Brockhaus Capital Management AG

Consolidated Financial Statements 2019

For the period from 1 January to 31 December 2019

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Consolidated statement of comprehensive income

in € k	Note	01.01.2019-31.12.2019	01.08.2018 - 31.12.2018
Revenue	7	**16,561**	**1,098**
Increase/ (decrease) in finished goods and work in progress		211	(72)
Other own work capitalised	8	769	26
Total output		**17,541**	**1,052**
Cost of materials	9	(4,299)	(220)
Gross profit		**13,242**	**832**
Personnel expenses	10	(6,803)	(748)
Other operating expenses	11	(5,558)	(1,647)
Expected credit loss allowances on trade receivables	20	(2)	(14)
Other operating income	12	390	263
EBITDA	6	**1,270**	**(1,314)**
Depreciation of property, plant and equipment and amortisation of intangible assets	13	(820)	(28)
EBITA		**450**	**(1,342)**
Amortisation of intangible assets identified in first-time consolidation	13	(2,714)	(188)
Finance costs	14	(1,179)	(47)
Finance income		56	-
Financial result		(1,124)	(47)
Earnings before tax		**(3,387)**	**(1,577)**
Income tax	15	(436)	(59)
Profit or loss*		**(3,823)**	**(1,636)**
Foreign currency translation adjustments		(90)	-
Total comprehensive income*		**(3,913)**	**(1,636)**
Weighted average number of shares outstanding		2,905,836	2,502,510
Earnings per share (€)	16	**(1.32)**	**(0.65)**

* The profit or loss for the period and total comprehensive income are fully attributable to shareholders of Brockhaus Capital Management AG.

Consolidated statement of financial position

in € k	Note	31.12.2019	31.12.2018
Assets			
Property, plant and equipment	17	11,322	797
Intangible assets and goodwill	18	160,585	32,283
Deferred tax assets	15	982	-
Non-current assets		**172,888**	**33,080**
Inventories	19	10,676	4,281
Trade receivables and other assets	20	6,504	1,377
Advance payments		489	76
Cash and cash equivalents	21	17,171	31,578
Current assets		**34,840**	**37,312**
Total assets		**207,728**	**70,392**

Equity and liabilities			
Subscribed capital	22	6,642	4,152
Capital increase not yet registered	23	-	3,000
Capital reserve	24	118,727	42,078
Other reserves	25	97	-
Currency translation difference		(90)	-
Accumulated losses		(6,459)	(2,636)
Equity		**118,917**	**46,594**
Non-current financial liabilities	26	55,889	15,948
Other provisions	28	490	42
Deferred tax liabilities	15	18,556	3,415
Non-current liabilities		**74,935**	**19,405**
Current tax liabilities		736	235
Current financial liabilities	26	5,435	1,030
Trade payables and other liabilities	27	6,916	2,819
Contract liabilities	7	665	266
Other provisions	28	125	42
Current liabilities		**13,876**	**4,392**
Liabilities		**88,811**	**23,798**
Total equity and liabilities		**207,728**	**70,392**

Consolidated statement of changes in equity

in € k	Note	Subscribed capital	Capital increase not yet registered	Capital reserve	Other reserves	Currency translation difference	Accumulated losses	Equity
01.08.2018		**4,152**	**-**	**42,140**	**-**	**-**	**(1,000)**	**45,292**
Transactions with shareholder								
Capital increase before registration	23	-	3,000	-	-	-	-	3,000
Costs of capital increases		-	-	(62)	-	-	-	(62)
Profit or loss/ total comprehensive income		-	-	-	-	-	(1,636)	(1,636)
31.12.2018		**4,152**	**3,000**	**42,078**	**-**	**-**	**(2,636)**	**46,594**
Transactions with shareholder								
Registration of the capital increase	23	100	(3,000)	2,900	-	-	-	-
Capital increase	22	2,390	-	74,018	-	-	-	76,409
Costs of capital increases		-	-	(269)	-	-	-	(269)
Profit or loss/ total comprehensive income		-	-	-	-	(90)	(3,823)	(3,913)
Equity-settled share-based payment transactions	36	-	-	-	97	-	-	97
31.12.2019		**6,642**	**-**	**118,727**	**97**	**(90)**	**(6,459)**	**118,917**

Consolidated statement of cash flows

in € k	Note	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Profit or loss		(3,823)	(1,636)
Income taxes paid/ income tax refunds		(1,735)	(318)
Income tax expense/ (income tax income)	15	436	59
Expenses for equity-settled share-based payment transactions	36	97	-
Amortisation, depreciation and impairment losses	13	3,534	216
Financial result	14	1,124	47
Gain/ (loss) on the sale of fixed assets		(50)	-
Other non-cash expenses/ (income)		3	-
Increase/ decrease in inventories, trade receivables and other assets not attributable to investing or financing activities		495	495
Increase/ (decrease) in trade payables and other liabilities not attributable to investing or financing activities		1,215	116
Increase/ (decrease) in other provisions		131	1
Cash flow from operating activities		**1,426**	**(1,019)**
Acquisition of property, plant and equipment	17	(919)	(35)
Acquisition of intangible assets	18	(26)	-
Development costs capitalised	35	(443)	-
Proceeds from sale of property, plant and equipment		137	-
Acquisition of subsidiaries, net of cash acquired	33	(86,043)	(25,999)
Interest received		1	-
Cash flow from investing activities		**(87,293)**	**(26,033)**
Loans and other borrowed funds raised		17,193	12,740
Repayment of lease liabilities		(337)	-
Interest paid		(232)	(31)
Repayment of loans and other financial liabilities		(1,673)	-
Proceeds from issue of shares		56,784	-
Costs of capital increases		(269)	-
Cash flow from financing activities		**71,466**	**12,709**
Change in cash and cash equivalents		(14,401)	(14,343)
Cash and cash equivalents at the beginning of the period		31,578	45,920
Change in cash and cash equivalents adjusted from currency fluctuations		(6)	-
Cash and cash equivalents* at the end of the period	21	17,171	31,578

* Cash held corresponds to cash and cash equivalents (Note 21).

Notes to the consolidated financial statements

I. General information, methods and policies

1. Information on the Group

Brockhaus Capital Management AG (**BCM AG** or the **Company** or the **Parent Company**, together with its subsidiaries the **Group**) has its registered office in Nextower, Thurn-und-Taxis-Platz 6, 60313 Frankfurt am Main, Germany, and is registered with the commercial register at the Frankfurt am Main District Court under commercial register file number HRB 109637. The Company was created by changing the legal form of Eagle Fonds Verwaltungs- und Treuhand GmbH, with its registered office in Frankfurt am Main (Frankfurt am Main District Court, commercial register file number HRB 78705) through entry in the commercial register of 19 September 2017.

The Company's purpose is to establish companies and acquire, hold, manage and foster investments in companies over the long term, and, as the case may be, sell such investments as well as provide services relating to the aforementioned, such as support for sales, marketing, finance and general organisational and management matters and for the acquisition of funding. The Company's purpose also includes business activities involving a managing holding entity of subsidiaries and providing services for these (group services), extending liabilities to subsidiaries, to the extent that this does not require official approval, and developing and implementing new business concepts for subsidiaries and third parties as well as providing services and advice to companies, especially regarding business alignment, business concept, capital resources, funding options and capital investment (management consulting), to the extent this this does not require official approval. The Company's purpose within the scope of the business strategy also includes investing free cash available to the Company, which is not yet committed to investments. This includes investing in listed securities, such as shares, participation certificates, other mezzanine instruments, debt securities, funds, certificates or derivatives. The Company's objective for its investments is long-term fostering and growth in value.

2. Accounting policies

The consolidated financial statements were prepared voluntarily. The consolidated financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS), as adopted by the EU, and supplementary provisions found under Section 315e (3) in conjunction with (1) of the German Commercial Code (HGB). IFRS include the applicable International Accounting Standards (IAS), the International Financial Reporting Standards (IFRS) along with the Interpretations of the Standing Interpretations Committee (SIC) and the International Financial Reporting Interpretations Committee (IFRIC).

3. Basis of preparation

The consolidated financial statements have been prepared on a historical cost basis. Excluded from this are specific items that were recognised at a subsequent measurement amount or at **fair value** on the reporting date. Explanations are provided in the corresponding accounting policies.

Historical cost is generally based on the fair value of the consideration paid in exchange for the asset. Fair value is the price that would be received for the sale of an asset or paid for the transfer of liability in an orderly transaction between market participants at the measurement date. This applies irrespective of whether the price was directly observable or was estimated using a valuation method.

The consolidated financial statements comprise the consolidated statement of comprehensive income, the consolidated statement of financial position, the consolidated statement of changes in equity, the consolidated statement of cash flows and the notes to the consolidated financial statements. The consolidated financial statements are commensurate with the classification requirements of IAS 1. In the interests of clarity, the items of the consolidated statement of other comprehensive income and the statement of financial position are aggregated and broken down further and explained in the notes.

The accounting policies and explanations and further information are applied consistently. Exempted from this are the new accounting policies presented under Note 4.18.

The presentation in the statement of financial position differentiates between current and non-current assets and liabilities. Assets and liabilities are classified as current if they are due or are to be settled within twelve months of the reporting date. The statement of comprehensive income is prepared to determine the profit (or loss) and the total comprehensive income.

In accordance with IAS 1.106 et seq. the statement of changes in equity presents the movement of each component of equity within the reporting period and in the prior reporting period.

According to IAS 7, the statement of cash flows records cash flows to present information on the movement of the Company's cash and cash equivalents. Cash flows are differentiated between operating activities, investing activities and financing activities. The sum of cash movements of these three components corresponds to the change in cash and cash equivalents. The statement of cash flows is recorded according to the indirect method for the presentation of cash flows from operating activities and the direct method for the presentation of cash flows from investing activities and financing activities.

The fiscal year of the Company has been changed, resulting in the existence of a short fiscal year from 1 August 2018 to 31 December 2018 (**prior year** or **prior-year period**). As a result, comparability of the reporting periods is limited. From 1 January 2019 the Company's fiscal year corresponds to the calendar year. These consolidated financial statements relate to the fiscal year from 1 January 2019 to 31 December 2019 (**reporting period**).

The consolidated financial statements are presented in euro, which is the Company's functional currency. The information reported is rounded is accordance with standard commercial practice in euro (**€**), thousands of euro (**€ k**) or millions of euro (**€ m**). Due to this rounding method, the numbers presented do not always add up precisely to the totals provided. Negative figures are presented in parentheses and zero values are denoted with a hyphen (-).

The Executive Board prepared these consolidated financial statements as at 28 April 2020 and presented them to the Supervisory Board for approval.

4. Accounting policies

Amounts were recognised and measured based on the going concern assumption. For the preparation of the financial statements, assets and liabilities and income and expenses are not netted unless a requirement demands or explicitly permits this.

4.1 Consolidation policies

Business combinations

The subsidiaries are consolidated using the acquisition method pursuant to IFRS 3. The cost of the business combination is allocated by recognizing the identifiable assets acquired and liabilities and contingent liabilities assumed at their fair values at the acquisition date. A positive remaining difference is recognised as goodwill. A negative remaining difference is recognised through profit and loss after renewed examination. Transaction costs are expensed as incurred unless they are related to the issue of debt securities or equity instruments.

Any contingent consideration obligation is measured at fair value at the date of acquisition. If an obligation to pay contingent consideration is classified as equity, then it is not remeasured and settlement is accounted for within equity. Otherwise, other contingent consideration is remeasured at fair value at each reporting date and subsequent changes in the fair value of the contingent consideration are recognised in profit or loss.

Subsidiaries

Brockhaus Capital Management AG and all its controlled subsidiaries (controlling interests) are included in the consolidated financial statements. Pursuant to IFRS 10 control exists when an investor has control, is exposed to or has rights to variable returns and it is able to affect the amount of those variable returns through its power over the subsidiary. It is generally assumed that ownership of a majority of voting rights results in control. To support this assumption, where the Group does not own a majority of voting rights or similar rights, it considers all relevant matters and circumstances in assessing whether it has control of this entity. This is the case, for instance, where there is a current ability to exercise control via potential voting rights or other contractual arrangements. The financial statements of subsidiaries are prepared as at the same reporting date as the financial statements of the Parent Company and uniform accounting policies are applied.

On account of control, the following group entities were included in the consolidated financial statements as at 31 December 2019:

- Palas Holding GmbH, Karlsruhe
- Palas GmbH Partikel- und Lasermeßtechnik, Karlsruhe
- IHSE AcquiCo GmbH, Oberteuringen
- IHSE Holding GmbH, Oberteuringen
- IHSE Beteiligungs GmbH, Oberteuringen
- IHSE GmbH, Oberteuringen
- IHSE Immobilien GmbH, Oberteuringen
- IHSE USA LLC, Cranbury, NJ, USA
- IHSE GmbH Asia Pacific Pte Ltd, Singapore

Subsidiaries are included in the consolidated financial statements from the date of acquisition, i.e. from the date the Group obtains control. Consolidation ceases when the parent loses control of the subsidiary. When the Group loses control of a subsidiary, it derecognises the assets and liabilities and any related non-controlling interests and other components of equity. Any gain or loss is recognised at fair value.

All intragroup balances, transactions, income, expenses, as well as gains and losses resulting from intragroup transactions are eliminated in full.

4.2 Foreign currency

The consolidated financial statements are presented in euro, which is the Company's functional and presentation currency. Each entity within the Group determines its own functional currency. The items in the financial statements of individual entities are measured in their functional currency. Transactions in foreign currencies are initially translated into the functional currency at the spot exchange rate applicable on the date of the transaction. Monetary assets and liabilities in foreign currencies are translated into the functional currency at the closing rate on the reporting date. Exchange differences are recognised in profit or loss. This excludes foreign exchange differences on loans to the extent that these are used for hedging a net investment in a foreign operation. Such exchange differences are recognised directly in equity and reclassified to profit or loss for the period only on the disposal of the net investment. Deferred tax assets and liabilities arising from foreign currency translation differences are also recognised directly in equity. Non-monetary items that were measured based on historical cost in a foreign currency are translated at the exchange rate at the date of the transaction. Non-monetary items that are measured at fair value in a foreign currency are translated using the exchange rate at the date of fair value measurement.

- Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition of that foreign operation are recognised as assets and liabilities of the foreign operation and translated at the closing rate.
- Assets and liabilities of foreign operations are translated into euro at the closing rate. Income and expenses are translated at the average rate prevailing on the transaction date. For practical reasons, an average weighted exchange rate is used for the translation for exchange rates that do not strongly fluctuate. All resulting foreign currency translation differences are recorded in a separate component of equity. On the disposal of a foreign operation, the cumulative amount of the exchange differences relating to that foreign operation recognised in equity is reclassified from equity to profit or loss.

For the consolidated financial statements the following exchange rates were used for foreign currency translation:

USD	1 euro
Closing rate	1.12
Average rate	1.11

The subsidiary IHSE GmbH Asia Pacific Pte Ltd uses the US dollar as functional currency as US dollar settlement is used for the primary business relationships.

4.3 Revenue from contracts with customers

Pursuant to IFRS 15, revenue is recognised according to a principles-based five-step model that is to be applied for all contracts.

- Step 1: The contract with the customer is first identified.
- Step 2: The separate performance obligations in the contract must be identified.
- Step 3: The transaction price is determined, with explicit provisions being set out for the treatment of variable consideration, financing components, payments to customers and non-monetary exchanges.
- Step 4: The transaction price is to be allocated across the separate performance obligations. The base for this is the stand-alone selling price of the separate performance obligations.
- Step 5: Finally, revenue is recognised when the performance obligation is satisfied by the company. The precondition for this is the transfer of control of the goods or service to the customer.

When concluding a contract, it is necessary to determine whether the revenue resulting from the contract is to be recognised at a point in time or over time. This first involves using specific criteria to clarify whether control of the performance obligation is transferred over time. If this is not the case, revenue is to be recorded at the point in time when control is transferred to the customer. By contrast, if control is transferred over time, revenue may only be recognised over time if the percentage of completion can be reliably determined using input or output methods.

Revenue recognition

Revenue is measured based on the consideration specified in a contract with a customer. The Group recognises revenue when it transfers control of a good or service to a customer. The table below provides information on the type and the point in time at which performance obligations are fulfilled from contracts with customers and the associated revenue recognition principles.

Type of product/service	Type and time of performance obligation and significant payment terms	Revenue recognition pursuant to IFRS 15
Sale of measuring devices and KVM devices or KVM systems	Customers obtain control when the products leave (ex works) or were accepted from the company premises (transfer of risks and rewards). The invoices are issued as at this date. Invoices are generally payable within 14 to 30 days. For significant major customers, in some cases longer terms of payment (30-60 days, in exceptional cases up to 90 days) are granted. Price reductions and discounts are generally granted for these devices/systems. The contracts do not permit the customer to return the acquired products. Advance payments or partial advance payments for part of the total purchase price are agreed for large volume orders, new customers or for customers who are not covered by credit insurance.	Revenue is recognised when the products leave the company premises or are accepted from the company premises by the customer (transfer of control). Revenue is recognised less price reductions or cash discounts. Advance payments received are recognised under contract liabilities.
Production and sale of test rigs	Palas builds test rigs for customers. The test rigs are generally composed of standard measuring devices. Advance payments are typically agreed. Production time depends on the complexity. For standard test rights, the production time is generally not more than six months. In rare cases, the production time can involve a longer time period.	Standard test rigs: Revenue is recognised after dispatch of the test rigs (transfer of control). Customised test rigs: Revenue is recognised according to the cost-to-cost method over time for customised test rigs. The associated costs are recognised in profit or loss as incurred. Advance payments received are recognised under contract liabilities.
Repairs of devices	The Group provides repair services for devices as required.	Revenue is recognised at a point in time after rendering the service.
Sale of software configurations for test rigs (for additional analyses)	The Group sells software for test rigs which enables extended analyses. This software can either be acquired immediately with the test rig or subsequently. This concerns standard software and not customised production.	Sales revenue is recognised upon transfer or transmission of the software to the customer.
Revenue from extended warranties	In some instances subsidiaries provide separate extended warranty services to their customers (distinct service to the customers).	Revenue is recognised over the period in which the warranty services are provided. Advance payments received for warranty services still to be rendered are recognised as contract liabilities.

The Group generates revenue from the sale of standard measuring devices and related system solutions in the Environmental Technologies operating segment. In the Security Technologies operating segment the Group generates revenue from the sale of KVM devices and KVM systems. Revenue from product sales is recognised at the time of transfer of the significant risks and rewards related with the ownership of the goods sold to the buyer if it is reasonably certain that the economic benefits from the sale will flow to the Group. The amount of revenue recognised is based on the fair value of the consideration received or receivable less any cash discounts and rebates. The Group grants certain wholesalers (also referred to as sales partners or distributors) rebates or price discounts which are taken into account as part of revenue recognition.

Contracts with customers do not stipulate the right to return the goods within a certain period of time. Goods returns are only permitted within the regular warranty period due to defects.

The Group generally receives short-term advances from its customers. As a practical expedient, the Group does not adjust the amount of promised consideration for the effects of a significant financing component if, at contract inception, it expects that the period between the transfer of a promised good or service to a customer and the payment of this good or service by the customer will not exceed one year.

The Group generally issues a two-year warranty for the general repair of defects which existed at the date of the sale, as legally required. These assurances are recognised in accordance with IAS 37 Provisions (Note 28).

4.4 Employee benefits

Short-term employee benefits
Short-term employee benefits are expensed as soon as the related service is provided. A liability must be recognised for the amount to be paid if the Group currently has a legal or factual obligation to pay this amount on the basis of work done by an employee and the obligation can be reliably estimated.

Termination benefits
Termination benefits are expensed at the earlier of when the Group can no longer withdraw the offer of those benefits or when the Group recognises costs for restructuring. If benefits are not expected to be settled wholly within twelve months of the reporting date, then they are discounted.

Equity-settled share-based payments
The Group has a share option program enabling it to issue purchase rights to shares of the Parent Company to Executive Board members and employees of the Group and to managing directors and employees of subsidiaries.

The total amount to be recorded as expense for received work performance is determined by referring to the fair value of the share-based payment on the grant date. The fair value of share options is determined by taking into account the long-term performance targets using Monte Carlo simulation. The fair value determined on grant date is recorded as expense on a straight line basis over the vesting period (the period in which all issued vesting conditions must be satisfied). The offsetting entry is posted in equity. The vesting period generally starts on the grant date of the share options. The expense can nevertheless be recorded on an earlier date if the performance of the employee begins before the formal approval of the options being issued.

The Group recognises the remuneration expense before the start of the performance period, even if the issue date is after the start of employment. The expense for share-based payment is based on the estimated fair value of the share options as at the grant date in the period between the start of the performance and the grant date. As soon as the grant date is set, the estimated fair value is adjusted to ensure that the expense is prospectively recognised based on the actual fair value of the awarded equity instruments on the grant date.

For share allocations that cannot be vested, no expense is recorded, with the exception of equity-settled share-based payment plans whose vesting is dependent on a market condition or a non-vesting condition. These equity instruments are treated as being possible to vest regardless of whether a market condition or non-vesting condition occurs provided all other performance or employment conditions are satisfied.

Based on the non-market vesting conditions, the Company estimates the number of options and shares that are anticipated to be vested at the end of each reporting period. Possible changes relative to the original estimates are recorded in profit or loss with a commensurate offsetting entry in equity.

If the contractual terms of a remuneration agreement with settlement in equity instruments are modified, expenses are recognised, as a minimum, at the fair value of the equity instruments granted determined on the grant date, unless those equity instruments cannot be vested because of failure to satisfy a vesting condition (other than a market condition) that was specified at grant date. The Group also recognises the effects of modifications that increase the total fair value of the share-based payment or are otherwise beneficial to the employee. These are measured at the date of modification.

Expenses which arise in connection with an equity-settled remuneration agreement are recorded as personnel expenses.

Cash-settled share-based payments
For share-based payments which are settled in cash, the Group recognises a provision for the services rendered by employees. The Group measures the fair value of the liability on each reporting date and again on the settlement date. Changes in the entitlement are recorded in personnel expenses in the amount of the share attributable to the grant date fair value over the vesting period. The remaining change in the entitlement is reported in the financial result.

4.5 Finance income and costs

Interest income or expense is recognised in profit or loss using the effective interest method. The effective interest rate is the rate that exactly discounts estimated future cash flows over the expected life of the financial instrument or, when appropriate, a shorter period, to the net carrying amount of the financial asset or financial liability. For the calculation of interest income and expenses, the effective interest rate is applied to the gross carrying amount of the financial asset (where the credit status of this is not impaired) or to the amortised cost of the financial liability. For financial assets which are credit-impaired after initial recognition, interest income is calculated by applying the effective interest rate to the amortised cost of the financial asset. If the asset is no longer credit-impaired, the calculation of interest income returns to being made on a gross basis.

4.6 Government grants

Government grants are recognised if there is reasonable assurance that the grants will be made and the entity complies with the conditions attached to them. Expense-related grants are recognised as income over the period required to offset them against the corresponding expenses for which the grants are intended. Grants for an asset reduce the carrying amount of the asset. Government grants were awarded for research and development projects. There are no unfulfilled conditions or contingencies attached to these grants.

4.7 Current and deferred income taxes

The tax expense for a period comprises current and deferred taxes. Taxes are recognised in profit or loss, except to the extent that they relate to transactions recognised in other comprehensive income or directly in equity. In such cases, the tax is correspondingly recognised in other comprehensive income or directly in equity, respectively.

Current tax is measured as the amount expected to be reimbursed by, or paid to, the tax authorities. The amount is calculated on the basis of the tax rates and tax laws applicable as at the reporting date.

Deferred taxation is recognised for all taxable temporary differences as at the reporting date between the carrying amount of an asset or liability in the statement of financial position and its tax base, in applying the liability method.

Deferred taxes for all taxable temporary differences are recognised with the exception of the following.

No deferred taxes are recognised arising from the initial recognition of

- goodwill or
- an asset or liability in a transaction which:
- is not a business combination and
- at the date of the transaction, affects neither profit or loss for the period according to IFRS nor taxable profit.

No deferred taxes are recognised on taxable temporary differences,

- which relate to investments in subsidiaries, associates and shares in joint ventures,
- if the timing of the reversal of temporary differences can be controlled and
- it is probable that the temporary differences will not reverse in the foreseeable future.

A deferred tax asset is recognised for all deductible temporary differences, unused tax loss carry forwards and unused tax credits to the extent that it is probable that taxable profit will be available against which the deductible temporary difference, unused tax loss carry forwards and tax credits can be utilised.

The carrying amount of a deferred tax asset is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow the benefit of part or all of that deferred tax asset to be utilised. Previously unrecognised deferred tax assets are reassessed at the end of each reporting period and recognised to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

Deferred tax assets and liabilities are measured using the tax rates expected to be valid for the period in which an asset is realised or a liability is settled. The amount is calculated on the basis of the tax rates (and tax laws) applicable as at the reporting date. The combined tax rate is 31% (prior year: 31%). Deferred tax assets and deferred tax liabilities are offset against one another if the Company has a legally enforceable claim to set off actual tax assets against actual tax liabilities and these amounts relate to income taxes of the same tax subject, levied by the same tax authority.

4.8 Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation and accumulated impairment losses.

The carrying amount of an item of property, plant and equipment is derecognised on disposal or when no future economic benefits are expected from its use or disposal. The gain or loss arising from the derecognition of an item of property, plant and equipment is recognised in profit or loss.

The residual values, useful lives and depreciation methods are reviewed at the end of each fiscal year and adjusted as necessary. Items of property, plant and equipment are depreciated on a straight-line basis over their estimated useful life.

The estimated useful life can be seen in the following overview:

- Leasehold improvements: 10 years
- Office equipment: 10 to 13 years
- Other equipment, operating and office equipment: 3 to 10 years
- Technical equipment and machinery: 3 to 10 years

For the items of property, plant and equipment acquired in the course of acquisitions, the respective applicable remaining useful life is determined based on the aforementioned useful lives and the useful life already lapsed at the date of acquisition.

Impairment testing and the recognition of impairment losses and reversals are carried out according to the approach for intangible assets with finite useful life. For further information in this regard, please refer to Note 4.9.

4.9 Intangible assets and goodwill

Goodwill arising from business combinations is measured at cost less accumulated impairment losses.

Expenditure for research activities is recognised in profit or loss as incurred.

Development expenditure is capitalised only if development costs can be reliably measured, the product or process is technically and commercially feasible, future benefit is probable and the Group intends and has sufficient resources to be able to complete development and use or sell the asset. Capitalised development expenditure is measured at cost less accumulated amortisation and accumulated impairment losses.

Other intangible assets that are acquired by the Group and have finite useful lives are measured at cost less accumulated amortisation and any accumulated impairment losses.

Subsequent expenditures are capitalised only if they increase the future economic benefits of the asset to which they relate. All other expenditure, including expenditure on internally generated goodwill and brands, is recognised in profit or loss as incurred.

Impairment testing of goodwill is conducted annually; for other intangible assets with finite useful life and for property, plant and equipment impairment testing is conducted only if there is a specific indication of impairment. An impairment loss is recognised through profit or loss in the item "Amortisation, depreciation and impairment losses" in the statement of comprehensive income if the recoverable amount falls below the carrying amount of the asset. Recoverable amount is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. The recoverable amount is the higher of the net realisable value and value in use. The net realisable value is equal to the recoverable amount less costs to sell arising from the sale of an asset at arm's length. The value in use is calculated based on the estimated cash flows from the use and disposal of an asset using the discounted cash flow method. The cash flows are derived from the long-term corporate planning, which take account of historical developments and macroeconomic trends. The value in use of the relevant cash-generating unit is used to test the recoverability of goodwill.

