Comet Group Consolidated Financial Statements

Contents

The complete 2019 consolidated financial statements (including the notes) are also available online at www.comet-group.com/en/investors

Consolidated statement of income

In thousands of CHF	Note	2019	%	2018 restated [1]	%
Net sales	3, 4	371,606		436,356	
Cost of sales		(228,763)		(265,274)	
Gross profit		**142,843**	**38.4%**	**171,082**	**39.2%**
Other operating income	5	5,051	1.4%	4,201	1.0%
Development expenses	7	(48,693)	−13.1%	(53,881)	−12.3%
Marketing and selling expenses		(49,843)	−13.4%	(63,188)	−14.5%
General and administrative expenses		(29,419)	−7.9%	(32,848)	−7.5%
Loss on disposal of businesses	8	–	–	(6,595)	−1.5%
Operating income		**19,939**	**5.4%**	**18,771**	**4.3%**
Financing expenses	2.4, 10	(6,738)	−1.8%	(7,003)	−1.6%
Financing income	2.4, 10	2,162	0.6%	3,484	0.8%
Income before tax		**15,363**	**4.1%**	**15,251**	**3.5%**
Income tax	11	(3,336)	−0.9%	(2,904)	−0.7%
Net income		**12,027**	**3.2%**	**12,347**	**2.8%**
Earnings per share in CHF, diluted and basic	12	1.55		1.59	
Operating income		**19,939**	**5.4%**	**18,771**	**4.3%**
Amortization	9	4,602	1.2%	10,655	2.4%
EBITA		**24,541**	**6.6%**	**29,426**	**6.7%**
Depreciation	9	15,433	4.2%	13,540	3.1%
EBITDA		**39,974**	**10.8%**	**42,966**	**9.8%**

[1] Restated for IFRS 16 (see note 2.2).

Consolidated statement of comprehensive income

In thousands of CHF	Note	2019	2018 restated [1]
Net income		12,027	12,347
Other comprehensive income			
Foreign currency translation differences		(2,286)	(1,684)
Total items that will be reclassified to the income statement on realization		**(2,286)**	**(1,684)**
Actuarial losses on defined benefit plans	25	(3,425)	(913)
Income tax	11	361	132
Total items that will not subsequently be reclassified to the income statement		**(3,064)**	**(781)**
Total other comprehensive income		**(5,350)**	**(2,465)**
Total comprehensive income		**6,677**	**9,881**

[1] Restated for IFRS 16 (see note 2.2).

Consolidated balance sheet

In thousands of CHF	Note	**Dec. 31, 2019**	**%**	Dec. 31, 2018 restated [1]	%	Jan. 1, 2018 restated [1]
Assets						
Cash and cash equivalents		60,255		43,007		60,420
Trade and other receivables	13	62,627		63,943		64,574
Other financial assets	14	271		26		277
Tax receivables		609		2,893		2,660
Inventories	15	85,184		91,090		102,825
Prepaid expenses	16	8,296		5,109		4,555
Total current assets		**217,243**	**55.5%**	**206,068**	**54.2%**	**235,311**
Property, plant and equipment	17	115,702		113,591		95,056
Right-of-use assets	18	11,682		12,055		14,274
Intangible assets	19	38,318		40,827		51,647
Financial assets	14	367		209		239
Deferred tax assets	11	8,397		7,516		8,053
Total non-current assets		**174,467**	**44.5%**	**174,198**	**45.8%**	**169,269**
Total assets		**391,710**	**100.0%**	**380,266**	**100.0%**	**404,580**
Liabilities and shareholders' equity						
Current debt	21	12,000		5,000		2,000
Current lease liabilities	18	4,635		4,469		4,126
Trade and other payables	22	36,609		34,919		42,545
Contract liabilities	3	28,273		19,992		29,171
Other financial liabilities	14	41		379		2
Tax payables		2,480		869		3,131
Accrued expenses	23	18,470		20,407		25,758
Current provisions	24	9,346		12,080		10,140
Total current liabilities		**111,853**	**28.6%**	**98,115**	**25.8%**	**116,873**
Non-current debt	21	59,893		62,812		65,733
Non-current lease liabilities	18	8,754		9,694		12,645
Non-current provisions	24	11		47		54
Employee benefit plan liabilities	25	15,250		11,307		8,438
Deferred tax liabilities	11	–		–		1,137
Total non-current liabilities		**83,909**	**21.4%**	**83,859**	**22.1%**	**88,007**
Total liabilities		**195,762**	**50.0%**	**181,974**	**47.9%**	**204,880**
Capital stock	26	7,764		7,760		7,754
Additional paid-in capital		11,184		18,496		29,303
Retained earnings		203,277		196,027		184,950
Foreign currency translation differences		(26,277)		(23,991)		(22,307)
Total equity attributable to shareholders of Comet Holding AG		**195,948**	**50.0%**	**198,292**	**52.1%**	**199,700**
Total liabilities and shareholders' equity		**391,710**	**100.0%**	**380,266**	**100.0%**	**404,580**

[1] Restated for IFRS 16 (see note 2.2).

Consolidated statement of cash flows

In thousands of CHF	Note	2019	2018 restated [1]
Net income		12,027	12,347
Income tax	11	3,336	2,905
Depreciation, amortization and impairment	9	20,035	24,195
Net interest expense	10	1,890	1,555
Share-based payments	30	301	340
Losses on disposal of property, plant and equipment		94	172
Losses on disposal of intangible assets		–	10
Loss on disposal of businesses	8	–	6,595
Other non-cash expense or (income)		1,044	3,126
Change in provisions	24	(2,563)	2,262
Change in other working capital		12,575	(19,936)
Taxes paid		(50)	(5,845)
Net cash provided by operating activities		**48,688**	**27,727**
Outflow from disposal of businesses		–	(293)
Purchases of property, plant and equipment	17	(16,419)	(26,020)
Purchases of intangible assets	19	(2,202)	(1,933)
Disposals of property, plant and equipment	17	99	242
Disposals of intangible assets	19	–	1,039
Purchase/disposals of other financial assets		(163)	35
Net cash (used in) investing activities		**(18,685)**	**(26,930)**
Proceeds from bank debt	21	5,000	–
Repayment of debt	21	(1,000)	–
Repayment of lease liabilities	18	(4,867)	(4,699)
Interest received		108	30
Interest paid		(1,901)	(1,505)
Distribution to shareholders of Comet Holding AG	33	(9,312)	(11,630)
Net cash (used in) financing activities		**(11,972)**	**(17,805)**
Net increase/(decrease) in cash and cash equivalents		18,031	(17,008)
Foreign currency translation differences on cash and cash equivalents		(784)	(404)
Net cash and cash equivalents at January 1		43,007	60,420
Net cash and cash equivalents at December 31		**60,255**	**43,007**

[1] Restated for IFRS 16 (see note 2.2).

Consolidated statement of changes in equity

In thousands of CHF	Note	Equity attributable to shareholders of Comet Holding AG				
		Capital stock	Additional paid-in capital	Retained earnings	Foreign currency translation differences	Total shareholders' equity
December 31, 2017		**7,754**	**29,303**	**186,748**	**(22,257)**	**201,548**
Restatement [1]		–	–	(1,798)	(50)	(1,848)
January 1, 2018 restated [1]		**7,754**	**29,303**	**184,950**	**(22,307)**	**199,700**
Net income				12,347		12,347
Other comprehensive income				(781)	(1,684)	(2,465)
Total comprehensive income				**11,566**	**(1,684)**	**9,881**
Distribution to shareholders of Comet Holding AG	33		(11,630)			(11,630)
Increase in capital (for stock compensation)	26	6	823	(909)		(80)
Share-based payments	30, 31			421		421
December 31, 2018		**7,760**	**18,496**	**196,027**	**(23,991)**	**198,292**
Net income				12,027		12,027
Other comprehensive income				(3,064)	(2,286)	(5,350)
Total comprehensive income				**8,963**	**(2,286)**	**6,677**
Distribution to shareholders of Comet Holding AG	33		(7,760)	(1,552)		(9,312)
Increase in capital (for stock compensation)	26	4	448	(503)		(51)
Share-based payments	30, 31			342		342
December 31, 2019		**7,764**	**11,184**	**203,277**	**(26,277)**	**195,948**

[1] Restated for IFRS 16 (see note 2.2).

Notes to the consolidated financial statements

1 Nature of the business activities

The Comet Group ("Comet", the "Group") is one of the world's leading vendors of x-ray, radio frequency (RF) power and ebeam technology. With high-quality components, systems and services, marketed under the "Comet", "Yxlon" and "ebeam" brands, the Group helps its customers optimize the quality, reliability and efficiency of their products and processes. Yxlon x-ray systems for non-destructive testing are supplied to end customers in the automotive, aerospace, electronics and energy sectors. Under the Comet brand, the Group builds components and modules such as x-ray sources, vacuum capacitors, RF generators and impedance matching networks, marketed to manufacturers in the automotive, aerospace, semiconductor and solar industries as well as the security sector. Under the ebeam brand, the Group develops and markets compact ebeam sets for the treatment of surfaces in the food and printing industries.

2 Accounting policies

The consolidated financial statements (except with respect to certain financial instruments) have been drawn up under the historical cost convention. The fiscal year-end for the financial statements of all Group companies is December 31. These consolidated financial statements have been prepared in compliance with Swiss stock corporation law and International Financial Reporting Standards (IFRS). All IFRS in force at the balance sheet date and all interpretations (IFRIC) of the International Accounting Standards Board (IASB) were applied. Comet did not early-adopt new standards and interpretations unless specifically stated. The significant accounting policies applied are unchanged from the prior year except as set out below.

As a result of rounding and the presentation in thousands of Swiss francs, totals in the consolidated financial statements may not add.

2.1 Changes in accounting policies

Revised and new accounting rules
With effect from January 1, 2019, Comet has applied the following new or adjusted IFRS/IFRIC for the first time:
- IFRS 16 – Leases
- IAS 19 – Employee Benefits (amendment): Plan Amendment, Curtailment or Settlement
- IFRIC 23 – Uncertainty over Income Tax Treatments
- Annual Improvements to IFRSs, 2015-2017 Cycle

Except for IFRS 16, Leases, the new or amended standards and interpretations had no material effect on the Group's financial position, results of operations and cash flows.

