3,872,044.00 euros through the issuance of a total of 3,872,044.00 new bearer shares (no-par value shares) by means of cash contributions or contributions in kind (Authorized Capital 2016).
In principle, the new shares must be offered to shareholders for subscription. The new shares may also be taken over 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) Section 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 for the exclusion of 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 774,408.00 euros 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 § 186(3) Section 4 of the German Stock Corporation Act (AktG), with exclusion of subscription rights, will 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 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;

- inoder to exclude fractional amounts from subscription rights.

The Managing Board is authorized, with Supervisory Board approval, to establish the further details of the implementation of the capital increases from the authorized capital.

Authorization to issue partial debentures with option 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 9, 2014, 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 150 million euros, on one or more occasions until July 8, 2019. In addition, the Executive 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 1,971,223.00 euros, 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.
However, the Managing Board is authorized, with Supervisory Board approval, to exclude fractional amounts from shareholders' subscription rights and also to exclude shareholders' subscription rights to the extent that is necessary in order to give owners of already issued bonds with option rights or conversion rights and/or conversion obligations a subscription right to the extent to which they would be entitled as a shareholder after exercising their option 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 issued from authorized capital excluding subscription rights in accordance with Section 186 (3) sentence 4 AktG during the term of this authorization up to issue of bonds with option and / or conversion rights or conversion obligations pursuant to Section 186 Paragraph 3 Sentence 4 AktG, such as

- 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 AktG, in conjunction with Section 186(3) sentence 4, of the German Stock Corporation Act 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, 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 1,971,223.00 euros through the issue of up to 1,971,223 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 9, 2014 under agenda item 6, 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 shall participate in profit from the beginning of the fiscal year in which they are created on the basis of the exercise of option 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 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 of company stock to executives of affiliates as well as Manz's own managers below the executive level and managers of affiliates, 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 of company stock to members of Manz's Managing Board, on one or more occasions, through June 30, 2020.

The subscription rights will be granted, arranged, and exercised in accordance with the provisions defined in the resolution passed at 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 230,000.00 euros 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 issue of shares will be in the issue amount established in the authorization resolved at the Annual General Meeting on July 7, 2015. 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 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.

Authorization to issue stock options under the 2012 Manz Performance Share Plan and conditional capital IV

At the Annual General Meeting held on June 19, 2012, a resolution was passed authorizing the Managing Board, with Supervisory Board approval, to issue a total of up to 27,000 subscription rights for subscription of a total of up to 108,000 shares of company stock to executives of affiliates of the company, as well as Manz's own managers below the executive level and managers of affiliates, both domestic and foreign, below the executive level on one or more occasions through May 31, 2017. The Supervisory Board was given authorization to issue a total of up to 37,000 subscription rights for subscription of a total of up to 148,000 shares of company stock to members of Manz's Managing Board, on one or more occasions, through May 31, 2017.

The granting, structuring and exercising of the subscription rights takes place in accordance with the provisions laid down in the resolution of the Annual General Meeting on June 19, 2012.

The authorization of June 19, 2012, was revoked by a resolution passed at the Annual General Meeting of July 7, 2015, insofar as no subscription rights had yet been issued on the basis of the authorization.

Pursuant to Article 3(7) of the Articles of Incorporation, the company's capital stock has been conditionally increased by up to 256,000.00 euros through the issue of up to 256,000 no-par value bearer shares (Conditional Capital IV). The conditional capital increase serves to hedge the rights of the holders of subscription rights granted on the basis of the authorization granted by the Annual General Meeting on June 19, 2012. The issue of shares will be in the issue amount established in the authorization resolved at the Annual General Meeting on Tuesday, June 19, 2012. 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 bearer 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.

Authorization to purchase and dispose of treasury shares

The Annual General Meeting held on July 7, 2015, authorized the Managing Board of the company to acquire treasury shares until July 6, 2020, 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 issued 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 own 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 fulfillment of the subscription rights that were or are issued in the framework of the Manz Performance Share Plan 2012 resolved at the Annual General Meeting of June 19, 2012, under item 6 of the agenda or in the framework of the Performance Share Plan 2015 resolved at the Annual General Meeting of July 7, 2015, 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.