Amortisation

Intangible assets are amortised on a straight-line basis over their estimated useful lives. Amortisation is generally recognised in profit or loss. Goodwill is not amortised. The estimated useful lives are as follows:

- Patents and trademarks: 10 years
- Capitalised development costs: 5 years
- Software: 3 years
- Licenses and other rights: 3 to 10 years
- Basis technology: 5-8 years
- Customer relationships: 10-15 years

Amortisation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

4.10 Inventories

Stocks of raw materials and supplies are recognised at the lower of average acquisition cost and realisable value. Raw materials and supplies are not written down below cost if the finished goods in which they will be incorporated are expected to be sold at least at cost. Finished goods and work in progress are reported at the lower of cost or net realisable value using individual calculations which are based on the current cost accounting. In addition to directly attributable material and production costs, cost includes an appropriate share of material and production overheads as well as amortisation and depreciation expenses related to production and production-related administrative expenses. Costs relating to general administration and interest on borrowings are not capitalised.

4.11 Financial instruments

Classification at initial recognition and the subsequent measurement of financial assets depend on the company's business model for managing its financial instruments and on the characteristics of the contractual cash flows of the financial instruments.

The Group's business model for the management of its financial instruments reflects how the entity manages its financial assets to generate cash flows. Depending on the business model, cash flows are realised through the collection of contractual cash flows ("hold to collect" business model), the sale of financial assets ("for sale" business model) or both ("hold to collect and for sale" business model).

In order to classify and measure a financial asset as "amortised cost" or "fair value through other comprehensive income", the cash flows must comprise "solely payments of principal and interest“ (SPPI) on the outstanding capital amount. This evaluation is designated as SPPI test and is conducted at the level of the individual financial instrument.

Initial recognition and measurement

A financial instrument is any contract that gives rise to a financial asset at one entity and a financial liability or equity instrument at another entity. If the timing of the trading date and the settlement date can diverge, the settlement date is applicable for initial recognition. The initial measurement of a financial instrument is at fair value. Transaction costs are generally included.

As at the reporting date, the Group has solely primary financial instruments and financial liabilities that are allocated to the "amortised cost" category and to the "hold to collect" business model.

The Group concluded interest rate cap contracts. For comments on interest rate risks, please refer to Note 31.

Subsequent measurement

Financial instruments at amortised cost are non-derivative financial instruments, which generate solely payments of principal and interest (cash flow characteristics) and are held for the collection of contractual cash flows (business model test). The Group's financial instruments at amortised cost comprise trade receivables and payables, other financial assets and liabilities, cash and cash equivalents as well as bank loans and other loans. After initial recognition, such financial instruments are measured at amortised cost using the effective interest method less any impairment losses. Amortised cost is calculated with due consideration being given to a premium or discount upon acquisition as well as fees or transaction costs which are an integral component of the effective interest rate. In the case of the current financial assets and financial liabilities, the carrying amount represents an appropriate approximation of the fair value.

Impairment loss

Impairment losses on financial assets carried at amortised cost are recorded based on expected credit losses (ECL). The ECLs are based on the difference between the cash flows contractually due and all cash flows that the Group expected to obtain, discounted using the approximate value of the original effective interest rate. The expected cash flows comprise cash flows from the sale of collateral held or other credit enhancements, which are an integral component of the loan agreement. A three-stage model is used for the allocation of impairment loss allowances:

Stage 1: Expected credit losses over the next twelve months

Stage 1 includes all contracts which have not experienced a significant increase in credit risk since initial recognition. This typically includes new contracts and those with payments due in less than 31 days. Expected credit losses are recorded for a default within the next twelve months.

Stage 2: Expected credit losses over the lifetime – no credit impairment

If a financial asset experiences a significant increase in credit risk but it is not credit-impaired, it is allocated to stage 2. A simplified approach is used for trade receivables in which these receivables are already allocated to stage 2 upon initial recognition. The assessment to determine whether a financial asset has experienced a significant increase in credit risk is based on an assessment of probability of default conducted at least quarterly. This takes account of external rating information and internal information on the credit quality of the financial asset. Expected credit losses are recorded over the lifetime of the financial assets as an impairment loss.

Stage 3: Expected credit losses over the lifetime – credit impairment

If a financial asset is credit-impaired or in default, it is allocated to stage 3. Expected credit losses are recorded over the lifetime of the financial assets as an impairment loss. Objective evidence that a financial asset is credit-impaired or in default includes a past-due of 91 days or more and further internal and external information which indicates that the Group is not able to collect the outstanding contractual cash flows in the full amount, taking into account any credit enhancements. A financial asset is written off if there is no realistic expectation of recovering contractual cash flows. The effective interest income is determined based on gross carrying amount for stage 1 and 2. As soon as a financial asset is credit-impaired and allocated to stage 3, the effective interest income is calculated based on the net carrying amount (gross carrying amount less expected credit loss allowance). Expected credit losses are calculated based on global probabilities of default. Impairment losses are recorded in profit or loss. Please refer to Note 31 for information on the credit risk of the Group.

Derecognition of financial assets

The Group derecognises financial assets when the contractual rights to the cash flows from the financial asset expire or when the contractual right to the cash flows from the financial asset is transferred and substantially all risks and rewards of ownership of the financial assets are transferred.

4.12 Share capital

Ordinary shares

The costs directly attributable to the issue of ordinary shares are recognised as a reduction in equity. Income taxes on equity transaction costs are recognised in accordance with IAS 12.

Share loan

Own shares held by the Company by means of an uncompensated share loan are not recognised as treasury shares as the Company is not entitled to rights arising from these shares. The return of shares held on loan takes place until the end of 2020, with the Company not receiving/ or incurring any income or expenses or other financial advantages or disadvantages therefrom.

4.13 Provisions

Provisions are determined by discounting the expected future payment obligations at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognised as finance cost.

Warranties

A provision for warranties is recognised when the underlying products or services are sold. The provision is based on historical warranty data and a weighting of all possible outcomes against their associated probabilities.

4.14 Leases

A lease is an agreement for the right to use an asset (leased asset) for an agreed period of time against payment.

Until 31 December 2018 the Group defined a lease relationship as an agreement in which the lessor conveys to the lessee the right to use an asset for an agreed period of time. According to IAS 17, the beneficial ownership of a leased asset is allocated to the lessee if the lessee bears substantially the risks and rewards incidental to ownership arising from the leased asset. If beneficial ownership is allocable to the Group as lessee, the asset is recognised at the date of the commencement of use either at the lower of fair value or the present value of minimum lease payments. A lease liability is recognised in the same amount under non-current liabilities. Subsequent measurement occurred at amortised cost using the effective interest method. The depreciation methods and useful lives corresponded to comparable acquired assets.

From 1 January 2019 onward the Group as lessee recognises at present value all leases for right-of-use assets and liabilities for assumed financial obligations in the statement of financial position. The lease liabilities comprise the following lease payments:

- fixed payments less lease incentives to be provided by the lessor,
- variable lease payments that depend on an index or an interest rate,
- expected payments under residual value guarantees,
- the exercise price of a purchase option if the option being exercised was assessed as reasonably certain and
- penalties for the termination of the lease if its term takes account that a termination option is utilised.

Lease payments are discounted using the interest rate implicit in the lease if this can be determined. Otherwise discounting uses the incremental borrowing rate.

Right-of-use assets are measured at cost as follows:

- Lease liability,
- for which lease payments (less lease incentives received) are made at or before the commencement date
- initial direct costs and
- asset retirement obligations.

Subsequent measurement is at amortised cost. Depreciation of right-of-use assets is recorded on a straight-line basis over the term of the lease.

For low-value leased assets and for short-term leases (less than twelve months), use is made of the practical expedients and the payments are recognised as an expense on a straight-line basis. The new regulations are not applied to leases for intangible assets. For agreements that include lease components and non-lease components, use is made of the option to not separate the components.

Leases, especially of real estate, in some cases include extension options and termination options. For the determination of the lease terms, all circumstances and conditions are considered that offer a financial incentive to exercise extension options or to not exercise termination options. Term modifications arising from such options for the lease term being exercised/not being exercised are only considered if they are reasonably certain.

Where the Group is lessor for an operating lease, it recognises the leased item as asset at amortised cost under property, plant and equipment. The lease payments collected in the period are reported in revenue.

4.15 Fair value measurement

Assets and liabilities are measured at **fair value** upon initial recognition and for subsequent measurement.

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. For the measurement of fair value, it is assumed that the transaction in which the sale of the asset or the transfer of the liability takes place either:

- on the principal market for the asset or the liability, or
- the most advantageous market for the asset or liability in the absence of a principal market.

The Group must have access to the principal market or the most advantageous market. The fair value of an asset or liability is measured using the assumptions which would have been taken as the basis for market participants in determining the price for the asset or the liability. In this regard it is assumed that market participants act in line with their best economic interest.

For the measurement of the fair value of a non-financial asset, the ability of the market participant to generate economic benefits is considered by the highest and best use of the asset or by its sale to another market participant who finds the highest and best use for the asset.

The Group uses valuation techniques which are appropriate for the respective circumstances and for which sufficient data is available for the measurement of fair value. This involves maximizing the use of relevant observable inputs and minimizing the use of non-observable inputs.

All assets and liabilities, for which the fair value is determined or presented in the financial statements, are classified according to the fair value hierarchy described below based on the lowest level input that is significant to the entire measurement at fair value:

- Level 1: quoted prices (unadjusted) on active markets for identical assets or liabilities.
- Level 2: Valuation methods for which the lowest level input that is significant to the entire measurement at fair value is directly or indirectly observable on the market
- Level 3: Valuation methods for which the lowest level input that is significant for the entire measurement at fair value is not observable on the market

For assets and liabilities that are recorded on a recurring basis in the financial statements, the Group identifies whether reclassification between the hierarchy levels has occurred by examining the classification (based on the lowest level input that is significant to the entire measurement of fair value) at the end of each reporting period.

In order to satisfy the disclosure requirements on fair value, the Group has defined groups of assets and liabilities based on their nature, characteristics and risks as well as the levels of the fair value hierarchy explained above.

4.16 Other financial obligations

Other financial liabilities are not recorded in the statement of financial position. They arise if there is a legal or factual external obligation for the Group on the reporting date. Measurement is at fair value on initial recognition. Existing rental and lease commitments are recognised under IFRS 16. Exceptions represent rental and lease commitments outside of the scope of IFRS 16. The contingent liabilities are measured at the settlement value.

4.17 Summary of the measurement policies

Provided no impairment losses exist, the measurement policies of the Group are summarised and presented for practical expediency as follows:

Item in the statement of financial position	Measurement
Assets	
Intangible assets	
with finite useful life	Amortised cost
with indefinite useful lives	Impairment only approach
Property, plant and equipment (including right-of-use assets)	Amortised cost
Trade receivables	Amortised cost
Inventories	Measurement at the lower of cost and net realisable value
Cash and cash equivalents	Amortised cost
Accrued expenses	Amortised cost
Other financial assets	Amortised cost
Other non-financial assets	Amortised cost
Deferred tax assets	They are measured (without discounting) at the tax rates that apply to the period when the asset is realised or the liability is settled.

Item in the statement of financial position	Measurement
Liabilities	
Liabilities to banks	Amortised cost
Deferred tax liabilities	They are measured (without discounting) at the tax rates that apply to the period when the asset is realised or the liability is settled.
Income tax liabilities	Expected payment to tax authorities which is based on tax rates that apply or will shortly apply on the reporting date.
Trade payables	Amortised cost
Deferred income	Amortised cost
Other provisions	Expected discount amount which will result in an outflow of resources
Other financial liabilities (including lease liabilities)	Amortised cost

4.18 New standards and amendments

Impact of new accounting standards

The Group has applied new financial reporting standards for the first time in the reporting period. The following overview includes all standards relevant for the Group.

New and amended standards and interpretations – that must be applied in the EU

Rule	Mandatory application
IFRS 16 Leases	01.01.2019

As part of the new IFRS 16, accounting for leases is newly regulated such that future obligations regarding lease payments must now be presented as liabilities in the statement of financial position. The initial application of IFRS 16 resulted in € 606 k in lease liabilities being recorded as at 1 January 2019. This item is matched by newly capitalised right-of-use assets of € 606 k under property, plant and equipment. Of the lease liabilities, € 316 k were due in the reporting period. The transition was carried out using the modified retrospective approach. The comparative figures of the previous periods were not restated. On the date of initial application, no new assessment was made to determine whether a contract is, or contains, a lease. For lease arrangements previously classified as operating leases, on initial application, the Group recognises the lease liability at the present value of outstanding lease payments in applying the incremental borrowing rate applicable on the date of initial application for discounting. On initial application, the right of use to leased assets are measured at the amount of the lease liability. Initial direct costs were not included in the measurement of the right-of-use asset on the date of initial application. The current state of knowledge at the date of initial application was taken into account when exercising judgment. The Group exercises the option of excluding intangible assets from the scope of application of IFRS 16 and treats individual leases ending in the reporting period in accordance with the exemption rules for short-term leases. This option will also be applied to short-term leases which commence from 1 January 2019.

Based on the operating lease obligations as at 31 December 2018, the reconciliation of the opening statement of financial position figures of lease liabilities as at 1 January 2019 was as follows:

in € k	01.01.2019
Operating lease obligations according to IAS 17 (in the prior year's notes under other financial obligations)	734
Service components	(110)
Gross lease liabilities	**624**
Discounting	(18)
Lease liabilities	**606**
Additional lease liability due to the initial application of IFRS 16	**606**

The lease liabilities were discounted using the incremental borrowing rate as at 1 January 2019. The weighted average interest rate amounted to 3%. The effects as at the date of transition are summarised below.

in € k	01.01.2019
Right-of-use asset for property, plant and equipment	606
Lease liabilities	606

Information on the capitalised right-of-use assets from leases can be found in Note 17and information on lease liabilities in Note 26.

New standards (not yet applied)

A number of new standards is to be applied in the first reporting period for fiscal years starting after 1 January 2019, early application is possible.