2.2 IFRS 16 – Leases

IFRS 16, which replaces IAS 17, contains accounting rules for all leases. Under the new guidance, lessees are required to recognize most leases on their balance sheet and employ a right-of-use model to do so. Under this new model, at the inception of the lease, the lessee recognizes a right-of-use asset for the usage right, and a liability for the payment obligation to the lessor. The scope of IFRS 16 excludes contracts that are within the scope of other IFRS standards, and those which were already treated as finance leases under IAS 17 and IFRIC 4.

Comet has elected to use the full retrospective approach for the adoption of IFRS 16. In the initial application of the new standard, the Group has made use of the practical expedient of applying IFRS 16 only to those arrangements which were already classified as leases under IAS 17 and IFRIC 4. Comet is affected by the new accounting guidance especially in its rental agreements for the use of buildings and in its vehicle leases.

The impacts of the retrospective application of the new standard on the consolidated income statement, balance sheet and cash flow statement for the comparative periods are presented in table form in the following overview.

Effect on items of the consolidated statement of income:

In thousands of CHF	Year to December 31, 2018		
	Reported	Adjustment	Restated
Net sales	436,356	–	436,356
Cost of sales	(265,914)	640	(265,274)
Gross profit	**170,442**	**640**	**171,082**
Other operating income	4,201	–	4,201
Development expenses	(53,882)	–	(53,881)
Marketing and selling expenses	(63,251)	63	(63,188)
General and administrative expenses	(32,953)	105	(32,848)
Loss on disposal of businesses	(6,595)	–	(6,595)
Operating income	**17,962**	**809**	**18,771**
Financing expenses [1]	(6,308)	(695)	(7,003)
Financing income [1]	3,484	–	3,484
Income before tax	**15,137**	**114**	**15,251**
Income tax	(2,858)	(46)	(2,904)
Net income	**12,279**	**68**	**12,347**
Operating income	**17,962**	**809**	**18,771**
Depreciation, amortization and impairment	19,831	4,364	24,195
EBITDA	**37,793**	**5,173**	**42,966**

[1] Adjusted (see note 2.4).

The effect on the consolidated statement of comprehensive income is immaterial.

Effect on items of the consolidated balance sheet:

In thousands of CHF	January 1, 2018			December 31, 2018		
	Reported	Adjustment	Restated	Reported	Adjustment	Restated
Assets						
Total current assets	235,311	–	235,311	206,068	–	206,068
Property, plant and equipment	95,056	–	95,056	113,591	–	113,591
Right-of-use assets	–	14,274	14,274	–	12,055	12,055
Deferred tax assets	7,536	517	8,053	7,063	453	7,516
Other assets, not affected by IFRS 16	51,886	–	51,886	41,036	–	41,036
Total assets	**389,789**	**14,791**	**404,580**	**367,759**	**12,507**	**380,266**
Liabilities						
Current debt	2,000	–	2,000	5,000	–	5,000
Current lease liabilities	132	3,994	4,126	–	4,469	4,469
Total accrued expenses	25,758	–	25,758	20,316	91	20,407
Non-current debt	65,733	–	65,733	62,812	–	62,812
Non-current lease liabilities	–	12,645	12,645	–	9,694	9,694
Other liabilities, not affected by IFRS 16	94,618	–	94,618	79,593	–	79,593
Total liabilities	**188,241**	**16,639**	**204,880**	**167,721**	**14,253**	**181,974**
Equity						
Retained earnings	186,748	(1,798)	184,950	197,758	(1,731)	196,027
Foreign currency translation differences	(22,257)	(50)	(22,307)	(23,976)	(15)	(23,991)
Other equity, not affected by IFRS 16	37,057	–	37,057	26,256	–	26,256
Total equity	**201,548**	**(1,848)**	**199,700**	**200,038**	**(1,746)**	**198,292**

Effect on items of the consolidated statement of cash flows:

In thousands of CHF	Year to December 31, 2018		
	Reported	Adjustment	Restated
Net income	**12,279**	**68**	**12,347**
Change in net cash provided by operating activities	10,184	5,225	15,410
Net cash provided by operating activities	22,463	5,264	27,727
Net cash (used in) investing activities	(26,930)	–	(26,930)
Net cash (used in) financing activities	(12,542)	(5,264)	(17,805)
Net decrease in cash and cash equivalents	**(17,008)**	**–**	**(17,008)**
Foreign currency translation differences on cash and cash equivalents	(404)	–	(404)
Net cash and cash equivalents at January 1	60,420	–	60,420
Net cash and cash equivalents at end of period	**43,007**	**–**	**43,007**

Impact of initial application of IFRS 16
The initial application of IFRS 16 led to changes in the composition of the consolidated balance sheet and in the reporting and classification of items in the consolidated statements of income and of cash flows. Right-of-use assets under leases are now reported separately in non-current assets. The lease liabilities are recognized according to their maturity. Under IFRS 16, the recognition of lease expenses is replaced by a depreciation charge on the right-of-use assets and by interest expense on the lease liabilities. The depreciation on the right-of-use assets leads to an increase in operating cash flow. At the same time, the repayments of the lease liabilities give rise to a cash outflow from financing activities.

For Comet, the initial retrospective application at January 1, 2018 resulted in the recognition of CHF 14.3 million in right-of-use assets from leases and CHF 16.6 million in lease liabilities. At December 31, 2018, the right-of-use assets from leases were CHF 12.1 million and the lease liabilities were CHF 14.2 million. The full retrospective method has the effect of “front-loading” the expenses, i.e., of shifting them to an earlier point in time, compared to the treatment of operating leases under IAS 17. Depreciation is generally applied on a straight-line basis over the term of the lease, while the interest expense declines with the amortization of the lease liability over time. For Comet, at January 1, 2018, this effect led to a reduction of CHF 1.8 million in retained earnings (at December 31, 2018, the effect was a reduction of CHF 1.7 million). This effect also led to the recognition of a deferred tax asset of CHF 0.5 million at January 1, 2018 and at December 31, 2018. For the period from January 1 to December 31, 2018, the application of IFRS 16 resulted in an increase of CHF 5.2 million in EBITDA (with an increase of 1.2 percentage points in EBITDA margin). In the statement of cash flows for fiscal 2018, the effect was an increase of CHF 5.3 million both in net cash provided by operating activities and in net cash used in financing activities.

Initial recognition of leases
At the inception of every contract, Comet assesses whether it contains a lease. A lease exists only if the contract gives Comet the right of use to an asset for a period of time and substantially all of the economic benefit from the asset accrues to Comet. For all leases, Comet separates lease components from non-lease components. No assets and liabilities are recognized for leases with a term of one year or less and for leases of low-value assets (with a value when new of less than CHF 5,000); the expenses for these are recognized directly in the income statement.

The initial measurement of the right of use for a leased asset is made at the inception of the lease by calculating the present value of the lease payments, plus initial direct costs, plus estimated costs for dismantling, removal and restoration (if contractually required), less lease incentives received.

The time of lease inception is as a rule taken to be the start date of the contract, unless there are sound reasons for regarding a different date as more appropriate. The useful life is deemed to be the period for which Comet has enforceable rights and obligations with respect to the leased asset. The useful life may be affected by options. The right-of-use asset is depreciated over the shorter of the term of the lease or the useful life of the underlying assets.

Lease payments are either agreed fixed amounts, or contain variable elements linked to an index (for example, a reference rate of interest for mortgages). Comet primarily has leases with fixed payments, which includes leases with rent-free periods and ones with rising payments. Leases with variable payments are immaterial.

Options and modifications
Comet's leases have different extension options, which can be summarized as follows:
- Non-permanent leases with time-limited extension options
- Indefinite leases with active or passive (automatic) exercise of the extension options

Options are included in the calculation only if, taking into account all significant determining factors, they are considered highly likely to be exercised. For indefinite leases, the following principles apply (the extension periods cited are from the lease inception or from the expiry of the minimum lease term):
- For buildings and warehouses, a maximum extension of three years is assumed.
- For plant and equipment, a maximum extension of two years is assumed.
- For vehicles and other tangible assets, a maximum extension of one year is assumed.

Exceptions to these policies are made only when there is sound evidence in support of doing so.

In the event of a material change during the term of a lease, Comet remeasures the lease liability at the date of the change. Adjustments to the lease liability are deducted from or added to the corresponding right-of-use asset. Any difference remaining upon early termination of a lease is derecognized through profit or loss.

In the initial application of IFRS 16, Comet treated all extension options relating to leases in force at January 1, 2018 as having been exercised and included them in the present value calculation at the inception of the respective lease.

Discount rate

For discounting the lease payments, Comet uses the interest rate implicit in the lease, or the incremental borrowing rate if the implicit rate cannot be determined. The incremental borrowing rate (IBR) is determined by reference to a risk-free bond from the currency area where the underlying leased asset is located. Moreover, the determination of the IBR takes into account the start year of the lease as well as the lease term. In arriving at the IBR, Comet considers its own credit risk. This is quantified as the average of the risk premiums of interest-bearing debt financing obtained in the recent past. The calculation of the incremental borrowing rate is updated at regular intervals or when a material event requires it.

Impairment test

Comet applies IAS 36, which prescribes the periodic impairment testing of all cash generating units. As Comet's leases in themselves do not represent cash generating units, they are assigned to the higher-level unit for the purpose of impairment testing.

The rights of use are tested for impairment when there is an indication that they may be impaired. Further information on the impairment test is provided in the section "Measurement and recognition policies" (note 2.7) and in note 20.

2.3 New accounting rules becoming effective in subsequent periods

Standard	Expected impact	Effective date	Planned adoption by Comet
IFRS 3 - Business Combinations (amendment): Definition of a Business	(1)	Jan. 1, 2020	Fiscal year 2020
IAS 1 - Presentation of Financial Statements (amendment): Definition of Material	(1)	Jan. 1, 2020	Fiscal year 2020
IAS 8 - Accounting Policies, Changes in Accounting Estimates and Errors (amendment): Definition of Material	(1)	Jan. 1, 2020	Fiscal year 2020
IFRS 7 - Financial Instruments: Disclosures (amendment): Interest Rate Benchmark Reform	(1)	Jan. 1, 2020	Fiscal year 2020
IFRS 9 - Financial Instruments (amendment): Interest Rate Benchmark Reform	(1)	Jan. 1, 2020	Fiscal year 2020

(1) Expected to have no, or no significant, impact on the financial position, results of operations and cash flows.