Significant 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 know-how 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 know-how with regard to CIS and/or CIGS technology for the manufacture of thin-film solar cells. The new patent and know-how license agreement can be terminated by ZSW for important cause if a competitor of ZSW acquires or exceeds 30 % of voting rights in Manz AG in terms of section 21 et seqq. of the German Securities Trading Act (WpHG) (in the version applicable prior to January 3, 2018).

Patent and know-how license agreement with NICE Solar Energy GmbH (previously Manz CIGS Technology 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 know-how licensing agreement from 2017, according to which NICE Solar Energy GmbH (formerly Manz CIGS Technology GmbH) of Manz AG has granted certain patents and know-how 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.

Joint Venture Talus Manufacturing Ltd.

A contract regarding Talus Manufacturing Ltd. in Chungli, Taiwan, where Manz Taiwan Ltd. in the amount of 80.5 % and the partner in the amount of 19.5 % is involved, exists between the subsidiary Manz Taiwan Ltd. and a leading US manufacturer of equipment for the semiconductor industry. The Partner has a right to terminate the contract in the event that shares of the Manz AG are sold by their existing shareholders to third parties, with the result that a person or company from the People's Republic of China is involved in the amount of more than 30 % directly or indirectly in the company. If the right of termination is exercised, the Partner has the right to buy shares of Manz Taiwan Ltd. at Talus Manufacturing Ltd. to be acquired against payment of the participation value (purchase option).

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 Executive Board member Martin Drasch stipulates that the Executive 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 Executive 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 deemed to have taken place when the company receives notification from a notifying party in accordance with Section 21(1), sentence 1 of the German Securities Trading Act (WpHG) (in the version applicable before January 3, 2018) that the notifying

party, with inclusion of the voting rights attributable to him pursuant to Section 22 of the German Securities Trading Act (WpHG) (in the version applicable before January 3, 2018), 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 EBIT return in the last fiscal year before the termination and the EBIT return that is expected to be realized in the current fiscal 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 Board and Supervisory Board of Manz AG, as well as the salaries earned by the members of the Managing Board and Supervisory Board in the 2018 fiscal year.

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 Management Board at the company's expense.

The company has undertaken to pay pension contributions to members of the Executive Board, Martin Drasch and Manfred Hochleitner, by paying annual contributions to a support fund. A corresponding obligation also existed for the Managing Board member Gunnar Voss of Dahlen, who left the Managing Board on March 23, 2018.

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 2015 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 an alignment of variable compensation with sustainable corporate development, the fair value of the subscription rights granted on the basis of the recognized 2015 Manz Performance Share Plan 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 fiscal 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 fiscal year (fixed annual salary).

The cash bonus grant requires that an EBIT margin of at least 0.1 % has been achieved. The Executive 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 2015

The rights to Manz shares granted and to be granted on the basis of the 2015 Manz Performance Share Plan in the years 2015 to 2018 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.

The vesting period for exercising the subscription rights is more than four years. If subscription rights are exercised after the end of the vesting period and within the exercise periods of three months after the respective Annual General Meeting, Manz AG shares are issued to the beneficiaries at the exercise price equal to the legally prescribed minimum issue price, which is currently 1.00 euros each.

The subscription rights can be exercised following the expiry of the vesting period, if and insofar as the respective performance target was reached. The specified performance targets for exercising the subscription rights are the EBITDA margin and the development of company value of Manz AG. The EBITDA margin performance target is calculated as the average of the EBITDA margins according to Manz AG's consolidated financial statements during the performance period of four fiscal years beginning with the fiscal year in which Performance Shares are granted. The development of company value performance target is calculated as the increase in the market capitalization of Manz AG during the performance period of four calendar years beginning with the start of the issue period in which the Performance Shares are granted.

The EBITDA margin and development of company value success targets are each assigned a weighting of 50 % for measuring the total degree of target attainment. There is an "objective," a "minimum value," and a "maximum value" for each performance target. The objective defines the value at which the degree of target attainment for the respective performance target is 100 %. The minimum value designates the lower limit of the target corridor, at or below which the degree of target attainment for the respective performance target is 0 %. The maximum value defines the value at or above which the degree of target attainment is 200 %.