The IASB or the IFRS Interpretations Committee has issued the following standards, amendments of standards or interpretations; however, application is not yet mandatory or the IFRS endorsement by the EU is not yet complete. The following IFRS or interpretation that are relevant for the Group have not yet been applied:

Standards and interpretations endorsed by the EU but not yet mandatory

Rule	Mandatory application	Impact on BCM
Amendments to IFRS 9, IAS 39 and IFRS 17: Interest rate benchmark reform (issued 26 September 2019)	01.01.2020	None
Amendments to IAS 1 and IAS 8: Definition of material (issued 31 October 2018)	01.01.2020	None
Amendments to references to the conceptual framework in IFRS Standards (issued 29 March 2018)	01.01.2020	None

5. Use of judgments, estimates and assumptions

Judgments that affect the amounts in the financial statements are in some instances necessary for the application of the accounting methods. In addition, for the preparation of the financial statements, forward-looking assumptions and estimates must be made that may have an impact on the amounts stated for items of the statement of financial position as well as the amount for income and expenses. Actual values may differ from these estimates. The most important forward-looking assumptions and other sources of estimation uncertainty that may require future material adjustments are explained below.

5.1 Judgments

Development costs

Development costs are capitalised in accordance with the presented accounting methods. Initial capitalisation of costs is based on the Group's assessment that technical and economic feasibility has been demonstrated. For instance, technical feasibility is assessed using the development of prototypes or feasibility studies. The economic feasibility is assessed using project planning which includes the necessary material costs and personnel expenses and their financing.

5.2 Estimates and assumptions

The most important forward-looking assumptions and other major sources of estimation uncertainty on the reporting date, that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next fiscal year are explained below.

Equity-settled share-based payments

The Group has analysed the conditions for its share-based payments in order to determine the respective classification in accordance with IFRS 2. The share options issued are subject to conditions determining the vesting of the share options by the beneficiaries. Based on this analysis, the Group has identified that two settlement scenarios exist. One scenario would be viewed as full cash settlement, the other scenario as full settlement using equity instruments. In light of the Executive Board's intention to settle by issuing new shares, the Group concludes that it does not have a present obligation for cash settlement and thus recognises that the share-based payment is to be settled using equity instruments. This management evaluation is undertaken again at each reporting date. For further information, please refer to Note 36.

Within the Group, the expenses arising from granting company share options to employees are measured at the fair value of these equity instruments at the grant date. In order to estimate the fair value of share-based payments, it is necessary to determine the best suited valuation method. The Group uses Monte Carlo simulation for this purpose. This is dependent on the grant conditions. For this estimation, it is also necessary to determine suitable input parameters to incorporate into this valuation method, in particular the expected volatility derived from comparable listed companies and the expected term of the option, dividend yield and risk-free interest rate. The assumptions and method used to estimate the fair value are presented in Note 36.

Cash-settled share-based payments

For share-based payments which are settled in cash, the Group recognises a provision for the services rendered by employees. The Group measures the fair value of the liability on each reporting date and again on the settlement date. Changes in the entitlement are recorded in personnel expenses in the amount of the share attributable to the grant date fair value over the vesting period. The remaining change in the entitlement is reported in the financial result.

The component attributable to personnel expenses is measured at fair value at the grant date. In order to estimate the fair value of share-based payments, it is necessary to determine the best suited valuation method. The Group uses the Black-Scholes model for this purpose. This is dependent on the grant conditions. For this estimation, it is also necessary to determine suitable input parameters to incorporate into this valuation method, in particular the expected volatility derived from comparable listed companies and the expected term, dividend yield and risk-free interest rate. The assumptions and method used to estimate the fair value are presented in Note 36.

Deferred taxes

Deferred tax assets for unused tax loss carry forwards are currently not recorded in the Group. No deferred taxes were recognised for these matters as future positive taxable earnings at the date of preparing the financial statements were not sufficiently concrete. This assumption is reviewed by management on each reporting date.

Business combinations

Business combinations are recognised using the acquisition method. The initial recognition of goodwill from a business combination is measured at cost which is measured as the excess of the cost of the acquisition over the fair value of the acquired identifiable assets, liabilities and contingent liabilities. Costs incurred within the framework of the business combination are recognised as expense and presented in other operating expenses.

The determination of the respective fair value of the acquired assets and liabilities on the acquisition date is subject to significant estimation uncertainty. For the identification of intangible assets, depending on the type of the intangible asset and the complexity of determining fair value, either opinions of external valuation experts are drawn upon or the fair value is determined in-house using an appropriate valuation method for the respective intangible asset, the basis of which is typically used for the forecast of overall expected future generated cash and cash equivalents. These measurements are closely related to management's assumptions and estimates made regarding the future development of the respective assets and the discount rate to be applied.

In respect of the acquisition of Palas GmbH, the Group entered into a purchase commitment with the existing owners. For the presentation of this obligation, the Group uses the method of anticipated acquisition, which presents the acquisition as if the purchase option had already been exercised. This means that the shares underlying the purchase option are already deemed acquired as at the acquisition date and consequently, no non-controlling interests are presented. In respect of the financial liabilities recorded in this regard, please refer to Note 26.

Provisions

A provision is recognised when the Group has an obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation (Note 4.13and 28). Such estimates are subject to significant uncertainty.

II. Explanatory notes on the statement of comprehensive income

6. Alternative performance measures

In addition to the information provided as part of these financial statements, management uses additional performance measures to manage the Group. These include the **pro forma consolidated statement of comprehensive income and other alternative performance measures**.

Pro forma consolidated statement of comprehensive income

The income and expenses of IHSE are recorded in the consolidated statement of comprehensive income solely for one month of the reporting period due to the date that control was obtained in December 2019. The same applies for the income and expenses of Palas (acquired in December 2018) for the prior-year period in the short fiscal year 2018 (August to December). As the informative value of the consolidated statement of comprehensive income, particularly its suitability for deriving forecasts, is limited, the Executive Board analyses the earnings figures on a pro forma basis. The figures in the consolidated statement of comprehensive income are presented as if Palas had already been acquired as at 1 August 2018 and IHSE as at 1 January 2019.

in € k	01.01.2019 - 31.12.2019
Revenue	**54,290**
Increase/ (decrease) in finished goods and work in progress	(22)
Other own work capitalised	769
Total output	**55,037**
Cost of materials	(15,167)
Gross profit	**39,870**
Personnel expenses	(15,695)
Other operating expenses	(8,800)
Expected credit loss allowances on trade receivables	(2)
Other operating income	612
EBITDA	**15,985**
Depreciation of property, plant and equipment and amortisation of intangible assets	(1,454)
EBITA	**14,531**
Amortisation of intangible assets identified within the scope of first-time consolidation	(8,633)
Finance costs	(2,444)
Finance income	62
Financial result	(2,381)
Earnings before tax	**3,518**
Income tax	(2,204)
Profit (or loss)	**1,314**

When calculating these amounts, management assumed that the adjustments to the fair values that were preliminarily determined as at the date of acquisition of IHSE would have also been applicable had the acquisition taken place as at 1 January 2019, the financing structure following acquisition had already existed at the beginning of the year and the costs of acquisition had not been incurred in the reporting period.

Adjusted and other alternative performance measures

The Group provides information on earnings before interest and tax (**adjusted EBIT**) and earnings before interest, tax and depreciation and amortisation (**adjusted EBITDA**). The percentage that these figures amount to in terms of revenue is determined as the respective margin (**adjusted EBITDA margin** and **adjusted EBIT margin**). In addition, information is provided on the **adjusted earnings per share.** Alongside **revenue**, management uses these performance indicators to manage the Company and regards them as significant for the understanding of the Group's financial performance. The alternative performance measures are not defined in the IFRS and the definitions of the Group are potentially not comparable with similarly designated performance indicators of other companies.

Management eliminates expenses from **share-based payment** according to IFRS 2.51 (a) from the performance indicators relevant for management of the Company. The reason for this is that these are not financially incurred by the Company but by its shareholders. The issuance of options and shares does not represent an outflow of resources for the Group. Consequently, management eliminates the relevant expenses from share-based payment for the analysis of the financial performance of the Group. Please refer in this regard to Note 36.

As non-controlling shares are not shown owing to the application of the anticipated acquisition method, financial liabilities and provisions for the remaining 30% of shares of Palas are recorded in the Group's statement of financial position. Their increase is recorded as part of share-based remuneration in part in personnel expenses as well as in the financial result. As a result, the Group subtracts the **financial result from the NCI put** attributable to this item from the adjusted earnings.

The earnings figures for the analysis of the Group's performance are also adjusted for the **costs of completed M&A transactions according to IFRS 3.53.** Such costs are initially incurred only for purchases of companies. Owing to the business model of BCM AG, these costs do have a recurring character but respectively amount to zero when assuming an unchanged consolidated group. Further, in the opinion of group management, such expenses were to be recorded as acquisition costs, which conventionally would need to be capitalised for acquisitions and should thus not represent an expense. Please refer in this regard to Note 33.

Amortisation expenses on intangible assets identified as part of purchase price allocations for acquisitions (**PPA amortisation**) are deducted for the purposes of value-enhancing corporate management and from the basis for figures according to IFRS. These amortisation expenses relate to accounting entries at the capital consolidation level; that is independently of the business figures of the separate group companies. These amortisation expenses are not found in any of the individual annual financial statements of the group companies. Expenses are recorded solely at the level of consolidation. The expense has no impact on liquidity, has no relevance for the Group's capacity to distribute dividends and no such replacement investment spending is incurred for this in the future in cash flows. Considerably lower earnings due to PPA amortisation according to IFRS result solely from the fact that an M&A transaction has taken place. A considerably poorer presentation of the financial performance arises solely due to capital consolidation. As a result it is also possible that a subsidiary develops considerably more favourably than budgeted but it is nevertheless still necessary to recognise substantial amortisation expenses in the consolidated financial statements due to the purchase price allocation. As income from the **reversal of deferred tax liabilities** on the PPA amortisation is accrued in the consolidated statement of comprehensive income, this is consequently also eliminated in the commensurate amount for the determination of the post-tax performance indicators.

Pursuant to IFRS, full consolidation is undertaken, that is the collective presentation of all income and expenses of all majority interests from the date that control is obtained. As a consequence, for acquisitions completed during the fiscal year, only a part of the business volume is presented in the consolidated statement of comprehensive income. In order to provide users of these financial statements with more information content, the performance indicators are presented **pro forma** as supplement. Under the pro forma approach, expenses and income from subsidiaries acquired in the reporting period are consolidated from the date of the period in which the respective acquisition took place. Thus, IHSE was included in the consolidated statement of comprehensive income from 1 January 2019. In some instances, estimates of management are also taken into consideration in this regard. Since the prior-year period was a short fiscal year, a pro form presentation thereof would not be instrumental for comparison and thus its inclusion was waived.

Determination of adjusted EBITDA

in € k	Pro forma 01.01.2019 - 31.12.2019	From date of control obtained 01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Earnings before tax	**3,518**	**(3,387)**	**(1,577)**
Financial result	2,381	1,124	47
Amortisation, depreciation and impairment losses	10,086	3,534	216
EBITDA	**15,985**	**1,270**	**(1,314)**
Share-based payment	180	180	-
Cost of purchase of subsidiaries	-	1,320	471
Adjusted EBITDA	**16,166**	**2,770**	**(843)**
Adjusted EBITDA margin	*29.8%*	*16.7%*	*(76.8%)*

Determination of adjusted EBIT

in € k	Pro forma 01.01.2019 - 31.12.2019	From date of control obtained 01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Earnings before tax	**3,518**	**(3,387)**	**(1,577)**
Financial result	2,381	1,124	47
EBIT	**5,899**	**(2,264)**	**(1,529)**
PPA amortisation expenses*	8,633	2,714	188
Share-based payment	180	180	-
Cost of purchase of subsidiaries	-	1,320	471
Adjusted EBIT	**14,713**	**1,950**	**(871)**
Adjusted EBIT margin	*27.1%*	*11.8%*	*(79.3%)*

* Amortisation expenses on intangible assets identified in the purchase price allocation for acquisitions

Determination of adjusted earnings and adjusted earnings per share

in € k	Pro forma 01.01.2019 - 31.12.2019	From date of control obtained 01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Profit or loss	**1,314**	**(3,823)**	**(1,636)**
Share-based payment	180	180	-
Financial result from NCI Put	354	354	-
Cost of purchase of subsidiaries	-	1,320	471
PPA amortisation expenses*	8,633	2,714	188
Thereon attributable deferred income taxes	(2,375)	(772)	(59)
Adjusted earnings	**8,106**	**(28)**	**(1,035)**
Number of outstanding shares (units)	6,195,579	2,905,836	2,502,510
Adjusted earnings per share (€)	**1.31**	**(0.01)**	**(0.41)**

* Amortisation expenses on intangible assets identified in the purchase price allocation for acquisitions

As part of financing the acquisition of IHSE, a cash contribution capital increase and an in kind capital contribution increase were conducted in December 2019. As a result of the issuance of shares of BCM AG, own shares from the share loan were retransferred. The effects of these transactions on the number of outstanding shares was taken into account in the pro forma perspective.

7. Revenue

Disaggregation of revenue from contracts with customers

The Group generates revenue mostly from the sale of measuring devices and test devices in the Environmental Technologies business segment and from the sale of KVM devices and KVM systems in the Security Technologies business segment. The following table breaks down the Group's revenue from contracts with customers (IFRS 15) according to the significant product and service lines, principal geographical markets and timing of revenue recognition.

Income from the short-term leasing of devices

In addition to revenue from contracts with customers pursuant to IFRS 15, under revenue the Group generates income from the short-term leasing of devices according to IFRS 16 (prior year: IAS 17): This is separately presented in the following overview.