2.4 Changes in presentation

Foreign currency translation gains and losses arising on the same position are no longer presented in gross terms but net. This change applies, for example, to unrealized translation gains or losses on loans held in foreign currency. The change makes the reported financing expense and income more meaningful and easier to understand, and has no impact on the Group's earnings. The comparative data have been restated as follows:

Fiscal year 2018 [1]

	Reported	Change in presentation	Adjusted
Interest expense	1,585	–	1,585
Losses on derivatives used for currency hedging	1,702	–	1,702
Foreign currency translation losses	6,794	(3,078)	3,716
Total financing expenses	**10,081**	**(3,078)**	**7,003**
Interest income	30	–	30
Gains on derivatives used for currency hedging	647	–	647
Foreign currency translation gains	5,885	(3,078)	2,807
Total financing income	**6,562**	**(3,078)**	**3,484**

[1] Restated for IFRS 16 (see note 2.2).

2.5 Estimates

Comet's consolidated financial statements contain assumptions and estimates that affect the reported financial position, results of operations and cash flows. These assumptions and estimates were made on the basis of management's best knowledge at the time of preparation of the accounts. Actual results may differ from the values presented. The following estimates have the greatest effects on the consolidated financial statements:

- Intangible assets (see note 19 and 20): For acquisitions, the fair value of the acquired net assets (including acquired intangible assets) is estimated. Any amount paid in excess of this estimate represents goodwill. Intangible assets with a finite life are written off over the expected period of use; those with an indefinite life (primarily goodwill and rights to trademarks and names) are not amortized but are tested annually for impairment. Especially in the determination of the value in use of goodwill and rights to trademarks and names, differences between assumed and actual outcomes could lead to changes in the results of impairment testing. The assumptions concerning the achievable margins and the growth rates have a significant impact on impairment test outcomes. The valuation of goodwill and other intangibles, as well as the estimation of useful life, have an effect on the consolidated financial statements.
- Provisions (see note 24) are, by definition, liabilities of uncertain amount. Future events can thus lead to adjustments that affect income.

- Deferred tax assets (see note 11) are recognized only if it is likely that taxable profits will be earned in the future. The tax planning is based on estimates and assumptions as to the future profit trajectories of the Group companies that may later prove incorrect. This can lead to changes with an effect on income.
- Employee benefit plans (see note 25): The Group operates employee benefit plans for its staff that are classified as defined benefit plans under IFRS. These defined benefit plans are valued annually, which requires the use of various assumptions. Differences between the actual outcomes and the assumptions, particularly as to the discount rate for future obligations and as to life expectancy, may have effects on the valuation of plan assets and thus on the financial position of the Group. The impact of the most important parameters on the net present value of the obligation is presented in note 25.

2.6 Consolidation

2.6.1 Basis of consolidation

There were no changes in the basis of consolidation from the prior year. The consolidated financial statements comprise the accounts of the companies listed below.

Company	Registered office	Equity interest in %	
		2019	2018
Comet Holding AG	Flamatt, Switzerland	100%	100%
Comet AG	Flamatt, Switzerland	100%	100%
Comet Electronics (Shanghai) Co. Ltd.	Shanghai, China	100%	100%
Comet Mechanical Equipment (Shanghai) Co. Ltd.	Shanghai, China	100%	100%
Comet Technologies USA, Inc.	Shelton, CT, USA	100%	100%
Comet Technologies Korea Co. Ltd.	Suwon, Korea	100%	100%
Yxlon International GmbH	Hamburg, Germany	100%	100%
Yxlon International A/S	Taastrup, Denmark	100%	100%
Yxlon International KK	Yokohama, Japan	100%	100%
Yxlon (Beijing) X-Ray Equipment Trading Co. Ltd.	Beijing, China	100%	100%

2.6.2 Method of consolidation

The consolidated financial statements represent the aggregation of the annual accounts of the individual Group companies, which are prepared using uniform accounting principles. Those companies controlled by Comet Holding AG are fully consolidated. This means that these companies' assets, liabilities, equity, expenses and income are entirely included in the consolidated financial statements. All intragroup balances and transactions, unrealized gains and losses resulting from intragroup transactions, and dividends are eliminated in full.

Acquisitions and goodwill

Companies are consolidated from the date on which effective control passes to the Group. Consolidation ends only when effective control ceases. On acquisition, the identifiable assets, liabilities and contingent liabilities are measured at fair value and included in the accounts using the acquisition method. For acquisitions, intangible assets that arise from a contractual or legal right or are separable from the business entity, and whose fair value can be measured reliably, are reported separately. Goodwill, being the excess of the aggregate consideration transferred over the fair value of the net assets of the acquired subsidiary, is initially measured at cost. If the aggregate consideration transferred is lower than the fair value of the acquired net assets, the difference is recognized as negative goodwill in other operating income at the acquisition date. Goodwill and other intangible assets are allocated on acquisition to those companies expected to benefit from the acquisition or to generate future cash flows as a result of it. When Group companies are sold, the difference between their sale price and their net assets, plus accumulated currency translation differences, is recognized as operating income in the consolidated statement of income.

Foreign currency translation

The functional currency of the Group companies is the respective national currency. Transactions in a currency other than the functional currency are translated at the exchange rate prevailing at the transaction date. Financial assets and liabilities are translated at the balance sheet date at the exchange rate as of that date; the resulting currency translation differences are reported in the income statement. The consolidated financial statements are presented in Swiss francs. The financial statements of the Group companies are translated at the average exchange rates for the year (the "average rate" in the table below) for the income statement and at year-end rates (the "closing rate") for the balance sheet. The resulting currency translation differences are recognized in other comprehensive income. Currency translation differences from intragroup loans for the long-term financing of Group companies are also recognized in other comprehensive income, to the extent that repayment is neither planned nor is likely to occur in the foreseeable future.

The exchange rates used to translate the most important currencies are listed below:

			Closing rate		Average rate	
Country or region			**Dec. 31, 2019**	Dec. 31, 2018	**2019**	2018
USA	USD	1	0.968	0.985	0.994	0.978
Eurozone	EUR	1	1.085	1.126	1.113	1.155
China	CNY	1	0.139	0.143	0.144	0.148
Japan	JPY	100	0.891	0.894	0.912	0.886
Denmark	DKK	1	0.145	0.151	0.149	0.155
Republic of Korea	KRW	1,000	0.838	0.885	0.853	0.889

2.7 Measurement and recognition policies

Revenue recognition (sales and other income)
Net sales represent the revenue from the sale of goods and services to third parties, net of rebates and other price reductions. The Group's revenue is derived from the sale of goods (including spare parts) by the PCT, IXT and EBT divisions and the sale of systems (including services such as installation) by the IXS division. Revenue from the sale of goods, including also spare parts, systems and system-related services, is as a rule recognized on the basis of a single performance obligation, which is satisfied at a specific point in time. The performance obligation is satisfied, and the revenue recognized, when the customer acquires control of the product or service. In the sale of goods that are not systems, the transfer of control generally occurs at the time of delivery. Performance obligations for system sales (including for installation) are fulfilled at the time of acceptance by the customer. In connection with both non-system goods and with systems, Comet also offers services. Warranty obligations for providing an additional service to the customer (service-type warranties), such as an extension of the warranty period, are separate performance obligations and the revenue associated with them is recognized over time. For general maintenance services and defect correction intended to ensure that the delivered good is, or performs, as specified in the contract (assurance-type warranties), the estimated cost of the liability is recognized as a provision in accordance with IAS 37.

Customer contributions to development projects and payments for the delivery of the respective first prototype are recorded in other operating income; subsequent deliveries of prototypes are reported as sales.

Variable price elements (variable consideration) exist both in retroactive rebates when the quantity of products purchased exceeds a certain threshold in the calendar year, and in individual discounts on products. The amount of the rebate is estimated using the most-likely-amount method and as a rule is allocated proportionately to all performance obligations under the contract.

Sales commissions owed for agent activities are capitalized at contract inception as incremental costs attributable to obtaining a contract and a liability of equal amount is recognized for sales commissions. Their recognition as an expense occurs as soon as Comet has transferred control of the products to the customer. No interest effect is recognized for contract liabilities and prepayments by customers, as the period between the time of transfer of a promised good or service to the customer and the time of payment is not more than one year.

Financial assets and liabilities
Financial assets are initially measured at fair value (market value), including transaction costs, except in the case of financial assets categorized as at fair value through profit or loss, for which transaction costs are recorded directly in financing expenses. All purchases and sales of financial assets are recognized at the transaction date.

- Financial items at fair value through profit or loss: These include all derivatives, trading positions, and certain financial assets and liabilities designated as falling into this category. These assets are recognized at fair value in the balance sheet. Changes in value are reported as financing income or expense in the reporting period in which they occur.
- Financial items at amortized cost: These are measured at cost using the effective interest method.

Fair value is determined based on quoted or other market prices. In the fiscal year as in the prior year, no hedge accounting under IFRS 9 or IAS 39 was applied to any hedging transactions. Financial assets are recognized as soon as Comet acquires control of them, and derecognized when it ceases to have control, i.e., when it has sold the rights or they have lapsed. Financial liabilities are derecognized when the obligation specified in the contract is discharged or is canceled or expires.

Cash and cash equivalents
In addition to cash on hand and balances in checking accounts at banks, cash and cash equivalents can also include fixed-term deposits with original maturities of up to three months.

Trade and other receivables and contract assets
Trade receivables, other receivables and contract assets are reported at their face value less any necessary impairment charges. Comet provides for impairment using the simplified approach by recognizing an allowance in the amount of the losses expected over the remaining life of the instruments (known as the expected credit loss model). For specific doubtful arrears with objective indications of impairment, impairment charges are applied individually.

Whether a receivable or a contract asset is recognized is governed by whether the right to consideration is unconditional (leading to recognition of a receivable) or conditional (leading to recognition of a contract asset).

Inventories
Inventories are recorded at the lower of cost and net realizable value. Net realizable value represents the estimated normal sale price less the costs of completion, marketing, selling and distribution. Raw materials and purchased products are measured using the weighted-average method; internally produced goods are measured at target costs. Inventories include proportionate shares of production overheads.