For the EBITDA margin target, the minimum value for an EBITDA margin is 5 %. The objective is an EBITDA margin of 10 %. The maximum value for the EBITDA margin target is reached with an EBITDA margin of 15 %. For the development of company value target, the minimum value is 0 %. The objective is a 20 % development of company value. The maximum value for this performance target is a development of company value of 30 %.

For each initial number of Performance Shares, up to two Manz AG shares may be issued for the respective tranche in accordance with the total degree of target attainment. However, the value of the Performance Shares when the option is exercised is limited to 300 % of the value of the Performance Shares at the time of allocation, and if this value is exceeded the final number of Performance Shares is correspondingly reduced (cap). Furthermore, in the event of extraordinary developments the Supervisory Board and the Managing Board are entitled, at their discretion, to limit the ability of members of the Managing Board and other managers to exercise the granted subscription rights.

Further details of the 2015 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 2018 Financial Year" 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 Management 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 communication from a party that the party, including the voting rights attributable to him, 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) Paragraph (1) Sentence 1 AktG on the disclosures pursuant to Section 289a Paragraph 1, and Section 315a Paragraph (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 2018 Fiscal Year

The members of the Managing Board received total compensation of 1,060 thousand euros for carrying out their duties in the 2018 fiscal year (previous year: 1,295 thousand euros).

The following table provides an overview of the compensation paid to individual members of the Managing Board according to IFRS for performing their duties in the 2018 fiscal year:

	Non performance-related components		Performance-based components (short term)	Components with long-term incentive	
(in thousand euros) (Previous year in parentheses)	Fixed salary	Other benefits[1)]	Cash bonus	Subscription rights to shares (fair value)	Total

Martin Drasch, Chief Operations Officer, Chairman of the Managing Board since 10-1-2018	247 (247)	35 (35)	0 (100)	102 (213)	384 (595)
Manfred Hochleitner, Chief Financial Officer (since 7/1/2018)	124	12	0	0	136
Eckhard Hörner-Marass, Chairman of the Supervisory Board (until 9/30/2018)	361 (534)	10 (10)	113 [2] (0)	0 (2)	474 (546)
Gunnar Voss von Dahlen, Chief Financial Officer (until 3/23/2018)	60 [3] (140)	6 (14)	0 (0)	0 (0)	66 (154)
Total	**792 (921)**	**53 (59)**	**113 (100)**	**102 (215)**	**1,060 (1,295)**

1) In particular, monetary benefits of benefits in kind and contributions to the company Pensions (provident fund)
2) Compensation of the annual cash bonus for fiscal year 2018

The subscription rights to shares of Manz AG on the basis of the Manz Performance Share Plan 2015 were measured at fair value using recognized mathematical finance methods.

In fiscal year 2018, subscription rights to Manz AG shares were issued to Martin Drasch, a member of the Managing Board, in the amount of 6,048 (previous year: 4,544) performance shares, which entitle the holder to subscribe for up to 12,096 Manz shares at the end of the waiting period and upon achievement of the performance targets.

Compensation of former members of the Management Board

Gunnar Voss von Dahlen resigned from the Executive Board on March 28, 2018 and his employment contract ended on the same date. In addition to the total compensation reported as an active member of the Management Board for fiscal 2018, he received a severance payment of 250 thousand euros in accordance with the severance payment cap. The total compensation for the financial year amounts to 316 thousand euros.

Eckhard Hörner-Marass retired from the Management Board on 30 September 2018 and his employment contract ended on 31 December 2018. In addition to the total compensation reported as an active member of the Management Board for the 2018 financial year, he continued to receive compensation for the months October to December 2018 in the amount of 120 thousand euros and a pro rata bonus for the months October to December 2018 in the amount of 37.5 thousand euros. The total compensation for the financial year amounts to 631 thousand euros.

Compensation of the Supervisory Board

The Supervisory Board compensation regulated in the Articles of Incorporation was amended by a 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 a fixed compensation payable after the end of the financial year amounting to 12,000.00 euros, in addition to the reimbursement of expenses. The compensation for the chairperson of the Supervisory Board is 24,000.00 euros, while, for the deputy chairperson, it is 18,000.00 euros. Supervisory Board members that are only members during a portion of a fiscal year receive proportionately less compensation.