	Environmental Technologies		Security Technologies		Total	
in € k	2019	2018	2019	2018	2019	2018
External customers						
Products sold	17,497	1,332	2,572	-	20,069	1,332
Services rendered	238	21	284	-	522	21
External gross revenue	**17,736**	**1,353**	**2,855**	**-**	**20,591**	**1,353**
Revenue reductions	(3,958)	(282)	(129)	-	(4,087)	(282)
Revenue from contracts with customers	**13,778**	**1,071**	**2,726**	**-**	**16,504**	**1,071**
Short-term leasing of devices	58	26	-	-	58	26
Revenue	**13,836**	**1,098**	**2,726**	**-**	**16,561**	**1,098**
Timing of revenue recognition						
Point in time	13,540	1,050	2,442	-	15,982	1,050
Over time	238	21	284	-	522	21
Revenue from contracts with customers	**13,778**	**1,071**	**2,726**	**-**	**16,504**	**1,071**
Short-term leasing of devices	58	26	-	-	58	26
Revenue	**13,836**	**1,098**	**2,726**	**-**	**16,561**	**1,098**
Principal geographical markets						
Germany	4,117	509	215	-	4,332	509
Rest of Europe	4,658	242	307	-	4,966	242
Rest of world	5,002	321	2,204	-	7,206	321
Revenue from contracts with customers	**13,778**	**1,071**	**2,726**	**-**	**16,504**	**1,071**
Short-term leasing of devices	58	26	-	-	58	26
Revenue	**13,836**	**1,098**	**2,726**	**-**	**16,561**	**1,098**

Contract balances

The following table shows receivables and contract liabilities from contracts with customers:

in € k	31.12.2019	31.12.2018
Trade receivables	5,850	1,196
Contract liabilities	(665)	(266)

Contract liabilities include advance payments received from customers. Advance payments are of short-term nature. Of these, € 259 k is attributable to test devices, € 112 k to other measuring devices and € 294 k to KVM devices.

The amount of € 266 k included in contract liabilities as at 31 December 2018 was recorded in revenue in fiscal year 2019.

Contract liabilities of € 275 k were acquired as part of the acquisition of IHSE. Of this amount, € 14 k was recorded as revenue in the reporting period.

8. Own work capitalised

Of own work capitalised, € 443 k (prior year: € 0 k) is attributable to development costs subject to capitalisation according to IAS 38. These development costs relate in particular to investments in the development of sensory measurement instruments.

9. Cost of materials

Cost of materials break down as follows:

in € k	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Cost of raw materials, supplies and purchased goods	3,741	208
Cost of purchased services	558	12
Cost of materials	**4,299**	**220**

10. Personnel expenses

Personnel expenses break down as follows:

in € k	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Wages and salaries	5,839	690
Social security and post-employment benefits	785	59
Share-based payment	180	-
Personnel expenses	**6,803**	**748**

For share-based payment, please refer to Note 36.

11. Other operating expenses

Other operating expenses break down as follows:

in € k	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Costs from M&A transactions	1,320	471
Advertising and travel expenses	605	65
Due diligence costs	228	441
Preparation and audit of financial statements	430	199
Other legal and consulting fees	458	81
Foreign exchange losses	164	-
Insurance and contributions	143	24
Supervisory Board remuneration	143	83
Incidental transaction costs	128	88
Expenses for leases of low value assets	136	-
IT costs	100	19
Other expenses from leases (incidental costs, service components)	59	-
Expenses for short-term leases	2	-
Occupancy costs (expenses from operating leases)	-	70
Other costs	1,643	106
Other operating expenses	**5,558**	**1,647**

The costs of M&A transactions in the reporting period result mainly from the real estate property tax, legal advice and due diligence for the purchase of IHSE. Please refer in this regard to Note 33. By contrast, the due diligence costs relate to the detailed examination of potential acquisitions which were either terminated in the reporting period or still in progress as at the reporting date.

The year-end closing expenses relate in particular to the preparation and audit of the purchase price allocation and the accounting entry of the acquisition and the introduction of financial reporting pursuant to IFRS for the IHSE companies.

12. Other operating income

Other operating income break down as follows:

in € k	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Income relating to other periods	143	-
Investment grants IAS 20	120	11
Benefits in kind settled for vehicles	65	-
Foreign currency translation gains	30	-
Reimbursement entitlements for due diligence costs	-	247
Miscellaneous other operating income	33	6
Other operating income	**390**	**263**

13. Amortisation, depreciation and impairment losses

This item includes depreciation of property, plant and equipment and amortisation of intangible assets of € 3,534 k. Thereof € 820 k (prior year: € 28 k) relates to depreciation of property, plant and equipment and right-of-use assets from leases as well as amortisation of intangible assets which were not identified in the course of the purchase price allocation for the acquisition of subsidiaries. Depreciation of right-of-use assets from leases amount to € 338 k.

Further, amortisation and impairment of intangible assets identified in the course of acquisition of subsidiaries are included. These amounts are attributable to the capitalised intangible assets as follows:

in € k	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Basis technology	925	58
Order book	900	75
Customer relationships	648	40
Trademarks	241	14
Total	**2,714**	**188**

14. Financial result

Finance costs include interest expenses from financial liabilities measured at amortised cost (€ 807 k), interest expenses from leases(€ 19 k), expense from unwinding the discount on the put liability on 30% of shares in Palas (€ 109 k) and remeasurement expense (€ 245 k) of the provision relating to this.

15. Income taxes

Income taxes recorded in profit or loss for the period break down as follows:

in € k	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Current tax expense		
Current year	1,292	118
Deferred tax income		
Reversal of temporary differences	(856)	(59)
Total	**436**	**59**

Change in deferred tax liabilities/assets

Deferred tax liabilities at the level of individual items of the statement of financial position are shown in the following overview:

in € k	Other intangible assets and order book
01.08.2018	-
Acquired through business combinations	3,473
Included in profit or loss	(59)
31.12.2018 Deferred tax liabilities	**3,415**
Acquired through business combinations	15,838
Included in profit or loss	(697)
31.12.2019 Deferred tax liabilities	**18,556**

Deferred tax assets at the level of individual items of the statement of financial position are shown in the following overview:

in € k	Goodwill
01.08.2018	-
31.12.2018 Deferred tax assets	**-**
Acquired through business combinations	542
Included in profit or loss	0
Recognised in OCI	-
31.12.2019 Deferred tax assets	**542**

As part of the elimination of inter-company profit/ or loss in inventories, the deferred tax assets are as follows:

in € k	Inventories
01.08.2018	-
31.12.2018 Deferred tax assets	**-**
Acquired through business combinations	281
Included in profit or loss	159
Recognised in OCI	-
31.12.2019 Deferred tax assets	**440**

Deferred tax assets thus amount to € 982 k (prior year: € - k)

Reconciliation of effective tax rate

The differences between the expected income tax expense based on the calculated tax rate and the actual income tax expense can be seen in the following table. The applied tax rate is based on the domestic group income tax rate.

The domestic group income tax rate comprises the corporation tax rate of 15% (prior year: 15%) plus the solidarity surcharge of 5.5% (prior year: 5.5%) and a trade tax rate of 15.1% (prior year: 15.1%). The tax rate for trade tax is determined by the average trade tax multiplier of 430% (prior year: 430%).

Deferred taxes for the assets identified at IHSE were recognised based on the tax rates of 17% to 28%. Deferred taxes for the assets identified at Palas were recognised based on the tax rate of 31% (prior year: 31%).

Reconciliation statement for income tax

in € k	01.01.2019 - 31.12.2019		01.08.2018 - 31.12.2018	
Earnings before tax	**(3,387)**		**(1,577)**	
Tax based on domestic tax rate of the entity	**1,046**	**31%**	**487**	**31%**
Tax-exempt income	113	3%	11	1%
Tax rate effects	(22)	(1%)	-	-
Permanent differences	(219)	(6%)	-	-
Non-deductible operating expenses	(320)	(9%)	(26)	(2%)
Losses in the current year for which no deferred tax asset was recognised	(1,034)	(31%)	(531)	(34%)
Income taxes	**(436)**	**(13%)**	**(59)**	**(4%)**

Unrecognised deferred tax assets

Group entities have tax loss carry forwards of € 6,886 k as at the reporting date (prior year: € 3,177 k). Of this, a tax effect of € 2,182 k would arise (prior year: € 1,009 k). No deferred tax assets were recognised for these tax loss carry forwards as future positive taxable earnings are not sufficiently concrete as at the date of preparing the financial statements.

16. Earnings per share

The following table presents the calculation for earnings per share.

	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Profit or loss for the period (€ k)	(3,823)	(1,636)
Number of outstanding shares (units)	2,905,836	2,502,510
Earnings per share (€)	**(1.32)**	**(0.65)**

The adjusted pro forma earnings per share is as follows. For further information in this regard, please refer to Note 6.

	01.01.2019 - 31.12.2019
Pro forma adjusted earnings (€ k)	8,106
Number of outstanding shares (units)	6,195,579
Pro forma adjusted earnings per share (€)	**1.31**

III. Explanatory notes on the statement of financial position

17. Property, plant and equipment

Property, plant and equipment is broken down as follows:

in € k	Land and buildings	Technical equipment and machinery	Operating and office equipment	Total
Cost				
01.08.2018	**-**	**-**	**5**	**5**
Acquisitions through business combinations	-	514	264	778
Additions	-	26	8	35
Disposals	-	-	(0)	(0)
31.12.2018	**-**	**541**	**277**	**818**
Acquisitions through business combinations	8,084	493	718	9,296
Additions	-	719	203	922
Disposals	-	(137)	(0)	(137)
Net exchange differences	-	-	0	0
31.12.2019	**8,084**	**1,616**	**1,199**	**10,899**
Accumulated depreciation and impairment losses				
01.08.2018	**-**	**-**	**1**	**1**
Depreciation and impairment losses	-	13	7	19
Disposals	-	-	-	-
31.12.2018	**-**	**13**	**8**	**20**
Amortisation, depreciation and impairment losses	18	232	117	366
Disposals	-	(50)	-	(50)
Net exchange differences	-	-	0	0
31.12.2019	**18**	**195**	**125**	**337**
Carrying amounts				
01.08.2018	-	-	4	4
31.12.2018	-	528	269	797
31.12.2019	**8,066**	**1,422**	**1,074**	**10,562**

There were no indicators of a need for impairment of property, plant and equipment in the reporting period. For information on collateral pledged for liabilities in respect of fixed assets, please refer to Note 26.

Right-of-use assets from leases

The following shows right-of-use assets from leases which are presented under non-current assets.

in € k	Land and buildings	Technical equipment and machinery	Total
Cost			
01.01.2019	**-**	**-**	**-**
Recognition of right-of-use assets arising from initial application of IFRS 16	503	103	606
Acquisitions through business combinations	106	140	247
Additions	177	69	246
31.12.2019	**786**	**312**	**1,098**
Accumulated depreciation and impairment losses			
01.01.2019	**-**	**-**	**-**
Depreciation and impairment losses	268	70	338
31.12.2019	**268**	**70**	**338**
Carrying amounts			
01.01.2019	-	-	-
31.12.2019	**518**	**242**	**760**

The Group leases land and buildings primarily as office space and as production and storage space. As at the reporting date, three leases existed for real estate with a remaining term of up to three years. Other leases have a remaining term of up to four years. Leases can include extension and termination options. The terms and conditions are negotiated individually and include a number of differing rules. Explanatory notes on the lease liabilities can be found in Note 26.

18. Intangible assets and goodwill

Intangible assets developed as follows in the reporting period:

		Other intangible assets						
in € k	Goodwill	IT licenses, software, website	Develop-ment ex-penses	Advance payments	Trademarks	Basis tech-nology	Customer relation-ships	Total
Cost								
01.08.2018	**-**	**22**	**-**	**-**	**-**	**-**	**-**	**22**
Acquisition through business combinations	22,001	36	351	-	1,700	3,500	4,800	32,388
Disposals	-	(3)	-	-	-	-	-	(3)
31.12.2018	**22,001**	**55**	**351**	**-**	**1,700**	**3,500**	**4,800**	**32,407**
Acquisition through business combinations	69,357	130	-	77	8,500	21,600	30,100	129,764
Additions	-	16	443	10	-	-	-	469
Disposals	-	(3)	-	-	-	-	-	(3)
31.12.2019	**91,358**	**197**	**794**	**87**	**10,200**	**25,100**	**34,900**	**162,636**
Accumulated amortisation and impairment losses								
01.08.2018	**-**	**3**	**-**	**-**	**-**	**-**	**-**	**3**
Amortisation and impairment losses	-	5	4	-	14	58	40	121
Disposals	-	-	-	-	-	-	-	-
31.12.2018	**-**	**8**	**4**	**-**	**14**	**58**	**40**	**124**
Amortisation and impairment losses	-	35	80	-	241	925	648	1,930
Disposals	-	(3)	-	-	-	-	-	(3)
31.12.2019	**-**	**40**	**84**	**-**	**255**	**983**	**688**	**2,049**
Carrying amounts								
01.08.2018	-	19	-	-	-	-	-	19
31.12.2018	22,001	47	347	-	1,686	3,442	4,760	32,283
31.12.2019	**91,358**	**157**	**710**	**87**	**9,945**	**24,117**	**34,212**	**160,585**

The allocation of the purchase price for the acquisition of IHSE was conducted in the reporting period. For further explanatory notes in this regard, please refer to Note 33. An amount of € 60,200 k resulting from the identification and initial recognition of intangible assets was capitalised in the consolidated statement of financial position. This amount included brand names and domains (€ 8,500 k), basis technologies (€ 21,600 k) and customer relationships (€ 30,100 k). The identified intangible assets are allocated to the "IHSE" cash-generating unit. The assets identified at the date of acquisition were measured at fair value. The fair values of brand names and basis technologies were determined using the income capitalisation approach in applying the relief from royalty method. The fair value of customer relationships was determined using the income capitalisation approach applying the multi-period excess earnings method. The useful life of other amortised intangible assets by category is as follows:

- IT, software, licenses, website: 3 years
- Trademarks: 10 years
- Basis technology: 5-8 years
- Customer relationships: 10-15 years

Capitalised development expenses are amortised on a straight line basis over five years when the development is complete and serial production has started.

For further information on the acquisition of subsidiaries, please refer to Note 33.

The annual impairment test of goodwill was conducted as at 31 December 2019. There were no specific indicators of impairment. The value in use of the cash-generating unit is generally used to test the recoverability of goodwill. The cash-generating unit "Palas" refers to Palas GmbH and the cash-generating unit "IHSE" refers to IHSE.