Property, plant and equipment
Property, plant and equipment are stated at cost less accumulated depreciation and impairment. Borrowing costs related to qualifying assets form part of the historical cost. Depreciation is provided on a straight-line basis over the estimated useful life of the assets. The expense for depreciation of property, plant and equipment is recognized in the income statement under that expense category which corresponds to the function of the particular asset in the Group. Land values are not depreciated. Impairment charges are recognized as a

separate line item under accumulated depreciation and impairment. Maintenance costs are recognized as assets only if the maintenance extends the expected life of the asset, expands production capacity or otherwise increases asset values. The cost of maintenance and repair that do not increase asset values is charged directly to income. The following estimated useful lives are applied in determining depreciation:

Buildings	20–40 years
Plant and equipment	6–10 years
Other tangible assets	3–10 years

Intangible assets
The intangible assets recognized are goodwill, rights to trademarks and names, customer lists, technology, licenses, patents, and software. Intangible assets are recognized at cost and generally amortized on a straight-line basis over their expected useful life. Goodwill and acquired rights to trademarks and names are not amortized but are tested annually for impairment (see section "Impairment of non-current assets"). The expense for amortization of intangible assets with finite useful lives is recognized in the income statement under that expense category which corresponds to the function of the particular asset in the Group. The following estimated useful lives are applied in determining amortization:

Customer lists	10–15 years
Technology	5–10 years
Computer software	3–5 years

Provisions
Provisions are recognized only where Comet has a present obligation to a third party arising from a past event and the amount of the obligation can be estimated reliably. No provisions are recognized for possible losses that may result from future events.

Provisions are classified as current to the extent that the related cash outflows are expected to occur within one year from the balance sheet date. Conversely, the cash outflows in respect of non-current provisions are expected to occur more than twelve months after the balance sheet date. If the interest effect is material, the cash outflows are discounted.

Post-employment benefits
Comet maintains post-employment benefit plans for its employees which differ according to the local circumstances of the individual Group companies. The benefit plans are financed by contributions to benefit arrangements that are separate legal entities (foundations or insurance companies) or by the accumulation of reserves in the balance sheet of the respective Group company. In the case of defined contribution plans or economically equivalent arrangements, the expenses accrued in the reporting period represent the agreed contributions of the Group company. For defined benefit plans, the service costs and the present value of the defined benefit obligation are

calculated in actuarial valuations by independent experts, using the projected unit credit method. The calculations are updated annually. The surplus or deficit recognized in the balance sheet is equal to the present value of the defined benefit obligation as determined by the actuary, less the fair value of plan assets. Any resulting net surplus is recognized as an asset only to the extent of the potential economic benefit that may be realized from this asset in the future, taking into consideration IFRIC 14. The expense charged to income is the actuarially determined service cost plus the net interest cost. Actuarial gains and losses are recognized in other comprehensive income. They comprise experience adjustments (the effects of differences between the previous actuarial assumptions and the observed outcomes) and the effects of changes in actuarial assumptions (particularly regarding the discount rate and life expectancy).

Long-term employee benefits

Comet grants length-of-service awards to its employees after a certain number of years of service, in the form of lump-sum payments that increase in amount with the number of years of employment. Comet calculates the resulting obligation using the projected unit credit method. The calculation is updated annually. Any actuarial gains or losses from the remeasurement are immediately taken to income.

Share-based payments

Part of the variable compensation of the members of the Executive Committee under the short-term incentive plan (STIP), and part of the fixed compensation of the Board of Directors, is paid in stock. In addition, the Executive Committee is granted stock under a long-term incentive plan (LTIP). The expense is recognized at the value of the stock earned, measured at the quoted market price (fair value) at the grant date. The amount accrued for those components of compensation which must be equity-settled (i.e., for which there is no option of cash payment) is recognized directly in equity. For components which the beneficiary can choose to receive in equity or in cash, the value of the option which this choice represents is determined and recognized as an increase in equity, while the rest of the obligation is recorded as a liability.

Income tax

The income tax expense for the reporting period is composed of current taxes and deferred taxes.

Current taxes

Current tax liabilities and assets for the current period and prior reporting periods are recognized based on the amount expected to be payable to or refunded by the tax authorities. They are calculated based on the tax regulations and tax rates in effect at the balance sheet date.

Deferred taxes

Deferred taxes are accounted for by the liability method. Under this approach, the income tax effects of temporary differences between the tax bases and the values used in the consolidated financial statements are recorded as non-current liabilities or non-current assets. Deferred taxes are calculated at actual or expected local tax rates. Changes in deferred taxes are included in income tax expense in the income statement, except for deferred taxes in respect of items that are recognized outside profit or loss. These latter deferred taxes are likewise recognized outside profit or loss; according to the underlying accountable event, they are recognized either in other comprehensive income or directly in equity. Deferred tax liabilities are recognized on all taxable temporary differences except for goodwill. Deferred tax assets are recognized for all deductible temporary differences, the carryforward of unused tax credits and any unused tax losses. Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which the deductible temporary differences and the carryforward of unused tax credits and unused tax losses can be utilized, except:

- When the deferred tax asset relating to the deductible temporary difference arises from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit for the period nor taxable profit or loss.
- In respect of deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures, deferred tax assets are recognized only to the extent that it is probable that the temporary differences will reverse in the foreseeable future.

Impairment of non-current assets

The value of property, plant and equipment and other non-current assets, including intangibles, is reviewed whenever it appears possible, as a result of changed circumstances or events, that the assets' carrying amount represents an overvaluation. Intangible assets that are in the process of being generated are tested for impairment annually. If the carrying amount exceeds the amount recoverable through use or sale of the asset, the carrying amount is reduced to this recoverable amount and the difference is recorded as an impairment charge in the income statement. The recoverable amount is the higher of realizable value or value in use. Value in use is determined on the basis of discounted expected future cash flows. Any acquired goodwill and any rights to trademarks or names with an indefinite useful life are not amortized but are reviewed annually at the same date for impairment. This impairment test is based on the results for the fiscal year, the rolling multi-quarter forecast and the rolling multi-year plan.

3 Revenue from contracts with customers

In the following tables, sales revenue is analyzed by region and by market sector.

In thousands of CHF	Plasma Control Technologies (PCT)		X-Ray Systems (IXS)		Industrial X-Ray Modules (IXM)		ebeam Technologies (EBT)		Consolidated	
	2019	2018	2019	2018	2019	2018	2019	2018	2019	2018
Geographic region										
Europe	9,236	8,947	34,192	35,661	26,689	29,431	12,448	13,979	82,564	88,018
USA	109,230	165,224	18,866	15,167	22,446	23,526	1,218	3,422	151,760	207,338
Asia	33,099	37,925	75,462	70,981	13,814	13,978	1,097	1,866	123,472	124,751
Rest of world	169	101	10,826	13,501	2,096	1,984	718	663	13,810	16,249
Total	**151,734**	**212,197**	**139,346**	**135,310**	**65,045**	**68,919**	**15,481**	**19,930**	**371,606**	**436,356**

Sales split by market sector

In thousands of CHF	**2019**	2018
PCT		
Semiconductor	127,716	187,417
Flat panel	8,627	8,741
Others	15,391	16,039
Total PCT	**151,734**	**212,197**
IXS		
Automotive	52,889	55,955
Electronics	41,692	40,787
Science & new materials	16,377	17,527
Aerospace	20,758	14,395
Others	7,630	6,646
Total IXS	**139,346**	**135,310**
IXM		
Non-destructive testing	43,320	47,210
Security	11,253	11,372
Others	10,472	10,338
Total IXM	**65,045**	**68,919**
Total EBT	**15,481**	**19,930**
Total net sales	**371,606**	**436,356**

The aggregate amount of the transaction prices allocated to performance obligations that were unsatisfied or partly unsatisfied at December 31, 2019 was CHF 138 million (prior year: CHF 114 million). Comet will realize this revenue as soon as the performance obligations have been fulfilled and the customers have acquired control of the products or services. It is expected that this will generally be the case in the next 12 to 24 months.

Contract balances

Opening and closing balances of receivables and contract assets are reported in note 13. Contract liabilities from contracts with customers are presented in the balance sheet. The contract assets consisted mainly of the rights to consideration for product deliveries and services of the X-Ray Systems division that were completed but not yet billed at the balance sheet date. The contract liabilities consisted of prepayments received from customers. The revenue recognized in 2019 from contract liabilities existing at the beginning of the reporting period amounted to CHF 14.7 million (prior year: CHF 22.6 million).

Material changes in contract balances result from the receipt of customer payments and the invoicing of satisfied performance obligations.

4 Segment reporting

The Group is managed on the basis of the following four operating divisions, which are delineated based on their products and services. For financial reporting purposes the divisions are also referred to here as "operating segments" or "segments".

- The **Plasma Control Technologies (PCT)** division develops, manufactures and markets vacuum capacitors, radio frequency (RF) generators and RF impedance matching networks for the high-precision control of plasma processes required, for instance, in the production of memory chips and flat panel displays.
- The **X-Ray Systems (IXS)** division develops, manufactures and markets x-ray systems, and provides related services, for non-destructive examination using x-ray and microfocus technology and computed tomography.
- The **Industrial X-Ray Modules (IXM)** division develops, manufactures and markets highly compact x-ray sources and portable x-ray modules for non-destructive testing, steel metrology, and security inspection.
- The **ebeam Technologies (EBT)** division develops, manufactures and markets compact ebeam sets for the treatment of surfaces in the food and printing industries.

Segment operating income represents all revenues and expenses attributable to a particular division. The only revenues and expenses not allocated to the segments are those of Comet Holding AG, certain government grants, and net financial items and income taxes. These unallocated expenses and revenues are reported in the "Corporate" column. Transactions between the segments are invoiced at prices also charged to third parties.

The segment assets and liabilities represent all operating items. The following assets and liabilities are not allocated to operating segments: the assets and liabilities of Comet Holding AG, all cash and cash equivalents, all debt and all income tax assets and liabilities. These unallocated assets and liabilities are reported in the "Corporate" column.