The applicable rules since July 4, 2018, stipulate that each member of the Supervisory Board receives a fixed compensation of 16,000.00 euros, 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 8,000.00 euros for each member of a committee. Committee activities shall be considered for a maximum of two committees. In addition, the members of the Supervisory Board receive an attendance fee of 1,500.00 euros for each attendance at a meeting of the Supervisory Board and its committees. Attendance fees shall 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).

The following table provides an overview of the compensation paid to individual members of the Supervisory Board for performing their duties in the 2018 fiscal year (previous year's values in parentheses):

(in thousands of euros) (Previous year's figures in brackets)	**Compensation**
Professor Dr. Heiko Aurenz, Chairman	75 (24)
Prof. Dr.-Eng. Michael Powalla Deputy Chairman until July 3th, 2018	19 (18)
Dieter Manz Deputy Chairman as of July 4th, 2018	33 (4)
Dr. Zhiming Xu	15 (2)
Total	**142 (54)**

Furthermore, the company also covered the cost of D&O insurance 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. Report on Opportunities and Risks

3.1 Risk Management and Internal Monitoring 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. Manz AG is in a position to identify potential dangers throughout the group in good time, to evaluate and counteract them with appropriate measures by applying risk management integrated in the corporate management. In the course of its entrepreneurial activities, i.e. in the interplay between opportunities and risks, Manz AG also consciously takes risks that are commensurate with the expected benefit from the corresponding business activity. As such, risks cannot be completely avoided, but they are minimized or transferred where 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.
The regular analysis and assessment of risks is based on a risk management system consisting of a defined group of risk managers, defined risk categories and a risk classification that reflects the potential danger and urgency of the need for action. 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 grouped for the most comprehensive possible coverage according to the topical industry risks, operational risks and financial risks.

These are assigned the following categories:
Industry risks

- Macroeconomic risks
  - Risks due to increasing competition
  - Risks due to rapid technological change and the market launch of products
- Operating risks
  - Project risks
  - Dependence on large customers
  - Technological risks
  - Personnel risks
  - Risks arising from the deployment of IT systems Risks arising from the use of IT systems
- Financial risks
  - Liquidity and financing risks
  - Currency 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 risk management system have been assessed by the public auditors. He noted that the Managing Board has taken the measures required under Section 91 (2) 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. Manz AG thereby fulfills the requirements of the German Control and Transparency in Business Act (KonTraG).

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.

Uniform accounting and valuation based on the rules applicable to the parent company is ensured by the group accounting guidelines and the consolidated financial statements and adjusted at regular intervals to current external and internal developments. 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 uses 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.

4.2 Risk Report

4.2.1 Industry Risks

Macroeconomic risks

Overall and financial developments in the central sales markets of Manz AG, especially in the main sales region Asia with China as the leading economic power, can have negative effects on business development. A possible Brexit could have a negative effect on the future preparation of potential business transactions. Planned investments in the target industries of Manz AG could be delayed due to financing bottlenecks. In addition, the refinancing of listed companies via the capital market might become much more difficult. There is a risk that potential customers of Manz AG, in general, do not have the necessary capital available for investment in new equipment. Manz operates a continuous market and competitive observation and analysis to detect such developments at an early stage. 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 changes in the market environment. Together with the increase in productivity along the entire value chain and the associated increase in profitability, these risks are kept manageable by the company.

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. Another risk is the manufacturer of copies in Asia. This could have a direct impact on the service, revenue and earnings situation of Manz AG and on the associated development of the market shares of the company. In order to counteract these risks effectively, the newly created "Market Intelligence" division constantly conducts market and competitive surveys, which are discussed in detail in international sales meetings on a quarterly 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 introduction" introduced in 2017 also aims to provide the necessary competitive edge in growth markets with strategic innovations and to further accelerate the expansion of Manz AG's technological leading market position. 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.