Long-term corporate planning in each case extends to the end of the detailed planning period of five years after the reporting date. The significant assumptions to which the long-term corporate planning in both cases is sensitive are the development of the new business and the purchase price of materials. These developments were assessed and identified based on past experience, publicly available data and by using the existing sales pipeline and the assessment of management on future sales market conditions. Cash flows are discounted using risk-appropriate (pre-tax) discount rates on the reporting date. The cost of capital rates used for discounting are based on the risk-free rate and on a market risk premium. In addition, the beta factor, borrowing costs and capital structure are taken into account; these were derived individually for the "Palas GmbH" cash-generating unit based on a commensurate peer group. The revenue growth rates for the relevant markets were used as the base for determining cash flows. The assumptions made are subject to a certain sensitivity.

Goodwill acquired in the course of the purchase of Palas GmbH in the comparative period of € 22,001 k was allocated to the cash-generating unit "Palas" for impairment testing.

The assumptions used for the determination of the recoverability of goodwill are shown in the following table:

	31.12.2019
Determination of the recoverable amount	Value in use
Discount rate	8.62%
Discount rate (pre-tax)	9.04%
Sustainable growth rate	1.0%
Forecast EBITDA growth rate (average for the next five years)	15%

The difference between the recoverable amount of the cash-generating unit "Palas" and the carrying amount is positive. For this reason, there was no impairment for the cash-generating unit "Palas" as at the reporting date.

Goodwill acquired in the course of the acquisition of IHSE of € 69,357 k was allocated to the cash-generating unit "IHSE" for impairment testing.

The assumptions used for the determination of the recoverability of goodwill are shown in the following table:

	31.12.2019
Determination of the recoverable amount	Value in use
Discount rate	9.03%
Discount rate (pre-tax)	9.70%
Sustainable growth rate	1.0%
Forecast EBITDA growth rate (average for the next five years)	11%

The difference between the recoverable amount of the cash-generating unit "IHSE" and the carrying amount is positive. For this reason, there was no impairment for the cash-generating unit "IHSE" as at the reporting date.

19. Inventories

Inventories break down as follows:

in € k	31.12.2019	31.12.2018
Raw materials and consumables	5,324	2,100
Work in progress	2,364	604
Finished goods	2,163	752
Order book	825	825
Inventories	**10,676**	**4,281**

For information on collateral pledged for liabilities in respect of inventories, please refer to Note 26.

In the course of the purchase price allocation for the acquisition of shares in IHSE, an existing order book (€ 900 k) was identified as at the acquisition date; this involves binding orders for the next twelve months. As at the prior year's reporting date, the order book included the fair value of the binding orders that were identified in the course of the purchase price allocation for the acquisition of Palas.

No impairment losses or reversals of impairment losses were recognised as an expense in profit or loss in the reporting period.

20. Trade receivables and other assets

Trade and other receivables break down as follows:

in € k	31.12.2019	31.12.2018
Trade receivables	5,848	1,196
Other assets	655	181
Lease receivables	1	-
Trade receivables and other assets	**6,504**	**1,377**

An impairment loss is expected when distinct matters, such as late payment over time or the initiation of compulsory measures are in place. The following table shows the development of the allowance account in respect of trade receivables:

in € k	31.12.2019	31.12.2018
Opening balance	14	-
Loss allowances acquired in business combination	443	-
Write-downs on receivables	2	14
Receivables derecognised	(9)	-
Loss allowances for trade receivables	**450**	**14**

21. Cash and cash equivalents

Cash and cash equivalents consist of the following items:

in € k	31.12.2019	31.12.2018
Cash at bank	17,168	31,577
Cash in hand	3	1
Cash and cash equivalents in the statement of financial position	**17,171**	**31,578**
Overdraft facilities used for cash management	-	-
Cash and cash equivalents shown in the statement of cash flows	**17,171**	**31,578**

Cash at banks bears floating rate interest on short-term call deposits. The carrying amount of this assets corresponds to the fair value.

22. Subscribed capital

The Company's share capital amounts to € 6,642,372 as at the reporting date of 31 December 2019. It is divided into 6,642,372 no-par value registered shares. Distribution to the shareholders as at the reporting date is as follows:

Shareholder group	Number of shares	Equity share (in %)
Founding team	2,071,186	31.2%
Pre-IPO investors	4,142,372	62.4%
Outstanding shares	**6,213,558**	**93.5%**
BCM AG (share loan)	428,814	6.5%
Total	**6,642,372**	**100.0%**

Owing to the share loan, the distribution of voting and profit participation rights is as follows:

Shareholder group	Number of shares	Equity share (in %)
Founding team	2,071,186	33.3%
Pre-IPO investors	4,142,372	66.7%
Outstanding shares	**6,213,558**	**100.0%**

On 15 December 2017, the annual general meeting authorised the Executive Board, with the consent of the Supervisory Board, to increase the share capital up to 14 December 2022, on one or more occasions in exchange for cash contribution and/or contribution in kind up to a total of € 2,076,000, with the option to exclude pre-emptive subscription rights (**Authorised Capital 2017/I**). By resolution of the Executive Board and the consent of the Supervisory Board dated 21 December 2018, the share capital of the Company was increased in exchange for contribution in kind by means of the partial utilisation of Authorised Capital 2017/I of € 100,000 in exchange for the issue of 100,000 new shares to € 4,242,000. The contribution in kind consisted of shares of Palas Holding GmbH. As the contribution in kind capital increase had not yet been entered into the commercial register as at the prior-year reporting date of 31 December 2018, this was presented as a separate item under "capital increase not yet registered". Please refer in this regard to Note 23. Entry was made in the commercial register on 2 January 2019. As a consequence, share capital increased by € 100 k and the capital reserve by € 2,900 k.

By resolution of the Supervisory Board dated 15 April 2019 and entry into the commercial registered dated 7 June 2019, the Company increased the capital by € 41,667 to € 4,293,667. The new shares were issued by partial utilisation of the Authorised Capital 2017/I at a price of € 30.00 per share, and funds of € 1,250 k flowed to the Company.

At the Company's annual general meeting on 27 June 2019, the shareholders authorised the Executive Board, with the consent of the Supervisory Board, to increase the share capital in exchange for cash or contributions in kind by up to € 212,500, with the option to exclude pre-emptive subscription rights (**Authorised Capital 2019/I**). Further, the share capital was conditionally increased by up to € 425,200 (**Contingent Capital 2019/I**). The contingent capital serves to grant rights to holders of share warrants from the share option program. Please refer in this regard to Note 36.

The extraordinary general meeting of the Company on 2 September 2019 resolved a capital increase by way of subscription rights by up to € 3,138,912 to a maximum of € 7,432,579. By resolution of the Executive Board dated 5 December 2019, the capital increase of € 1,735,431 to € 6,029,098 was carried out. The new shares were issued at a price of € 32.00 per share, and funds of € 55,534 k flowed to the Company.

On 12 December 2019 a contribution in kind capital increase of a further € 631,274 to € 6,642,372 was carried out from Authorised Capital 2017/I, in the course of which new shares at a price of € 32.00 per share were also issued. Shares were issued in exchange for the contribution of shares in IHSE Holding GmbH to BCM AG. The cash equivalent of the contributed shares amounted to € 19,625 k. Please refer in this regard to Note 33.

22.1 Share loan

The founding shareholders transferred a total of 1,674,000 Brockhaus shares by way of an uncompensated share loan (hereinafter "share loan"), with all inherent rights and obligations therewith, with the transfer date of 21 December 2017. In addition, the founding shareholders instructed the KAS Bank N.V., Frankfurt am Main, on the transfer date to transfer the share loan to the custody account of the Company at Deutsche Bank AG, Frankfurt am Main.

The successive retransfer of the share loan to the founding shareholders is carried out in a 1:2 ratio to new shares, which are created in the course of the capital increases. The purpose of this arrangement was to limit to one third the share of voting and profit participation rights of the founding shareholders. The share loan ends in full when a total of 5,000,000 of new shares to investors (excluding the founding shareholders) has been issued and the total share capital of the Company amounts to € 7,500,000.

The loan has a maximum term of three years, calculated from the date of transfer, and ends at the latest with effect from midnight of 20 December 2020. If the share loan is still owned by the Company as at the end of this term, the share loan will be transferred to all shareholders (including the founding shareholders) who are shareholders of the Company at midnight on 20 December 2020 pro rata in proportion to their investment at this date.

Owing to the capital increases described in Note 22, 20,833 shares of the share loan were transferred back to the founding shareholders in the reporting period. A further retransfer of 1,174,353 shares was made in January 2020 as the technical settlement at the custodian bank extended beyond the reporting date.

The Company, itself, is not entitled to rights from own shares. Excluded rights relate, among others, to profit participation rights, voting rights and the subscription right for the issue of new shares in the course of capital increases.

23. Capital increase not yet registered

As at the prior-year reporting date of 31 December 2018, a capital increase of 100,000 shares with a total volume of € 3,000 k was not yet entered in the commercial register and was thus presented as a separate item in the statement of financial position. Entry was made in the commercial register on 2 January 2019, with the share capital being increased by an amount of € 100 k to € 4,252 k. The contractual premium of € 2,900 k increased the capital reserve.

24. Capital reserve

The capital reserve includes the premiums arising from the issue of shares less costs for the capital increases and uncommitted capital reserves.

25. Other reserves

Other reserves include the personnel expenses from equity-settled share-based payments (pursuant to IFRS 2).

26. Financial liabilities

Financial liabilities break down as follows:

in € k	31.12.2019	31.12.2018
Liabilities to banks	51,011	11,713
Lease liabilities	347	-
Liability for the acquisition of the remaining 30% of shares of Palas	1,332	1,223
Other financial liabilities	3,199	3,012
Non-current financial liabilities	**55,889**	**15,948**
Current component of liabilities to banks	5,012	1,030
Lease liabilities	423	-
Current financial liabilities	**5,435**	**1,030**
Total financial liabilities	**61,324**	**16,979**

Liabilities to banks: The liabilities to bank totalling € 56,023 k include senior financing for the acquisition of subsidiaries of € 49,583 k and real estate loans of € 6,440 k.

Liabilities to banks are secured in the full amount by fixed and current assets as well as land charges being assigned as security.

Lease liabilities: Owing to the first-time application of the new rules on leases under IFRS 16 as at 1 January 2019, liabilities arising from leases were recorded for the first time in the statement of financial position. Financial liabilities arising from leases in the amount of € 337 k were repaid and € 19 k was paid as interest expense for leasing in the reporting period. As at the reporting date, future cash outflows amount to € 792 k. Potential future cash outflows of € 1,231 k were not recorded in lease liabilities as it is not reasonably certain that the leases will be extended or terminated. Explanatory notes on the right-of-use assets from leases can be found in Note 17.

Liability for the acquisition of the remaining 30% of shares of Palas Holding GmbH: In the course of implementing the acquisition of Palas in the short fiscal year 2018, the Group has an obligation to the remaining managing directors to acquire their 30% share at a later date and for the presentation of this obligation applies the anticipated acquisition method. According to this method, the acquisition is presented as if the purchase option of the other shareholders had already been exercised. This means that the shares underlying the option are already deemed acquired as at the acquisition date and consequently, no non-controlling interests exist within the Group. A portion of the obligation arising from this option is recorded as a financial liability in the consolidated statement of financial position. The liability is stated at amortised cost and the change in its value is recorded in profit or loss. For further information in this regard, please refer to Note 36.2.

Other financial liabilities include an unsecured vendor loan, which was granted in relation to the acquisition of Palas.

Information on the extent to which the Group is exposed to interest, currency and liquidity risks can be found in Note 31.

Reconciliation of movements of liabilities to cash flows from financing activities

	Liabilities to banks	Other financial liabilities	Lease liabilities	Exit put	Total
01.01.2019	**12,744**	**3,012**	**-**	**1,223**	**16,979**
Raising loans and other borrowed funds	17,193	-	-	-	17,193
Repayment of lease liabilities	-	-	(337)	-	(337)
Repayment of loans and other borrowed funds	(542)	(1,131)	-	-	(1,673)
Interest paid	(222)	-	(10)	-	(232)
Total change in cash flows from financing activities	**16,429**	**(1,131)**	**(347)**	**-**	**14,951**
New leases according to IFRS 16	-	-	849	-	849
Changes due to the acquisition of subsidiaries	26,187	1,131	249	-	27,567
Interest expense	663	187	19	109	978
31.12.2019	**56,023**	**3,199**	**770**	**1,332**	**61,324**

Reconciliation of movements of liabilities to cash flows from financing activities for the comparative period

	Liabilities to banks	Other financial liabilities	Lease liabilities	Exit put	Total
01.08.2018	**-**	**-**	**-**	**-**	**-**
Raising loans and other borrowed funds	12,740	-	-	-	12,740
Interest paid	(31)	-	-	-	(31)
Total change in cash flows from financing activities	**12,709**	**-**	**-**	**-**	**12,709**
Non-cash purchase price loan	-	3,000	-	-	3,000
Non-cash grant of a purchase option	-	-	-	1,223	1,223
Interest expense	35	12	-	-	47
31.12.2018	**12,744**	**3,012**	**-**	**1,223**	**16,979**

27. Trade payables and other current liabilities

Trade and other current liabilities break down as follows:

in € k	31.12.2019	31.12.2018
Trade payables	2,450	885
Other liabilities	4,466	1,934
Trade and other payables	**6,916**	**2,819**

Explanatory notes on the liquidity risks of the Group in respect of trade payables and other liabilities can be found in Note 31.

28. Other provisions

Other provisions developed as follows:

in € k	Warranties	NCI Put Provision	Total
01.01.2019	**84**	**-**	**84**
Adopted as part of a business combination	95	-	95
Provisions utilised	(41)	-	(41)
Provisions recognised	149	327	476
31.12.2019	**287**	**327**	**614**
Thereof non-current	163	327	490
Thereof current	125	-	125

The provision formed for the NCI put is composed of €83 k of personnel expenses arising from share-based remuneration and € 245 k of finance costs arising from remeasurement. Please refer in this regard to Note 36.2.

29. Contingent liabilities

Liabilities to banks are secured by assigning fixed and current assets as well as land charges as security.