4.1 Operating segments

Fiscal year 2019

In thousands of CHF	Plasma Control Technologies (PCT)	X-Ray Systems (IXS)	Industrial X-Ray Modules (IXM)	ebeam Technologies (EBT)	Elimination of intersegment sales	Corporate	Consolidated
Net sales							
External net sales	151,734	139,346	65,045	15,481	–	–	371,606
Intersegment sales	–	205	13,095	–	(13,301)	–	–
Total net sales	**151,734**	**139,551**	**78,141**	**15,481**	**(13,301)**	**–**	**371,606**
Earnings							
Segment operating income/(loss)	8,206	6,301	16,338	(7,903)	(473)	–	22,468
Unallocated costs	–	–	–	–	–	(2,530)	(2,530)
Operating income	**8,206**	**6,301**	**16,338**	**(7,903)**	**(473)**	**(2,530)**	**19,939**
Financing expenses							(6,738)
Financing income							2,162
Income before tax							**15,363**
Income tax							(3,336)
Net income							**12,027**
EBITDA	**15,366**	**12,026**	**21,742**	**(6,156)**	**(473)**	**(2,530)**	**39,974**
EBITDA in % of sales	10.1%	8.6%	27.8%	−39.8%			10.8%
Assets and liabilities at Dec. 31, 2019							
Segment assets	109,507	112,813	82,941	16,801	–	69,648	391,710
Segment liabilities	(31,904)	(66,320)	(15,610)	(6,164)	–	(75,764)	(195,762)
Net assets	**77,603**	**46,493**	**67,331**	**10,637**	**–**	**(6,116)**	**195,948**
Other segment information							
Capital expenditure	7,855	8,003	4,474	860	–	–	21,194
Depreciation and amortization	7,160	5,725	5,404	1,746	–	–	20,035
Change in provisions	(2,080)	(482)	(152)	151	–	–	(2,563)
Other non-cash expense/(income)	1,104	(58)	(623)	420	38	162	1,044
Number of employees at year end	544	439	279	68	–	–	1,330

Fiscal year 2018 [1]

In thousands of CHF	Plasma Control Technologies (PCT)	X-Ray Systems (IXS)	Industrial X-Ray Modules (IXM)	ebeam Technologies (EBT)	Elimination of intersegment sales	Corporate	Consolidated
Net sales							
External net sales	212,197	135,310	68,919	19,930	–	–	436,356
Intersegment sales	–	359	12,276	63	(12,698)	–	–
Total net sales	**212,197**	**135,669**	**81,195**	**19,993**	**(12,698)**	**–**	**436,356**
Earnings							
Segment operating income/(loss)	38,367	(5,190)	16,126	(28,223)	278	–	21,358
Unallocated costs	–	–	–	–	–	(2,587)	(2,587)
Operating income	**38,367**	**(5,190)**	**16,126**	**(28,223)**	**278**	**(2,587)**	**18,771**
Financing expenses							(7,003)
Financing income							3,484
Income before tax							**15,251**
Income tax							(2,905)
Net income							**12,347**
EBITDA	**43,479**	**969**	**20,680**	**(19,853)**	**278**	**(2,587)**	**42,966**
EBITDA in % of sales	20.5%	0.7%	25.5%	−99.3%			9.8%
Assets and liabilities at Dec. 31, 2018							
Segment assets	109,198	108,349	90,479	18,601	–	53,638	380,266
Segment liabilities	(29,669)	(56,283)	(20,575)	(5,047)	–	(70,400)	(181,974)
Net assets	**79,529**	**52,066**	**69,904**	**13,554**	**–**	**(16,762)**	**198,292**
Other segment information							
Capital expenditure	13,357	2,468	13,990	3,140	–	–	32,956
Depreciation and amortization	5,112	6,159	4,555	8,370	–	–	24,195
Change in provisions	906	2,902	(318)	(1,228)	–	–	2,262
Other non-cash expense/(income)	315	(69)	1,150	508	43	1,177	3,125
Number of employees at year end	535	420	314	77	–	–	1,346

[1] Restated for IFRS 16 (see note 2.2).

Reconciliation of aggregate segment assets and liabilities to consolidated results

In thousands of CHF	2019	2018 [1]
Operating segments' assets	322,062	326,628
Total cash and cash equivalents	60,255	43,007
Derivatives used for foreign exchange hedging	271	26
Tax receivables	609	2,893
Deferred tax assets	8,397	7,516
Comet Holding AG's receivables from third parties	115	196
Total assets	**391,710**	**380,266**
Operating segments' liabilities	(119,998)	(111,574)
Current and non-current debt	(71,893)	(67,812)
Derivatives used for foreign exchange hedging	(41)	(379)
Tax payables	(2,480)	(869)
Comet Holding AG's payables to third parties	(1,350)	(1,339)
Total liabilities	**(195,762)**	**(181,974)**

[1] Restated for IFRS 16 (see note 2.2).

4.2 Geographic information

Comet markets its products and services throughout the world and has its own companies in Switzerland, Germany, Denmark, the USA, China, Japan and South Korea. Net sales are allocated to countries on the basis of customer location.

Net sales by region

In thousands of CHF	2019	2018
Switzerland	11,446	3,208
Germany	32,821	36,726
Rest of Europe	38,297	48,084
Total Europe	**82,564**	**88,018**
Total USA	**151,760**	**207,338**
China	57,287	57,749
Japan	24,175	22,365
Rest of Asia	42,010	44,637
Total Asia	**123,472**	**124,751**
Rest of world	13,810	16,249
Total	**371,606**	**436,356**

Property, plant and equipment, right-of-use assets, and intangible assets by region

In thousands of CHF	2019	2018 [1]
Switzerland	115,218	115,342
Germany	39,951	35,784
USA	6,958	10,096
Rest of world	3,575	5,251
Total	**165,702**	**166,473**

[1] Restated for IFRS 16 (see note 2.2).

4.3 Sales with key accounts

In the year under review, the Plasma Control Technologies division recorded sales of CHF 84 million with its largest customer, which represented 22.7% of Group sales (prior year: CHF 115 million and 26.4%, respectively).

5 Other operating income

In thousands of CHF	**2019**	2018
Customers' contributions to development projects	1,623	2,136
Government grants	142	109
Income from the development of prototypes	3,166	1,508
Miscellaneous income	120	448
Total other operating income	**5,051**	**4,201**

6 Staff costs and staff count

6.1 Staff costs

In thousands of CHF	**2019**	2018
Wages and salaries	117,106	131,542
Employee benefits	20,810	21,588
Total staff costs	**137,917**	**153,130**

6.2 Staff count

	2019	2018
Number of employees (year-end)	1,330	1,346
Average full-time equivalents during the year	1,261	1,379

7 Development expenses

Development expenses comprise the costs of new-product development, improvement of existing products, and process engineering. Comet's development activities focus on the fields of vacuum technology, high voltage engineering and material science, and on the further development of the divisions' core products. In view of the uncertainty of future economic benefits that may flow from development projects, Comet as a rule does not capitalize development costs but charges them directly to the income statement.

8 Loss on disposal of businesses

No businesses were divested in the year under review.

In the prior year, at November 12, 2018, Comet transferred the ebeam systems business (a part of the EBT division) to a new owner, Tri-City Electric Co. in Davenport, Iowa, USA. The new owner acquired the following assets and assumed the following liabilities of the Davenport facility:

In thousands of CHF	Carrying amount Nov. 12, 2018
Trade and other receivables	1,084
Inventories	10,546
Prepaid expenses	87
Total assets	**11,717**
Trade payables and contract liabilities	(5,195)
Provisions	(220)
Total liabilities	**(5,415)**
Total net assets	**6,302**
Cash payment to new owner	(293)
Book loss on transfer	**(6,595)**

The loss on the transaction was tax-deductible. The tax effect was a reduction of CHF 1.7 million in tax expense.

9 Amortization and depreciation

In thousands of CHF	2019	2018 [1]
Amortization of intangible assets	4,602	5,255
Depreciation of right-of-use assets	4,433	4,364
Depreciation of property, plant and equipment	10,537	8,510
Total amortization and depreciation	**19,572**	**18,129**

Impairment of intangible assets	–	5,400
Impairment of property, plant and equipment	463	666
Total impairment	**463**	**6,066**

[1] Restated for IFRS 16 (see note 2.2).

Further information on the impairment charges related to the divestiture of the ebeam systems business in Davenport in 2018 is provided in note 20.

10 Financing income and expenses

In thousands of CHF	2019	2018 [1]
Interest expense	1,999	1,585
Losses on derivatives used for currency hedging	1,104	1,702
Foreign currency translation losses [2]	3,635	3,716
Total financing expenses	**6,738**	**7,003**

[1] Restated for IFRS 16 (see note 2.2).
[2] Adjusted (see note 2.4).

In thousands of CHF	2019	2018
Interest income	108	30
Gains on derivatives used for currency hedging	636	647
Foreign currency translation gains [1]	1,418	2,807
Total financing income	**2,162**	**3,484**

[1] Adjusted (see note 2.4).

In thousands of CHF	2019	2018 [1]
Net interest expense	1,890	1,555
Net foreign currency translation losses/(gains)	2,685	1,964

[1] Restated for IFRS 16 (see note 2.2).

Foreign currency translation gains and losses resulted largely from items denominated in US dollars and euros.

11 Income tax

11.1 Current and deferred income tax expense

In thousands of CHF	2019	2018 [1]
Current income tax expense in respect of the current year	3,371	3,220
Current income tax expense in respect of prior years	662	194
Deferred income tax (credit)	(696)	(509)
Total income tax expense	**3,336**	**2,905**

[1] Restated for IFRS 16 (see note 2.2).

11.2 Reconciliation of tax expense

In thousands of CHF	2019	2018 [1]
Income before tax	15,363	15,251
Expected income tax at base tax rate of 24% (prior year: 24%)	3,687	3,660
Effect of tax rates other than base tax rate	671	52
Effect of tax relief from canton of Fribourg	(399)	(520)
Effect of non-tax-deductible expenses	202	442
Effect of change in tax rate on deferred income tax	(128)	(29)
Recognition and offset of tax loss carry-forwards not recognized in prior years	–	(675)
Effect of credits for R&D and domestic manufacturing	(382)	–
Effect of income tax from other periods	(662)	(194)
Effect of non-refundable withholding tax	277	193
Other effects	70	(24)
Income tax reported in the income statement	**3,336**	**2,905**
Effective income tax rate in % of income before tax	21.7%	19.0%

[1] Restated for IFRS 16 (see note 2.2).

Comet AG, based in Flamatt, has been granted conditional tax relief by the canton of Fribourg in the form of a reduction in cantonal and municipal taxes for the period to 2022. For 2019 the tax reduction amounted to 50% (prior year: 50%).