Risks from rapid technological change and from launching new products

To maintain its technological leading market position, research and development activities as well as an innovative product portfolio are of key importance to the company. The industries

for which Manz AG develops and manufactures its machines and equipment are characterized by rapid technological change. Through the development of the corresponding new technologies or better market knowledge or structures, competitors of Manz AG could succeed in reacting more quickly or better to changed customer requirements and thus achieve 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.
Manz AG maintains close contact with its customers and can thus identify new trends at an early stage. The proximity to the customer further enhances Manz AG through the constant expansion of the associated service business, in particular with after-sales service. The proximity to the customer further enhances Manz AG through the constant expansion of the associated service business, in particular with after-sales service. Manz AG also counters the basic risk involved in the development and introduction of new products for individual customers by expanding its product portfolio to include machine components that can be modularly customized to assemblies or complete production machines.

4.2.2 Operating Risks

Project risks

Project risks relate primarily to non-standardized major contracts. In such contracts risks arise from potential missing planned costs or schedules, the non-fulfillment of the acceptance criteria and order cancellations and the associated non acceptance of contracts as well as contract risks. By expanding the share of standardized machine components in the product portfolio, which can be modularly customized to modules or entire production machines according to the customer's requirements, Manz AG intends to reduce the aforementioned project risks overall.
Project risks also exist, in particular with regard to 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 263 million euros. Project handling risk is reduced through the use of external project management experts experienced in such major projects, some of whom are also temporarily engaged, as well as through a monthly steering committee, which also includes all members of the Managing Board. The financial risk is reduced through agreed advance payments made by the principals to Manz AG.

Dependency on key accounts

The development of production planning for industrial operations often entails significant levels of contract volume for individual projects and customers. Manz AG generated more than 50 % of its revenue from 3 customers in fiscal year 2018. For this reason, Manz pursues the goal of balancing the order structure. Standard machines, as well as "small lines" and large-scale projects (> 10 million euros single order) should balance each other, thereby avoiding the risk of negative effects in case of a decline in major customers by broadening the customer base and diversifying project volumes of the business model into markets, regions as well as products and services within the whole group.

Technological risks

In the company's opinion, the Manz Group has a leading market position in the key technologies of its portfolio. In particular, in their Electronics and Energy Storage segments, a number of other companies are active, which try to make up for the technological advantage of the Manz Group and thereby threaten this market position. Manz therefore depends on continuously developing new and future-oriented production equipment. Due to the recent occasional rapid technological development and the intensive efforts of the competitors, there is the risk that the company will not be able to do the same in both segments at the same time, in particular to carry out time-consuming and costly development projects to the extent required to maintain a leadership role and market position. Manz endeavors to reduce this risk by continually improving the Group's financial performance and cash flows, while also strengthening the business with standard products and system solutions from intelligent product building blocks.

Personnel risks

Qualified and motivated managers and employees are crucially important to the success of a high-tech equipment manufacturer. 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 the company and its offering to employees, such as flat hierarchies, exciting activities and flexible working hours. 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.

Risks arising from the deployment of IT systems Risks arising from the use of IT systems

The main business area of the Manz Group is not in the IT area. Nevertheless, IT systems and Internet connections are of central importance to Manz as an international company in day-to-day operations. Against this background, and in view of generally rising cybercrime, the security and reliability of data, networks and systems is essential. Manz counters the risks of possible attacks with constant monitoring and the use of protection systems and regular training and further education. The Manz Group prevents technical disruptions through modern data structures and systematic backups. Manz understands IT security as a continuous process and continuously evaluates new risks and security options.

4.2.3 Financial Risks

Liquidity and financing risks

The parent company Manz AG currently has no cash credit lines. Discussions are currently being held with banks regarding the conclusion of new credit lines. The subsidiaries in Slovakia, Hungary, Italy, China and Taiwan finance themselves primarily through short-term overdraft facilities and, to a lesser extent, long-term loans. As of December 31, 2018, the Manz Group had almost unchanged free cash and guarantee credit lines of 14.6 million euros (previous year: 14.0 million euros).

In order to reduce liquidity and financing risks, Manz Group companies are generally required to process orders "cash positive" wherever possible. In this case, the payments should exceed the disbursements over the entire term of the respective project.

As is customary in project business, delays in incoming orders or payments have a significant impact on the liquidity of the respective company and, if necessary, on the Group. The Manz Group uses a rolling liquidity forecast, which is updated every two weeks, in order to identify these risks from delayed incoming payments promptly.