IV. Financial instruments

30. Classification and fair values

The Group has financial instruments that are not measured at **fair value** in the statement of financial position. In the case of these instruments, the fair values do not differ significantly from the carrying amounts as the interest receivables and interest payables are either almost equal to the current market rates or the instruments are short term.

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their level in the fair value hierarchy. It does not contain information on the fair value of financial assets and financial liabilities that are not measured at fair value if the carrying amount represents an appropriate approximation of the fair value.

31.12.2019

	Carrying amount			Fair value			
in € k	Financial assets at amortised cost	Other financial liabilities	Total	Level 1	Level 2	Level 3	Total
Assets not measured at fair value							
Trade receivables	5,848	-	5,848				
Other receivables	655	-	655				
Lease receivables	1	-	1				
Cash and cash equivalents	17,171	-	17,171				
Total	**23,675**	**-**	**23,675**				
Financial liabilities not measured at fair value							
Secured bank loan	-	56,023	56,023	-	56,023	-	56,023
Unsecured loans	-	3,199	3,199	-	3,199	-	3,199
Liability for the acquisition of the remaining 30% of shares of Palas (Note 26).	-	1,332	1,332	-	-	1,332	1,332
Trade payables	-	2,450	2,450				
Other liabilities	-	4,466	4,466				
Total	**-**	**67,469**	**67,469**				

Financial instruments not measured at fair value

Type	Financial liabilities
Measurement method	Discounted cash flows: The valuation model takes account of the present value of the expected payments discounted using the effective interest rate.

31.12.2018

	Carrying amount			Fair value			
in € k	Financial assets at amortised cost	Other financial liabili-ties	Total	Level 1	Level 2	Level 3	Total
Assets not measured at fair value							
Trade receivables	1,196	-	1,196				
Other receivables	181	-	181				
Cash and cash equivalents	31,578	-	31,578				
Total	**32,955**	**-**	**32,955**				
Financial liabilities not measured at fair value							
Secured bank loan	-	12,744	12,744	-	12,744	-	12,744
Unsecured loans	-	3,012	3,012	-	3,012	-	3,012
Liability for the acquisition of the remaining 30% of shares of Palas (Note 26)	-	1,223	1,223	-	-	1,223	1,223
Trade payables	-	885	885				
Other liabilities	-	1,934	1,934				
Total	**-**	**19,798**	**19,798**				

31. Financial risk management

The Company's Executive Board bears the responsibility for the setup and control of risk management.

The managing directors at the level of the subsidiaries are responsible for the risk management. Appropriate processes for payables and receivables management, liquidity planning, monthly reporting, etc., are implemented for Palas and IHSE.

Credit risks

A credit risk is the risk that a contracting party for a transaction involving a financial instrument fails to meet its obligations causing financial losses at the Company. The credit risk essentially arises from trade and other receivables.

The carrying amount of financial assets represents the maximum exposure to credit risk.

The Group held cash and cash equivalents of € 17,171 k as at 31 December 2019 (31 December 2018: € 31,578 k). Thus, this amount represents the maximum exposure to credit risk in terms of these assets. The cash and cash equivalents are deposited at banks or financial institutions that are rated AA- to AA+. The Executive Board continuously monitors the financial situation of the banks in which credit balances are held.

The Group's exposure to credit risk is influenced mainly by the individual traits of each customer. However, the Executive Board also considers the characteristics of the overall customer base, including the credit risk of the industry and country in which customers operate, as these factors can also have an influence on credit risk. Detailed explanatory notes on the concentration of revenue in certain areas can be found in Note 7.

The general economic conditions in Germany, in the eurozone and in Asia and America are actively observed. The Group limits it credit risk on trade receivables by concluding trade credit insurance or by agreeing advance payments on larger orders.

To determine any necessary loss allowances, the Group has introduced a process that enables an assessment of the losses already expected on trade receivables. Please refer in this regard to Note 20.

The maximum exposure to credit risk for trade receivables on 31 December 2019 is as follows. Trade credit insurance and letters of credit are deducted for trade receivables or taken into account as part of the loss given default.

in € k	31.12.2019	31.12.2018
Trade receivables	5,848	1,195
Cover due to trade credit insurance and letters of credit	(748)	(663)
Maximum default risk	**5,100**	**533**

Liquidity risks

Liquidity risk is the risk that the Company possibly will not be able to meet the obligations associated with its financial liabilities. The Executive Board monitors the liquidity position and current and future expected outflows of funds as part of budget planning and continuous controlling.

The Group has secured bank loans which include covenants. A future breach of the covenants can lead to the loans being subject to early repayment. In line with the agreements, the covenants are systematically monitored by the Group and regularly reported to the Executive Board in order to ensure compliance with the loan agreements.

The contractual remaining terms of financial liabilities at the end of the reporting period including estimated interest payments are presented below. These are undiscounted gross amounts including contractual interest payments, though without the effects of offsetting.

31.12.2019

		Contractual cash flows				
in € k	Carrying amount	Total	up to 12 months	1-2 years	2-5 years	> 5 years
Secured bank loan	56,023	(65,031)	(6,678)	(6,479)	(20,519)	(31,356)
Unsecured loans	3,199	(3,793)	(133)	(1,135)	(2,525)	-
Liability for the acquisition of the remaining 30% of shares of Palas	1,332	(1,875)	-	-	(1,875)	-
Lease liabilities	770	(792)	(439)	(331)	(22)	-
Trade payables and other liabilities	6,916	(6,916)	(6,916)	-	-	-
Non-derivative financial liabilities	**68,240**	**(78,407)**	**(14,165)**	**(7,945)**	**(24,942)**	**(31,356)**

31.12.2018

		Contractual cash flows				
in € k	Carrying amount	Total	up to 12 months	1-2 years	2-5 years	> 5 years
Secured bank loan	12,744	(15,259)	(1,503)	(1,472)	(4,214)	(8,070)
Unsecured loans	3,012	(3,783)	-	-	(3,783)	-
Liability for the acquisition of the remaining 30% of shares of Palas	1,223	(1,875)	-	-	-	(1,875)
Trade and other payables	2,819	(2,819)	(2,819)	-	-	-
Non-derivative financial liabilities	**19,798**	**(23,735)**	**(4,323)**	**(1,472)**	**(7,996)**	**(9,945)**

Market risks

Market risk is the risk that the fair value or future cash flows of a financial instrument change due to fluctuations in market prices. A distinction is made between three categories of risk: currency risk, interest rate risk and other market risk.

Currency risk: Due to its global orientation, the BCM Group is exposed to a series of currency risks. In this regard a distinction is made between transaction and translation risk.

Transaction risk: Transaction risks arise due to exchange-rate related changes in value of primary financial instruments and the conclusion of transactions with international contracting parties, where these result in future cash flows in foreign currency that are not denominated in the functional currency of the respective entity. As part of financial risk management processes within group management, currency risks are continuously monitored and managed using commensurate mitigating measures by the finance departments of the respective entities. The objective of risk management is to limit to an acceptable level the effects of currency risk on future cash flows. The currency risk is partially mitigated insofar as goods and services are procured in the relevant foreign currencies. Group entities are responsible for identifying, assessing and monitoring their transaction-related foreign currency risks.

Translation risk: Some group entities are outside of the eurozone. As the consolidated financial statements are prepared in euro, the Company translates the financial statements of these entities into euro, which can result in exchange rate-related differences. Mitigating these differences is not the primary objective within currency risk management. For each currency representing a significant risk for the business, a sensitivity analysis is conducted based on the following assumptions: All monetary financial instruments of the Group that are not denominated in the functional currency of the respective single entities are considered for the sensitivity analysis. As a result, translation risks are not considered. The hypothetical effects on profit and loss and in equity for each primary individual item incorporated in the sensitivity analysis are determined by comparing the carrying amount (calculated using the closing rate) with the translation amount that results from using a hypothetical exchange rate. If the EUR/USD exchange rate were to be 10% higher, the earnings before tax would be € 48 k lower. If the EUR/USD exchange rate were to be 10% lower, the earnings before tax would be € 58 k higher. The Group holds financial assets and financial liabilities solely in the functional currency.

Interest rate risk: Interest rate risks arise where the fair value of financial instruments fluctuates due to changes in market interest rates. To assess the interest rate risk, financial instruments are divided pursuant to IAS 32 into fixed and variable interest rates. Interest rate risks arise for floating rate liabilities to banks. The loans taken out by the Group are in part subject to interest rates that are linked to the development of EURIBOR. In order to mitigate risks from a future rise in the EURIBOR, the Group entered into interest rate cap contracts. For a reference amount of € 6,229 k, the positive market value of the cap as at the reporting date amounts to € 1 k. The market value of the interest rate hedge is discounted to 31 December 2019 and the calculation is based on the generally recognised Bachelier mathematic model and the market data available at the calculation date. There are currently no significant interest rate risks.

V. Other disclosures

32. Operating segments

The Group currently comprises two strategic divisions, which represent the reportable segments of the Group. The segments offer different products and services and are separately administrated since they operate in different markets and therefore require different technology and marketing strategies. For each segment, the Executive Board of BCM AG reviews internal management reports on a monthly basis.

The operating segment **Environmental Technologies** comprises businesses in the field of development, production and distribution of fine dust and nano measurement devices, aerosol spectrometers and generators as well as filter test rigs.

The operating segment **Security Technologies** comprises businesses in the field of development, production and distribution of high-performance devices for the switching and extension of computer signals Since this segment refers to IHSE, the expenses and income of which are included in the consolidated financial statements only for December 2019, the informative value of the figures is limited.

Since the operating activities of the Group as well as their segment reporting substantially depends on further company acquisitions, substantial adjustments to both the definition of segments as well as the figures reported on a regular basis can occur. Information on the distribution of revenue to the groups of products and services can be found in Note 7. Segment reporting is according to management accounting, which for the most part complies with IFRS. Non-current assets are almost wholly in Germany.

	Reportable segments									
	Environmental Technologies		Security Technologies		Total		Central areas		Total	
in € k	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Revenue	13,835	1,098	2,726	-	16,561	1,098	-	-	16,561	1,098
Adjusted EBITDA	4,999	313	767	-	5,766	313	(2,997)	(1,156)	2,770	(843)
Share-based payment									(180)	-
Cost of purchase of subsidiaries									(1,320)	(471)
EBITDA									1,270	(1,314)
Trade working capital*	3,527	4,788	11,010	-	14,538	4,788	(462)	(196)	14,075	4,592
Cash and cash equivalents	3,407	2,129	6,583	-	9,990	2,129	7,181	29,448	17,171	31,578
Non-current debt	15,112	15,948	40,777	-	55,889	15,948	-	-	55,889	15,948
Sales by region										
Germany	4,175	534	215	-	4,390	534	-	-	4,390	534
Rest of Europe	**4,658**	**242**	**307**	**-**	**4,966**	**242**	**-**	**-**	**4,966**	**242**
France	1,323	-	14	-	1,337	-	-	-	1,337	-
United Kingdom	1,220	-	-	-	1,220	-	-	-	1,220	-
Other	2,115	242	294	-	2,409	242	-	-	2,409	242
Rest of world	**5,002**	**321**	**2,204**	**-**	**7,206**	**321**	**-**	**-**	**7,206**	**321**
USA	2,397	-	2,030	-	4,427	-	-	-	4,427	-
China	556	-	70	-	626	-	-	-	626	-
Other	2,049	321	103	-	2,152	321	-	-	2,152	321
Total	**13,835**	**1,098**	**2,726**	**-**	**16,561**	**1,098**	**-**	**-**	**16,561**	**1,098**

* Trade working capital is composed of inventories and trade receivables less trade payables.

Information on important customers

Revenue with one customer in the Environmental Technologies segment accounts for € 2,035 k of the Group's total revenue.

33. Acquisition of subsidiaries

With completion on 16 December 2019, the Group acquired 100% of the shares (corresponding to 100% of equity instruments with voting rights) in IHSE Holding GmbH, with registered office in Oberteuringen and thus obtained control over this entity. The entity, collectively with its direct and indirect subsidiaries, especially IHSE GmbH, forms a group (**IHSE**). The total consideration paid amounted to € 110,170 k.

IHSE develops, produces and sells devices for switching and extension of computer signals. This acquisition has significantly advanced the goal of expanding the Group to a leading technology group. The acquisition was based on the Executive Board's expectation that it will sustainably increase the enterprise value of the Group over the long term. Up to their sale, the ownership interests of IHSE Holding GmbH were held by the Brockhaus Private Equity III fund and members of IHSE management.

The investment of BCM AG in IHSE was made in several related closely-timed linked transaction steps. First, BCM AG acquired 100% of the shares of a shelf company in the legal form of a GmbH (German limited liability company) (acquisition vehicle) and renamed this to IHSE AcquiCo GmbH. After equipping IHSE AcquiCo GmbH with the respective acquisition financing, this entity acquired the shares in IHSE Holding GmbH.

In part, the shares in IHSE Holding GmbH were initially acquired by BCM AG by issuing 613,274 new shares and then contributed to IHSE AcquiCo GmbH. The issuance of new shares in BCM AG was made at an issue price of € 32.00 per share.

Technically, first consolidation occurred as at 1 December 2019. In the period from 1 December to 31 December 2019 IHSE contributed revenue of € 2,726 k and a loss of € 1,542 k to group performance. Had the acquisition taken place on 1 January 2019, Group revenue would have amounted to € 54,290 k, EBITDA to € 15,985 k (adjusted EBITDA: €16,166 k) and profit for the period € 1,314 k. When calculating these amounts, management assumed that the adjustments to the fair values that were preliminarily determined as at the date of acquisition would have also been applicable had the acquisition taken place as at 1 January 2019, the financing structure following acquisition had already existed at the beginning of the year and the costs of acquisition had not been incurred in the reporting period. Please refer in this regard also to Note 6.

Consideration transferred

In addition to cash, the consideration transferred also included 613,274 shares of BCM AG. The fair values of each main group of considerations applicable at the date of acquisition are summarised below:

in € k	
Cash and cash equivalents	90,545
Shares of BCM AG	19,625
Total consideration transferred	**110,170**

The measurement of the fair value of the BCM AG shares newly issued as consideration was made based on the shares issued at € 32.00 each to non-group investors also in December 2019. The cash raised in the course of the capital increase concerned amounted to € 55,534 k and was fully used for the payment of the cash components of the purchase price and the repayment of the existing financial liabilities of IHSE, respectively.