11.3 Deferred tax assets and liabilities

Deferred tax assets and liabilities can be analyzed as follows:

In thousands of CHF	2019 Assets	2019 Liabilities	2018 [1] Assets	2018 [1] Liabilities
Financial instruments	41	(58)	39	(6)
Receivables	2,121	(985)	979	(133)
Inventories	4,312	(1,426)	3,832	(1,064)
Property, plant and equipment	267	(625)	279	(628)
Right-of-use assets	1	(2,376)	–	(3,583)
Intangible assets	0	(3,184)	1	(3,274)
Trade payables and other liabilities	4,653	(420)	4,454	(184)
Accrued expenses	1,243	(0)	429	(52)
Provisions	894	(1)	1,020	(1)
Employee benefit plan liabilities	1,748	(0)	1,364	–
Tax loss carryforwards, and tax credits for R&D and domestic manufacturing	2,192	–	4,046	
Total gross deferred tax of Group companies	**17,473**	**(9,076)**	**16,442**	**(8,927)**
Netting of deferred tax by Group companies	(9,076)	9,076	(8,927)	8,927
Amounts in the consolidated balance sheet	**8,397**	**–**	**7,516**	**–**

[1] Restated for IFRS 16 (see note 2.2).

The deferred tax assets and liabilities were measured at local tax rates, ranging from 13% to 35%. No deferred tax liabilities were established for temporary differences of CHF 68.0 million (prior year: CHF 75.6 million) in respect of the value of the ownership interests in Group companies. Distributions of retained earnings by subsidiaries are not expected to have an effect on income taxes, except for future distributions from China and Korea. There were no tax provisions for non-refundable withholding taxes on future distributions of foreign subsidiaries to Comet Holding AG. Distributions by Comet Holding AG to its shareholders have no effect on the reported or future income taxes.

11.4 Movement in deferred tax assets and liabilities

In thousands of CHF	2019	2018 [1]
Net asset at January 1	**7,516**	**6,916**
Origination and reversal of temporary differences recognized in the income statement	2,549	(2,853)
Recognition of deferred tax assets on loss carryforwards and R&D credits	451	3,772
Use of tax loss carryforwards	(2,304)	(408)
Deferred tax credit in the income statement	**696**	**510**
Origination and reversal of temporary differences recognized in other comprehensive income	361	132
Foreign currency translation differences	(177)	(42)
Net asset at December 31	**8,397**	**7,516**

[1] Restated for IFRS 16 (see note 2.2).

11.5 Tax loss carryforwards

Deferred tax assets, including tax loss carryforwards and expected tax credits, are recognized only if it is likely that future taxable profits will be available to which these deferred tax assets can be applied. Temporary differences for which no tax assets were recognized were nil (prior year: nil).

At the balance sheet date of December 31, 2019, tax loss carryforwards stood at CHF 5.0 million (prior year: CHF 13.0 million). Including tax credits for R&D and domestic manufacturing, the resulting deferred tax assets were CHF 2.2 million (prior year: CHF 4.0 million). The existing loss carryforwards can be carried forward indefinitely.

In the fiscal year, there were no unrecognized deferred tax assets from tax loss carryforwards (prior year: nil).

12 Earnings per share

Basic earnings per share represents the reporting period's consolidated net income divided by the average number of shares outstanding.

	2019	2018 [1]
Weighted average number of shares outstanding	7,762,845	7,757,904
Net income in thousands of CHF	12,027	12,347
Net income per share in CHF, diluted and basic	1.55	1.59

[1] Restated for IFRS 16 (see note 2.2).

There are no outstanding stock options or stock subscription rights that could lead to a dilution of earnings per share.

13 Trade and other receivables

In thousands of CHF	2019	2018
Trade receivables, gross	54,818	53,996
Impairment of trade receivables	(495)	(614)
Trade receivables, net	**54,323**	**53,382**
Refundable sales taxes and value-added taxes	4,392	2,648
Prepayments to suppliers	2,097	5,552
Contract assets	–	887
Sundry receivables	1,815	1,474
Total other receivables	**8,304**	**10,561**
Total trade and other receivables	**62,627**	**63,943**

The allowance account for impairment of trade receivables showed the following movement:

In thousands of CHF	2019	2018
January 1	**614**	**1,104**
Added	128	95
Released	(230)	(562)
Foreign currency translation differences	(17)	(23)
December 31	**495**	**614**

At the balance sheet date, complete impairment was recognized on CHF 0.4 million (prior year: CHF 0.5 million) of trade receivables. Within the item "total other receivables" and within contract assets, there were no amounts past due or written down. The Group does not hold security against trade and other receivables.

The aging schedule for past-due trade receivables on which impairment has been recognized is summarized in the table below

Fiscal year 2019

In thousands of CHF	Expected loss rate	Gross carrying amount Dec. 31, 2019	Expected credit loss Dec. 31, 2019	Net carrying amount Dec. 31, 2019
Trade receivables		**54,818**	**495**	**54,323**
Not past due	0.1%	49,078	48	49,030
Over 30 days past due, impairment recognized	0.2%	3,827	8	3,819
Over 60 days past due, impairment recognized	0.5%	698	4	694
Over 90 days past due, impairment recognized	1.0%	15	0	15
Over 120 days past due, impairment recognized	1.5%	1	0	1
Over 150 days past due, impairment recognized	36.3% [1]	1,199	435	764

[1] Individual impairment allowances included.

Fiscal year 2018

In thousands of CHF	Expected loss rate	Gross carrying amount Dec. 31, 2018	Expected credit loss Dec. 31, 2018	Net carrying amount Dec. 31, 2018
Trade receivables		**53,996**	**614**	**53,382**
Not past due	0.1%	46,892	68	46,824
Over 30 days past due, impairment recognized	0.3%	5,004	16	4,988
Over 60 days past due, impairment recognized	0.5%	575	3	572
Over 90 days past due, impairment recognized	1.1%	409	4	405
Over 120 days past due, impairment recognized	1.5%	212	3	209
Over 150 days past due, impairment recognized	57.4% [1]	905	519	386

[1] Individual impairment allowances included.

14 Other financial assets and liabilities

14.1 Other financial assets

In thousands of CHF	2019	2018
Other financial assets at fair value through profit or loss		
Derivatives used for foreign exchange hedging	271	26
Total other financial assets at fair value through profit or loss	**271**	**26**
Other financial assets at amortized cost		
Other non-current financial assets	367	209
Total other financial assets at amortized cost	**367**	**209**
Total other financial assets	**638**	**235**
Total current	271	26
Total non-current	367	209

14.2 Other financial liabilities

In thousands of CHF	2019	2018
Other financial liabilities at fair value through profit or loss		
Derivatives used for foreign exchange hedging	41	379
Total other financial liabilities at fair value through profit or loss	**41**	**379**

14.3 Derivative financial instruments

At the balance sheet date, open positions in forward exchange contracts were as follows:

In thousands of CHF	2019	2018
USD forward exchange contracts		
Contract amounts	14,741	21,763
Positive fair values	176	26
Negative fair values	12	284
JPY forward exchange contracts		
Contract amounts	5,248	2,197
Positive fair values	93	–
Negative fair values	24	79
CNY forward exchange contracts		
Contract amounts	902	858
Positive fair values	2	–
Negative fair values	5	16

The gains and losses from foreign exchange contracts are recognized as financing income or expense (see note 28). The contract amounts shown represent the notional principal amounts of the forward contracts. Consistent with the nature of the Group's activities, the forward exchange contracts have maturities of less than one year; most are due within six months.

15 Inventories

In thousands of CHF	2019	2018
Raw materials and semi-finished products	41,639	45,495
Work in process	17,128	14,470
Finished goods	26,417	31,125
Total inventories	**85,184**	**91,090**

The inventory amounts reflect any necessary individual write-downs for items with a market value below manufacturing cost. The expense recognized for inventory write-downs was CHF 4.6 million (prior year: CHF 5.5 million).

16 Prepaid expenses

In thousands of CHF	2019	2018
Contract costs	1,164	1,629
Other prepaid expenses	7,132	3,480
Total prepaid expenses	**8,296**	**5,109**

The contract costs represent capitalized sales commissions for agent activities (incremental costs directly attributable to obtaining a contract). In the fiscal year, sales commissions of CHF 3.4 million were recognized in the income statement (prior year: CHF 3.6 million).

The other prepaid expenses consisted largely of prepayments made for the subsequent fiscal year.

17 Property, plant and equipment

Fiscal year 2019

In thousands of CHF	Real estate	Plant and equipment	Other tangible assets	Assets under construction	Total property, plant and equipment
Cost					
January 1, 2019	**96,919**	**85,491**	**19,275**	**8,637**	**210,322**
Additions	951	5,761	453	6,540	13,705
Commissioning of assets under construction	225	4,417	612	(5,254)	–
Reclassifications	(1,706)	1,646	60	–	–
Disposals	(132)	(1,960)	(1,735)	–	(3,827)
Foreign currency translation differences	(21)	(523)	(403)	17	(930)
December 31, 2019	**96,236**	**94,832**	**18,262**	**9,940**	**219,269**
Accumulated depreciation					
January 1, 2019	**26,230**	**57,672**	**12,829**	**–**	**96,731**
Additions	2,512	5,467	2,558	–	10,537
Impairment	–	463	–	–	463
Reclassifications	(75)	69	6	–	–
Disposals	(132)	(1,805)	(1,599)	–	(3,536)
Foreign currency translation differences	(11)	(347)	(270)	–	(629)
December 31, 2019	**28,524**	**61,519**	**13,524**	**–**	**103,568**
Carrying amount					
January 1, 2019	70,689	27,819	6,446	8,637	113,591
December 31, 2019	**67,712**	**33,312**	**4,738**	**9,940**	**115,702**

The disposals of other tangible assets in the fiscal year included the reclassification of CHF 0.1 million (prior year: CHF 0.5 million) of internally produced demonstration equipment to inventories, which did not result in an outflow of funds.

Assets pledged or assigned as collateral for Group obligations
At December 31, 2019 and December 31, 2018, all real estate liens (mortgage notes in the amount of CHF 30.0 million) were held within the Group.