Based on current corporate planning, the Managing Board assumes that Manz AG will be able to meet its payment obligations in fiscal years 2019 and 2020.

Currency risks

Manz AG's currency risks arise from operating activities. These transactions of the Asian companies in USD mainly pertained to the sale of machinery In the fiscal year 2018. The transaction-based currency risk is fundamentally - where necessary and possible - through forward exchange transactions. Furthermore, economic currency risk is generally also reduced by distributing the production locations over several countries (natural hedging).

4.3 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 Solar, Electronics and Energy Storage business segments. 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 intelligently linked together to form complete, individual system solutions based on a modular system. Manz AG also offers services around its core technological competencies. With diversification across technologies, industries and regions, with the stability needed for sustainable business development, production capacity can be adjusted according to the investment cycles of individual industries and efficiently leveraged by other segments within the Group. At the same time, this diversified business model gives the company the opportunity to benefit from the growth potential of several dynamic target markets. From a stable base, Manz is thus giving the entire business model entrepreneurial flexibility to react quickly to market developments and take profitable advantage of growth opportunities.

Sustainable competitiveness and profitability through profitable growth

Manz AG's diversified business model forms the basis for sustainable stability and steady, profitable growth. With the aim of significantly expanding the customer base and thus further stabilizing the business model, Manz AG decided in mid-2017 for all business segments to significantly increase the share of modular machines in the product portfolio in addition to customized solutions. These modular machines can be intelligently linked to complete, individual system solutions based on a modular system. This step significantly reduces development risks, effort and duration and thus significantly shortens the depreciation of development efforts (RoI). At the same time, this creates synergy effects for Manz AG which increase the productivity of the entire Group.
Cost-conscious corporate management is of great importance. To this end, we are working consistently on further cost optimization, including through improved cost transparency, responsibility and control, strategic product development, improved sales structures, optimized capacity utilization of all locations, more efficient internal processes. With its diversified business model and the measures taken, Manz AG sees itself on the right track to remain competitive and profitable in the long term.

Cross-segment technology deployment offers synergy effects and flexibility

In developing its production systems, Manz AG carries out an active technology transfer between the relevant target industries. By applying its comprehensive technological expertise across industries, Manz AG can offer its customers innovative production solutions. Manz thus makes a significant contribution to minimizing the manufacturing costs for its customers, and contributes significantly to economic production. At the same time, the synergy effects achieved between the business segments contribute to increasing productivity and profitability of the Manz Group. Utilizing synergy effects between the individual business segments also enables Manz AG's business model to be flexible in its response to new growth trends and sales markets with additional revenue and earnings potential while, at the same time, making it possible to permanently reinforce the company's good competitive position as an innovation leader.

Strategic cooperation with Chinese partners opens up growth potential

By entering into the strategic cooperation agreement between Manz AG, Shanghai Electric Group, and the Shenhua Group at the beginning of 2017, the partners have formed a unique worldwide strategic cooperation in the CIGS thin-film sector, in which they have bundled their individual strengths. China Energy Investment Corporation Limited is one of China's largest energy producers. Shanghai Electric is China's leading supplier of equipment to generate electricity, with extensive experience in the renewable energies sector. As a high-tech equipment manufacturer and PV pioneer, Manz AG has contributed its CIGS technology with a record efficiency of 22.6 % on a standardized laboratory cell format and its unique CIGS research team to this cooperation. By combining their complementary expertise in power generation, large-scale equipment and plant manufacturing, and world-class leading edge technology, the partners form a strong alliance to further develop and commercialize CIGS technology in China and around the world. Manz AG is directly and indirectly the exclusive distribution partner.
As part of the strategic cooperation agreement, Manz AG also received two major CIGS contracts with a total volume of 263 million euros. The realization of the orders, which began with the first payment at the end of May 2017, continues to proceed according to plan, and Manz has been able to reach all agreed milestones on schedule. By August 2018, Manz AG had received several installments of around 75 % of the agreed total payments. Due to customer-induced delays in the overall project, Manz expects CIGSfab to start production in the fourth quarter of 2019, and CIGSlab will start production by the middle of 2020. In view of the positive project progress to date, the opportunities for follow-up orders are good from the Managing Board's point of view. The cooperation with anchor investor Shanghai Electric generally provides Manz AG with improved access to the Chinese market, and also creates further medium-term growth potential in the Energy Storage business segment, with the future electromobility and stationary energy storage trends, and also in the strategic Electronics business segment.