Cost related to the acquisition

The Group incurred acquisition-related costs of € 1,320 k for legal advice, due diligence, notarial records, W&I insurance and real estate transfer tax. These costs are recorded in other operating expenses.

Identifiable assets acquired and liabilities assumed

Based on the proximity of the transaction timing to the reporting date, the measurement of the acquired assets and assumed liabilities is subject to the proviso of being provisional. Adjustments may be made within the 12-month measurement period following the acquisition. The following summarises the recognised amounts of assets acquired and liabilities assumed as at acquisition date.

in € k	
Property, plant and equipment (including right-of-use assets)	9,542
Intangible assets	60,407
Inventories (including order book)	8,131
Trade and other receivables	5,106
Cash and cash equivalents	4,706
Deferred tax assets	823
Current tax liabilities	(508)
Deferred tax liabilities	(15,838)
Provisions for warranties	(95)
Liabilities to banks	(26,187)
Lease liabilities	(249)
Trade and other payables	(5,025)
Identifiable net assets acquired	**40,813**

The acquired trade receivables have a gross amount of € 4,967 k and a fair value of € 4,524 k. Management estimates the contractual cash flows from these receivables that are not expected to be collected at € 443 k.

In the prior-year period, the purchase price allocation arising from the acquisition of Palas took place subject to the proviso of being provisional. Consequently, the Group reserved the right to make adjustments to the purchase price allocation in the 12-month measurement period after the acquisition. Such adjustments were not made, with the result that the purchase price allocation arising from the acquisition of Palas in the prior-year period is the final state.

Goodwill

The goodwill was recognised as follows and results from the leading market position and many years of the successful and profitable growth trend of IHSE.

in € k	
Consideration transferred	110,170
Fair value of identifiable net assets	(40,813)
Goodwill	**69,357**

The total amount of goodwill that is expected to be deductible for tax purposes is zero.

34. List of subsidiaries

In addition to the Parent Company, nine indirect and direct subsidiaries are included in the consolidated financial statements. The following table shows the shareholding and the profit or loss of the consolidated entities.

Entity	Registered office	Equity interest	Equity (IFRS)	Profit (or loss) (IFRS)
IHSE AcquiCo GmbH	Oberteuringen	100.00%	94,710	(858)
IHSE Holding GmbH	Oberteuringen	100.00%	7,661	(556)
IHSE Beteiligungs GmbH	Oberteuringen	100.00%	22,887	4,109
IHSE GmbH	Oberteuringen	100.00%	11,540	(2)
IHSE Immobilien GmbH	Oberteuringen	100.00%	1,950	47
IHSE USA LLC	Cranbury, NJ, USA	100.00%	4,730	1,125
IHSE GmbH Asia Pacific Pte Ltd	Singapore	100.00%	1,301	436
Palas Holding GmbH	Karlsruhe	100.00%	21,835	2,399
Palas GmbH Partikel- und Lasermeßtechnik	Karlsruhe	100.00%	6,043	241

The current legal interest in Palas Holding GmbH amounts to 70%. For information on the remaining equity interest of 30%, please refer to Note 26 regarding the application of the anticipated acquisition method.

35. Research and development expenses

The Group's research and development expenses amounted to € 345 k in the reporting period (prior year: € 52 k); of which € 265 k (prior year:

€ 48 k) is attributable to research expenses and non-capitalisable development expenses and € 80 k (prior year: € 4 k) is attributable to amortisation of capitalised development expenses.

36. Share-based payment

The total expense for share-based payments recorded in the reporting period amounted to € 180 k (of which € 97 k is settled in equity instruments and € 83 k in cash) (prior year: € - k). Please refer in this regard to Note 10.

36.1 Share option plan

By resolution of the annual general meeting of 27 June 2019, the Group initiated a share option plan for its employees and issued 77,500 options each for the acquisition of one share in the Parent Company in the reporting period. The reason for establishing the share option plan is that corporate management assumes that this represents a suitable performance incentive for the owners of the options for the purposes of raising the value of the Group. In line with the share option conditions, holders of exercisable options have the right to acquire shares in the value of the options on the grant date. The options are subject to a vesting period of four years after issuance and expire if the beneficiary's employment at the Group is terminated. A proportion of 1/48 of the respective allocated options vests monthly. Vesting of options is conditional on the long-term performance target, which requires an increase in the share price (incl. dividends) of a minimum of 15% from the date of the options being issued to their being exercised. Settlement is in the form of new shares in the Parent Company (equity instrument) against payment of the exercise price by the owner of the option. The Group is entitled but not obligated to pay a cash settlement to the owner of the option instead of equity settlement.

The resolution of the annual general meeting authorised the Executive Board, with the consent of the Supervisory Board, to issue at total of 425,000 share option rights within the scope of authorised capital. The development of outstanding options in the reporting period was as follows:

Options	Number	Exercise price* (€)
Options outstanding on 01.01.2019	-	-
In the reporting period...		
... options granted	77,500	30.00
... options forfeited	-	-
... options exercised	-	-
... options expired	-	-
Options outstanding on 31.12.2019	77,500	30.00
Options exercisable on 31.12.2019	-	30.00

* Weighted average exercise prices of share options

All options outstanding on the reporting date have an exercise price of € 30.00. The average remaining term is 3.7 years.

Options are valued at the issue date using a Monte Carlo simulation. The parameters used to value the options are shown in the following presentation:

Valuation parameters	
Weighted average share price	€ 30.00
Weighted-average exercise price	€ 30.00
Term of options	4 years
Expected volatility	19.5%
Expected dividend yield	0.0%
Risk-free rate	0.0%

A percentage rate of zero was set for the dividend yield as the option conditions include an adjustment mechanism. This mechanism provides for a reduction in the exercise price in the amount of the dividends paid per share over the term of the option. Early exercise of options was not taken into account in the valuation as this is not generally anticipated. The expected volatility was determined using the historical volatility of share prices of comparable companies. In this respect the expected volatility is based directly on historical volatility. For the determination of the fair value of options, the performance target of 15% increase in the share price over the term of the options was taken as an additional feature into account by eliminating the option proceeds on simulated prices below the performance target in the Monte Carlo model.

36.2 Cash-settled

A share-based payment agreement with cash settlement was concluded, which allows beneficiaries to participate in cash payments arising from an exit event in respect of their put options on shares from subsidiaries after a period of five years. The agreement requires the completion of a defined service period in future during which the services are to be provided continuously.

20% of the shares of beneficiaries are accrued in annual tranches and subsequently vested over a period of five years. The agreements stipulated an initial cliff vesting requirement of twelve months. In a bad leaver event, the Company is obligated to pay the lower of the cost of the share participation of the respective beneficiary and the current market price of the shares at the time of this event. In the case of a good leaver event, in respect of the vested participation the Company is obligated to pay the current market price of the pro rata participation of the respective beneficiary and, in respect of the non-vested participation, the pro rata entry costs incurred for the non-vested participation. A bad leaver event is typically triggered when the respective employment agreement between the beneficiary and the subsidiary is terminated for good cause or the beneficiary terminates the employment agreement without good cause within the control of the group entity being in place. A good leaver event is typically triggered when the employment agreement is terminated with proper notice by the subsidiary.

In respect of the amount of entry costs, the discounted amount is shown as financial liability (see Note 26).

The remaining entitlement of beneficiaries is recorded as a provision. This includes a component for the work performed, with the change for this being recognised in personnel expenses according to IFRS 2, and a component for the annual remeasurement of the Group's obligation, with the change for this being recorded in the financial result.

The personnel expense component was calculated at the issue date of the put option using the Black-Scholes model. The parameters used are shown in the following presentation:

Valuation parameters	
Fair value at issue	€ 1,875 k
Exercise price	€ 1,875 k
Term	5 years
Expected volatility	25.0%
Expected dividend yield	0.0%
Risk-free rate	0.0%

A percentage rate of zero has been set for the dividend yield as dividends from the entity concerned are largely improbable over the term. Early exercise was not taken into account in the valuation as this is also largely improbable. The expected volatility was determined using the historical volatility of share prices of comparable companies. In this respect the expected volatility is based directly on historical volatility. No further significant inputs were considered in the determination of fair value. Please refer to Notes 10 and 28.

37. Related party transactions

Related parties are understood as entities and individuals who are able to control BCM AG or to exert significant influence on its financial or business policy.

Such entities and individuals include key management within the Group and entities that are controlled by key management personnel or are under their significant influence.

Key management personnel

In respect of the Group, key management personnel include the members of the Executive Board and Supervisory Board of the Parent Company.

Members of the Supervisory Board subscribed to 163,254 shares of the Company in the course of the capital increases during the reporting period. Please refer in this regard to Note 22.

A member of the Executive Board has received from the Company a transfer of 47,804 shares of the Company as part of partial transfers back of the share loan. Owing to the structure of the legal function of the share loan, the volume and the outstanding balance of the transaction are presented with a value of zero. Please refer in this regard to Note 22.1.

Other related parties

Executive Board members hold positions in other entities, in which they have control or a significant influence on the financial and business policy of these entities. Some of these entities conducted transactions with BCM AG in the reporting period.

Falkenstein Heritage GmbH, with registered office in Wetzlar, holds 26.7% of the voting rights in the Company. This entity is controlled by a member of the Executive Board of BCM AG.

Brockhaus Private Equity GmbH is a minority shareholder in the Company with 3.3% of the voting rights and is controlled by members of the Executive Board of BCM AG. A service relationship existed with Brockhaus Private Equity GmbH in the reporting period. This service relationship arises from the recharging of costs paid in advance by Brockhaus Private Equity GmbH for BCM AG and presented as expenditures of BCM AG. Further, a service relationship arising from a sublease agreement existed in the reporting period.

Falkenstein Heritage GmbH and Brockhaus Private Equity GmbH are parties to a share loan and – as part of this – have received partial retransfers totalling 1,075,668 shares of the Company in the reporting period. Owing to the structure of the legal function of the share loan, the volume and the outstanding balance of the transaction are presented with a value of zero. Please refer in this regard to Note 22.1.

A member of the Executive Board has a significant influence on Brockhaus Private Equity Management (Luxembourg) S.à r.l. in his function as one of the five directors. The shares acquired in IHSE Holding GmbH in the reporting period were partially sold to BCM AG by Brockhaus Private Equity Management (Luxembourg) S.à r.l. in its function as trustee.

The aggregated values of the transactions and the outstanding balances related to entities that are either controlled by or subject to the significant influence of key management personnel are as follows:

	Value of transactions		Outstanding balances	
in € k	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018	31.12.2019	31.12.2018
Acquisition of subsidiaries	97,233	-	-	-
Issue of shares	5,224	-	-	-
Subleases	114	44	-	-
Cost recharges	1	-	-	-

38. Events after the reporting period

On 31 January 2020 it was resolved to increase the share capital of the Company by € 150,686 to € 6,793,058. The capital increase, which resulted in € 4,822 k flowing to the Company, was entered in the commercial register on 20 February 2020.

Current developments in connection with the COVID-19 pandemic in 2020 suggest that global economic growth in the first half of 2020 will be adversely affected by the spread of the disease and the resulting disruption of economic activity. This could have a negative impact on the assets, liabilities, financial position and financial performance of the Group. In light of the current uncertainty, it is not possible to quantify the financial impact of the COVID-19 pandemic.

39. Fees for the audit firm

The total fee expensed for the independent auditor, KPMG AG Wirtschaftsprüfungsgesellschaft, Frankfurt am Main, breaks down as follows:

in € k	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Audit of financial statements	241	79
Other assurance services	7	-
Other services	28	-
Total	**276**	**79**

The fee for audit services includes expenses for the audit of the consolidated financial statements and the audit of the annual financial statements.

40. Employees

The following overview shows the average number of employees of the Group:

Average number	01.01.2019 - 31.12.2019	01.08.2018 - 31.12.2018
Full-time	68	11
Part-time	25	5
Other	8	2
Employees total	**101**	**18**

The number of employees as at the reporting date was as follows:

Number	31.12.2019	31.12.2018
Full-time	137	52
Part-time	47	19
Other	17	8
Employees total	**201**	**79**

41. Company bodies

The members of BCM AG's Executive Board are:

- Chairman of the Executive Board (CEO/ CIO): Mr Marco Brockhaus, Königstein im Taunus
- Member of the Executive Board (CAO/ Legal Counsel): Dr Marcel Wilhelm, Kronberg im Taunus

The Supervisory Board of BCM AG consisted of four members in the reporting period and, unless other mandatory legal requirements apply, comprises the following:

- Chairman: Dr Othmar Belker, interim CFO of a holding group, Kleinwallstadt
- Deputy Chairman: Mr Michael Schuster, lawyer, Königstein im Taunus
- Member of the Supervisory Board: Mr Andreas Peiker, entrepreneur, Königstein im Taunus
- Member of the Supervisory Board: Mr Martin Bestmann, managing director of a consulting firm, Neunkirchen am Brand (since 26 February 2020)

42. Total remuneration of Board members

The Chairman of the Supervisory Board receives an annual fixed remuneration of € 60 k. The remaining members of the Supervisory Board each receive an annual fixed remuneration of € 30 k. In addition, the members of the Supervisory Board receive remuneration for their out-of-pocket expenses and remuneration of the respective VAT to be paid on their remuneration. The remuneration of the Supervisory Board amounted to € 143 k (prior year: € 83 k) in the reporting period.

The remuneration of members of the Executive Board amounted to € 880 k (prior year: € 300 k) in the reporting period.

43. Appropriation of profits

The loss carry forward of the prior year of BCM AG, together with the net loss for the reporting year, is carried forward to the following year. As at 31 December 2019 the Parent Company discloses an accumulated deficit pursuant to German GAAP (German Commercial Code) of € 6,848 k.

Frankfurt am Main, 28 April 2020

Marco Brockhaus
Chairman of the Executive Board, CEO

Dr Marcel Wilhelm
Member of the Executive Board, Legal Counsel