Fiscal year 2018

In thousands of CHF	Real estate	Plant and equipment	Other tangible assets	Assets under construction	Total property, plant and equipment
Cost					
January 1, 2018	**51,637**	**76,928**	**18,909**	**41,200**	**188,674**
Additions	8,431	11,368	1,084	7,837	28,720
Commissioning of assets under construction	36,872	2,527	1,004	(40,403)	–
Disposals	–	(5,076)	(1,495)	–	(6,571)
Foreign currency translation differences	(21)	(256)	(227)	3	(501)
December 31, 2018	**96,919**	**85,491**	**19,275**	**8,637**	**210,322**
Accumulated depreciation					
January 1, 2018	**24,998**	**57,020**	**11,601**	**–**	**93,618**
Additions	1,243	4,856	2,411	–	8,510
Impairment	–	535	131	–	666
Disposals	–	(4,567)	(1,140)	–	(5,707)
Foreign currency translation differences	(11)	(172)	(174)	–	(357)
December 31, 2018	**26,230**	**57,672**	**12,829**	**–**	**96,731**
Carrying amount					
January 1, 2018	26,639	19,908	7,309	41,200	95,056
December 31, 2018	**70,689**	**27,819**	**6,446**	**8,637**	**113,591**

For the building expansion completed at the end of 2018 and for the improvements to it, interest of CHF 0.6 million was capitalized (year under review: nil). The interest rate used was the effective interest rate of the bond (see note 21).

In the prior year, the divestiture of the ebeam systems business in Davenport resulted in an impairment charge of CHF 0.7 million and reductions in cost and accumulated depreciation of CHF 1.4 million for plant and equipment and of CHF 0.4 million for other tangible assets. At the time of the disposal, all items of property, plant and equipment had already been fully written off. Further information on the disposal is provided in note 8.

18 Right-of-use assets and lease liabilities

The rights of use and liabilities arising from leases showed the following movement:

Fiscal year 2019

In thousands of CHF	Right-of-use assets: Real estate	Plant and equipment	Other tangible assets	Total	Lease liabilities
January 1, 2019	**11,428**	**610**	**17**	**12,055**	**14,163**
Additions	3,858	504	1	4,363	4,363
Disposals	–	–	–	–	(62)
Depreciation, amortization and impairment	(3,973)	(451)	(9)	(4,433)	–
Accretion of interest	–	–	–	–	573
Repayment of lease liabilities	–	–	–	–	(5,440)
Foreign currency translation differences	(279)	(23)	–	(302)	(207)
December 31, 2019	**11,033**	**640**	**9**	**11,682**	**13,389**

The non-current lease liabilities largely have remaining maturities of two to five years. The expected future lease payments are presented in note 29.

The additions to right-of-use assets and lease liabilities were non-cash items and are thus not included in cash flow from investing activities.

Fiscal year 2018

In thousands of CHF	Right-of-use assets: Real estate	Plant and equipment	Other tangible assets	Total	Lease liabilities
January 1, 2018	**13,564**	**685**	**25**	**14,274**	**16,771**
Additions	1,916	386	–	2,303	2,303
Depreciation, amortization and impairment	(3,916)	(439)	(8)	(4,364)	–
Accretion of interest	–	–	–	–	698
Repayment of lease liabilities	–	–	–	–	(5,394)
Foreign currency translation differences	(137)	(22)	–	(159)	(216)
December 31, 2018	**11,428**	**610**	**17**	**12,055**	**14,163**

The composition of the lease expenses in fiscal 2019 and 2018 is shown below:

In thousands of CHF	2019	2018
Depreciation, amortization and impairment	4,433	4,364
Interest expenses	573	698
Expenses for short-term leases	103	122
Expense for low-value leases	7	62
Expense for variable lease payments not included in the measurement of lease liabilities	40	–
Total lease expenses	**5,155**	**5,246**

Comet has lease agreements containing extension and termination options (see note 2.2). At December 31, 2019, all options either deemed highly likely to be exercised or not to be exercised were taken into account in the valuation of the lease liabilities.

The undiscounted payments of options that were not exercised as at December 31, 2019 amounted to CHF 6.4 million due within the subsequent five years (prior year: CHF 5.9 million) and to CHF 11.8 million for option periods of more than five years (prior year: CHF 8.9 million).

19 Intangible assets

Fiscal year 2019

In thousands of CHF	Goodwill and trademarks	Customer lists	Technology	Software	Other intangible assets	Total intangible assets
Cost						
January 1, 2019	**28,412**	**20,916**	**2,432**	**21,614**	**276**	**73,650**
Additions	–	–	–	3,126	–	3,126
Reclassifications	–	–	–	241	(241)	–
Disposals	–	–	–	(67)	–	(67)
Foreign currency translation differences	(797)	(534)	(75)	(301)	(1)	(1,709)
December 31, 2019	**27,615**	**20,382**	**2,357**	**24,613**	**34**	**75,000**
Accumulated amortization						
January 1, 2019	**0**	**16,278**	**1,516**	**14,994**	**35**	**32,823**
Additions	–	1,301	281	3,020	–	4,602
Disposals	–	–	–	(67)	–	(67)
Foreign currency translation differences	–	(441)	(60)	(173)	(1)	(676)
December 31, 2019	**0**	**17,138**	**1,737**	**17,774**	**34**	**36,683**
Carrying amount						
January 1, 2019	28,412	4,638	916	6,620	241	40,827
December 31, 2019	**27,615**	**3,244**	**620**	**6,839**	**0**	**38,318**

Fiscal year 2018

In thousands of CHF	Goodwill and trademarks	Customer lists	Technology	Software	Other intangible assets	Total intangible assets
Cost						
January 1, 2018	**29,229**	**28,825**	**4,753**	**22,174**	**224**	**85,205**
Additions	–	–	401	1,291	241	1,933
Disposals	–	(7,529)	(2,654)	(1,612)	(188)	(11,983)
Foreign currency translation differences	(817)	(380)	(68)	(239)	(1)	(1,505)
December 31, 2018	**28,412**	**20,916**	**2,432**	**21,614**	**276**	**73,650**
Accumulated amortization						
January 1, 2018	**0**	**19,199**	**2,041**	**12,253**	**65**	**33,558**
Additions	–	1,470	367	3,413	5	5,255
Impairment	–	3,433	1,814	–	153	5,400
Disposals	–	(7,529)	(2,654)	(562)	(188)	(10,933)
Foreign currency translation differences	–	(295)	(52)	(110)	(0)	(457)
December 31, 2018	**0**	**16,278**	**1,516**	**14,994**	**35**	**32,823**
Carrying amount						
January 1, 2018	29,229	9,626	2,712	9,921	159	51,647
December 31, 2018	**28,412**	**4,638**	**916**	**6,620**	**241**	**40,827**

The categories "goodwill and trademarks", "customer lists" and "technology" were capitalized in connection with business combinations. The residual useful lives of the customer lists ranged up to five years.

Under a long-term brand strategy, the established Yxlon name is used alongside the Comet brand. The Group therefore deems the capitalized Yxlon brand to have an indefinite useful life.

The divestiture of the ebeam systems business in Davenport in the prior year resulted in an impairment charge of CHF 5.4 million and reductions in cost and accumulated amortization of CHF 4.4 million for customer lists and of CHF 2.7 million for technology. Further information on the disposal is provided in note 8.

20 Impairment test of goodwill and intangible assets with indefinite useful lives

The impairment test for goodwill and other intangible assets with indefinite useful lives was performed as at September 30, 2019. For the purpose of the impairment test, the assets to be tested were allocated to and measured as the following two cash generating units, at the level of the IXS division and (within the IXM division) at the level of the IXT business unit:

- X-Ray Systems (IXS), as the relevant cash generating unit for all activities of the historically acquired Yxlon group and for the FeinFocus product group, with the exception of the generator business;
- Industrial X-Ray Technology (IXT), for the generator business acquired as part of the acquisition of Yxlon.

The impairment test is based on the value in use method. The recoverable amount is determined from the present value of the future cash flows (DCF valuation). The calculations are based on the Board-approved rolling forecast current at the time of the impairment test, and on the Board-approved rolling medium-term plan for 2020 to 2022. Using experience-based estimates, the amounts in the forecast and in the medium-term plan are based on growth projections for net sales, operating income and other parameters, taking into consideration the estimated market trends in the various regions. Cash flows beyond the forecast period are extrapolated using an assumed growth rate of 1.5%, which is within the expected rate of market growth. The assumptions applied in determining value in use correspond to the expected long-term average growth rate of the X-Ray Systems division's operating business and of the generator business of Industrial X-Ray Modules. Input variables with a critical impact on the outcome of the impairment test are the assumed rates of sales growth and the projected trend in operating income.

Carrying amount of the assets tested

	X-Ray Systems (IXS) CGU		Industrial X-Ray Technology (IXT) CGU		Total	
In thousands of CHF	**2019**	2018	**2019**	2018	**2019**	2018
Goodwill	18,573	19,287	6,873	6,873	25,446	26,160
Trademarks (Yxlon)	2,169	2,253	0	0	2,169	2,253
Total carrying amount	**20,742**	**21,540**	**6,873**	**6,873**	**27,615**	**28,412**

Assumptions applied in the valuation model

	X-Ray Systems (IXS) CGU		Industrial X-Ray Technology (IXT) CGU	
	2019	2018	**2019**	2018
Discount rate (WACC) before tax	12.5%	12.2%	11.4%	12.8%
Growth rate of terminal value	1.5%	1.8%	1.5%	1.5%

Sensitivities to the assumptions applied in the valuation model

The measurement of the values in use of the X-Ray Systems CGU (IXS) and the Industrial X-Ray Technology CGU (IXT) is sensitive to the following assumptions in the planning period (2020 to 2022):

- Growth assumptions: Sales revenue is projected by product group and region. Based on the recovering situation of 2019 as the starting point, the average annual rate of sales growth is assumed to be 7% for IXS (prior year: 6%) and 11% for IXT (prior year: 9%).
- Gross margins: It is expected that with rising sales, gross margins in the medium term will average approximately 38% for IXS (prior year: 38%) and 46% for IXT (prior year: 50%). Target achievement also depends in part on the trend in the purchasing prices of materials.
- Foreign exchange rates: The movement in exchange rates between the Swiss franc and the euro and US dollar has an effect on company value. The forecasts are based on September 2019 exchange rates.

- Discount rate (WACC): The capital costs were determined based on borrowing costs (before tax) and on the long-term risk-free rate, a small-cap premium, and a market risk premium weighted by a Comet-specific beta factor.