4.4 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 controlled are strategic, operational and financial risks that are to be identified at an early stage by means of appropriate monitoring and control systems and thus 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 Group or its individual subsidiaries for the fiscal year 2018 or for the forecast period 2019. Risks that endanger the continued existence of the company are defined as risks with a probability of occurrence of more than 60 % and a financial impact on EBIT of more than 20 million euros.

In the fiscal year 2018, the overall risk and opportunity situation improved slightly compared with the previous year. The risks and their possible effects are known, as are the measures to be introduced. The resulting opportunities are analyzed and, if necessary, implementation is initiated. Risks that arise in the fiscal year 2019 (forecast period) and could lead to deviations in the development of revenue and/or earnings are evaluated as follows:

Risks	**Impact** low/moderate/high	**Likelihood of occurrence** low/moderate/high	**Net risk in millions of euros**
Industry risks			
Macroeconomic risks	■■	■	1.25
Risks from increasing competition	■■	■■■	3.75
Risks from rapid technological change and from launching products	■■	■■■	3.75
Operating risks			
Project risks	■■■	■	5
Dependency on key accounts	■■■	■	5
Technological risks	■■■	■	5
Personnel risks	■■	■■■	3.75
Risks arising from the use of IT systems	■■	■	1.25
Financial risks			
Liquidity and financing risks	■■■	■	5
Currency risks	■■	■	1.25

Opportunities	**Impact** low/moderate/high	**Likelihood of occurrence** low/moderate/high
Comprehensive innovative technology portfolio	■■■	■■■
Sustainable competitiveness and profitability through profitable growth	■■■	■■■
Suprasegmental technology transfer	■■■	■■■
Strategic cooperation with Chinese partners	■■	■■■

■ low ■■ moderate ■■■ 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 risks to the future development of Manz AG that could have a material adverse effect on the Group's earnings, financial position and net assets.

5. Forecast Report

5.1 Outlook

In our forecast report, we address, insofar as possible, Manz AG's expected future growth and the company's business environment in the current fiscal year of 2019.

In fiscal 2018, Manz AG generated sales of 37.8 million euros (previous year: 41.5 million euros) and a total operating performance of 134.8 million euros (previous year: 57.8 million euros). In its operating business, Manz generated earnings before interest and taxes (EBIT) of -17.5 million euros (previous year: -41.9 million euros) and earnings before interest, taxes, depreciation and amortization (EBITDA) of -13.8 million euros (previous year: -38.3 million euros).
After the 2017 financial year, Manz AG had assumed a trend increase in revenue to EUR 50 million. In addition, a significant increase in a total operating performance was forecast with an improved but not balanced EBIT.
In the Electronics division, there were delays in incoming orders, so that the overall targeted sales increase compared to the previous year could not be realized in 2018. On the other hand, the processing of CIGS orders had a significant impact on the significant increase in total output in 2018, which led to confirmation of the forecast. EBIT and EBITDA improved significantly, but remained in the double-digit loss range.

According to the Kiel Institute for the World Economy, the slowdown in the global economy will continue in 2019 as well. Overall, however, the major economies remain on a somewhat slower growth curve. An impending tightening of trade conflicts of the recent past is mentioned as the most important influencing factor. The imminent exit of Great Britain from the EU poses another risk to the economy if a UK-EU27 settlement is not found in time. Against this background, global economic growth of 3.4 % is forecast for 2019, after 3.7 % in 2018. At 2.5 %, the US is growing more slowly than the global average (2018: 2.9 %), as is Europe at 1.7 % (2018: 1.9 %). Germany itself is defying the global trend and is expected to grow by 1.5 % in 2018 to 1.8 % in 2019. Economic growth in China will be weaker again in 2019 than previously, with Kiel's economists expecting only 6.1 % growth (2018: 6.6 %). The German Engineering Federation (VDMA) also expects 2.0 % revenue growth for 2019 to be weaker than in 2018 (5.0 %). The Chinese market, which is important for Manz, is defying the global trend and revenue is expected to grow by 3 % in 2019 (2018: 2.0 %).

In the important customer segments of Manz AG, German manufacturers of PV production equipment are more subdued than last year and expect an average increase in revenue of

1.2 % (2018: 4.2 %). IHS Markit once again expects a significant increase in newly installed capacity of 123 GW in 2019 (2018: 104 GW).

According to the German Engineering Federation (VDMA), German electronics manufacturers expect revenue to increase by 5.1 % in 2019 (2018: 6.4 %). IHS Markit expects a slight year-on-year increase of 1.7 % in 2019 in the global market for LCD and AMOLED displays, following a market correction and the associated decline in revenue in the past year. The share of revenue is shifting slightly in favor of the AMOLED displays, for which a revenue share of 21 % is expected in 2019 (2018: 18 %). The revenue share of LCD displays in the market as a whole is therefore decreasing slightly from 81 % in 2018 to 77 %. According to Prismark, global printed circuit boards revenue should grow by 2.9 % in 2019 compared to the previous year (2018: 3.8 %). VDMA is again expecting an increase of more than 20 % for the year 2019 for the added value of the mechanical engineers around the electronic power train.
German manufacturers expect revenue to increase by 22 %, in comparison to 19 % in the previous year in the Energy Storage segment, according to VDMA 2019. Global demand for lithium-ion batteries is also expected to grow strongly after several very dynamic years. This market is likely to be influenced by the strong development of automotive applications and to have a corresponding dynamic in 2019.

5.2 Overall Assessment of the Company's Future Development

In view of the stable economic situation in the countries and markets relevant to Manz AG and the positive outlook for the industry, the Managing Board expects Manz AG to continue to grow profitably in 2019. For 2019, the Managing Board expects an increase in sales to EUR 50 million as well as an increase in total output, which will be determined by the major CIGS orders. The expected EBITDA and EBIT remain double-digit negative, but will tend to improve by at least 15 % to 20 % compared to 2018. Mainly due to the expected negative annual result for 2019, the Management Board expects a reduction in the equity ratio of around 5%, which will lead to a corresponding increase in gearing.

In the Solar division, the focus in 2019 will largely be on CIGS large orders. The Managing Board expects that the order volume of 263 million euros will only make a contribution to sales in the 2020 financial year due to the delay in orders on the part of the customer. Sales in the solar sector will be correspondingly restrained in 2019 and will remain at the sales level of the past fiscal year 2018.

The Managing Board expects revenue growth in the energy storage and electronics business segments in 2019, which are largely attributable to orders received as of the end of the 2018 financial year. Sales are even expected to double in the electronics segment.

High expenditures in research and development for the further expansion of the product portfolio are expected for 2019, focusing primarily on the three strategic business areas of energy storage, electronics and solar. The goal of the Managing Board is to further develop the comprehensive technology portfolio on the one hand, and to strengthen and expand Manz AG's favorable market position in all segments on the other.

The order backlog as of December 31, 2018 increased from 300.5 million euros in the previous year to 368.5 million euros which will result in very solid capacity utilization.

The Managing Board regards Manz AG's liquidity for the 2019 and 2020 fiscal years as secured and expects this figure to be slightly below the previous year's level.

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 21, 2019

Manz AG

Martin Drasch | Manfred Hochleitner

Chief Executive Officer

Translation from the German language

Engagement Terms, Liability and Conditions of Use

We, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, conducted our audit of this financial reporting on behalf of the Company. Besides satisfying the legal disclosure requirement (Sec. 325 HGB ["Handelsgesetzbuch": German Commercial Code]) for statutory audits, the audit opinion is addressed exclusively to the Company and was issued for internal purposes only. It is not intended for any other purpose or to serve as a decision-making basis for third parties. The result of voluntary audits summarized in the audit opinion is thus not intended to serve as a decision-making basis for third parties and must not be used for purposes other than those intended.

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 2002.

To clarify, we point out that we 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 will not update the audit opinion to reflect events or circumstances arising after it was issued, unless required to do so by law.

It is the sole responsibility of anyone taking note of the summarized result of our work contained in this audit opinion 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.