No impairment was recognized in the year under review and Comet believes that, with a realistic change in the material assumptions, the recoverable amount would not fall below the carrying amount.

In the prior year, at the end of the first half of 2018, there were indications of asset impairment for the ebeam systems business (EBS, part of the EBT division) due to lower profitability projections, and an impairment test was therefore performed for it at June 30, 2018. The calculations were based on the Board-approved rolling forecast current at the time of the impairment test, and on the Board-approved rolling medium-term plan for 2019 to 2021. The impairment test determined that an expense of CHF 6.1 million needed to be recognized for the impairment of certain property, plant and equipment and intangible assets in the EBS business. The expense was disclosed in the income statement under cost of sales (CHF 2.2 million), development expenses (CHF 0.2 million) and marketing and selling expenses (CHF 3.7 million).

Comet divested the ebeam systems business effective November 12, 2018, which gave rise to additional losses. Details are provided in note 8.

21 Debt

On April 20, 2016 a five-year, CHF 60 million bond was issued. The bond has a coupon rate of 1.875% and is listed on the SIX Swiss Exchange (ticker symbol COT16; security number 32061943). Its effective interest rate is 2%.

At the end of the fiscal year under review the Comet Group had undrawn credit facilities of CHF 46.6 million (prior year: CHF 51.4 million). Of this total, CHF 4.3 million (prior year: CHF 5.8 million) was reserved for hedging transactions.

21.1 Non-current debt

The non-current debt in the fiscal year consisted only of the five-year bond maturing in 2021 (in the prior year, it also included fixed-rate, fixed-maturity bank loans denominated in CHF). In the year under review, all interest and principal payments were made as contractually agreed.

In thousands of CHF	**2019**	2018
Repayment due within five years	60,000	63,000
Repayment due in more than five years	–	–
Subtotal	**60,000**	**63,000**
Future amortization of costs	(107)	(188)
Total non-current debt	**59,893**	**62,812**

Loans with original maturities of more than twelve months coming due in the subsequent year were reclassified to current debt.

21.2 Movement in debt

Fiscal year 2019

In thousands of CHF	Jan. 1, 2019	Cash flows	Reclassif from non-current to current	Unwinding of discount, and remeasurement	Foreign currency translation differences	Dec. 31, 2019
Current debt	5,000	4,000	3,000	–	–	12,000
Non-current debt	62,812	–	(3,000)	81	0	59,893
Total debt	**67,812**	**4,000**	**–**	**81**	**0**	**71,893**

Fiscal year 2018 [1]

In thousands of CHF	Jan. 1, 2018	Cash flows	Reclassif from non-current to current	Unwinding of discount, and remeasurement	Foreign currency translation differences	Dec. 31, 2018
Current debt	2,000	–	3,000	–	–	5,000
Non-current debt	65,733	–	(3,000)	79	0	62,812
Total debt	**67,733**	**–**	**–**	**79**	**0**	**67,812**

[1] Restated for IFRS 16 (see note 2.2).

22 Trade and other payables

In thousands of CHF	**2019**	2018
Trade payables	26,306	23,971
Sundry payables	3,889	4,406
Sales commissions	4,204	4,614
Total financial liabilities	**34,398**	**32,991**
Sales tax and value-added tax	2,211	1,928
Total other payables	**2,211**	**1,928**
Total trade and other payables	**36,609**	**34,919**

23 Accrued expenses

In thousands of CHF	**2019**	2018 [1]
Accrued staff costs	5,733	6,602
Other accrued expenses	12,737	13,805
Total accrued expenses	**18,470**	**20,407**

[1] Restated for IFRS 16 (see note 2.2).

Accrued staff costs consist mainly of the amount accrued for performance-based compensation, and employees' vacation and overtime credits. The item "other accrued expenses" relates to outstanding invoices and payables of the fiscal year, such as for rent, energy and consulting.

24 Provisions

Fiscal year 2019

In thousands of CHF	Warranties	Other provisions	Total provisions
January 1, 2019	**7,646**	**4,481**	**12,127**
Added	6,752	790	7,542
Used	(5,207)	(591)	(5,798)
Released	(1,952)	(2,356)	(4,308)
Foreign currency translation differences	(126)	(80)	(206)
December 31, 2019	**7,113**	**2,244**	**9,357**
Of which:			
January 1, 2019			
Current provisions	7,646	4,434	12,080
Non-current provisions	–	47	47
December 31, 2019			
Current provisions	7,113	2,233	9,346
Non-current provisions	–	11	11

The provision for warranties covers the risk of expenses for defects that have not occurred to date, but could potentially occur until the end of the warranty periods. Warranty provisions are measured based on historical experience.

In 2017, in an internal review of compliance with export regulations, a procedural error was found in the USA in connection with a transfer license. Comet informed the appropriate authorities of the error and initiated the necessary corrective measures. In the year under review, Comet was issued a warning by the authorities in this matter and this allowed the case to be closed. The unneeded provision of CHF 1.1 million was reversed through the income statement in the fiscal year.

As well, in the fiscal year, unneeded provisions of CHF 1.0 million related to the reorganization of the IXS division were reversed.

25 Employee benefits

25.1 Defined benefit plans

The Comet Group maintains defined benefit pension plans in Switzerland and Germany. These plans differ according to their particular purpose (retirement, disability, and/or survivor benefits) and are based on the legal requirements in the respective countries.

Switzerland

The defined benefit plans are managed within a multi-employer pension fund. This is a separate legal entity falling under the Swiss Federal Act on Occupational Retirement, Survivors' and Disability Pensions (the BVG). The pension fund maintains a main ("base") plan for employees that provides the legally required benefits, and a supplemental plan that provides benefits in respect of pay components above the statutory range. The base plan was switched to a fully insured pension model effective January 1, 2018, as was the supplemental plan with effect from January 1, 2019. From 2019, all investment risk is thus carried by the pension fund, or ultimately by the insurer. Both plans are administered by the multi-employer pension fund, which is in the form of a foundation organized by an insurance company. The pension fund is managed by the foundation's board of directors, which is composed of equal numbers of employee and employer representatives and is required to act in the interests of the plan participants.

Plan participants are insured against the financial consequences of old age, disability and death. The benefits are specified in a set of regulations. Minimum levels of benefits are prescribed by law. Contribution levels are set as a percentage of the insured portion of employees' pay. The retirement benefit is calculated as the retirement pension asset existing at the time of retirement, multiplied by the conversion rate specified in the regulations. Plan participants can opt to receive their principal as a lump sum instead of drawing a pension. The supplemental plan as a rule pays out a lump sum, but a pension can be drawn on request. The amounts of the disability and survivor pensions are defined as a percentage of insured pay.

Germany

In Germany there is a closed plan with pension commitments which no longer has active participants. The obligations in respect of current pension payments and deferred pensions are recognized in the balance sheet.

Principal actuarial assumptions

	Switzerland		Germany	
	2019	2018	**2019**	2018
Discount rate at January 1	0.7%	0.6%	1.6%	1.5%
Discount rate at December 31	0.2%	0.7%	0.6%	1.6%
Expected rate of salary increases	1.0%	1.0%	–	–
Life tables used as basis for life expectancies	BVG 2015 GT	BVG 2015 GT	Heubeck 2018 GT	Heubeck 2018 GT

Movement in present value of defined benefit obligation, in plan assets and in net carrying amount for defined benefit plans

Fiscal year 2019

In thousands of CHF	Present value of defined benefit obligation	Fair value of plan assets	**Net carrying amount recognized in balance sheet**
January 1	**(84,452)**	**74,513**	**(9,939)**
Current service cost	(3,703)	–	(3,703)
Past service cost	648	–	648
Administration cost, excl. cost of managing plan assets	(41)	–	(41)
Current service cost	**(3,096)**	**–**	**(3,096)**
Interest (expense)/income	(609)	530	(79)
Defined benefit cost recognized in the income statement	**(3,705)**	**530**	**(3,175)**
Return on plan assets, excluding interest income	–	(39)	(39)
Actuarial loss arising from changes in financial assumptions	(3,668)	–	(3,668)
Actuarial gain arising from experience adjustments	283	–	283
Defined benefit cost recognized in other comprehensive income	**(3,385)**	**(39)**	**(3,425)**
Benefits paid-in/deposited	5,474	(5,454)	20
Employee contributions	(2,051)	2,051	–
Employer contributions	–	2,712	2,712
Foreign currency translation differences	77	(45)	33
December 31	**(88,042)**	**74,268**	**(13,774)**
Reported as an asset			–
Reported as a liability			(13,774)

For the defined benefit plans in Switzerland, the board of directors of the pension fund decided in 2019 and in 2018 to reduce the pension conversion rates with effect from the year 2022 and 2021, respectively. These plan amendments led to a negative past service cost (i.e., they resulted in income) and a corresponding reduction in the defined benefit obligation. The positive pre-tax effect of CHF 0.6 million was distributed across the 2019 operating income of the divisions as follows: PCT: CHF 0.2 million; IXM: CHF 0.3 million; EBT: CHF 0.1 million (2018: PCT: CHF 0.2 million; IXM: CHF 0.3 million; EBT: CHF 0.1 million.)

The average duration of the defined benefit obligation was 12.4 years.

Fiscal year 2018

In thousands of CHF	Present value of defined benefit obligation	Fair value of plan assets	**Net carrying amount recognized in balance sheet**
January 1	**(82,536)**	**75,428**	**(7,108)**
Current service cost	(3,636)	–	(3,636)
Past service cost	613	–	613
Administration cost, excl. cost of managing plan assets	(41)	–	(41)
Current service cost	**(3,064)**	**–**	**(3,064)**
Interest (expense)/income	(517)	461	(57)
Defined benefit cost recognized in the income statement	**(3,581)**	**461**	**(3,120)**
Return on plan assets, excluding interest income	–	(290)	(290)
Actuarial gain arising from changes in financial assumptions	731	–	731
Actuarial gain arising from changes in demographic assumptions	1,053	–	1,053
Actuarial loss arising from experience adjustments	(2,407)	–	(2,407)
Defined benefit cost recognized in other comprehensive income	**(623)**	**(290)**	**(913)**
Benefits paid-in/deposited	4,387	(4,364)	23
Employee contributions	(2,173)	2,173	–
Employer contributions	–	1,152	1,152
Foreign currency translation differences	74	(47)	28
December 31	**(84,452)**	**74,513**	**(9,939)**
Reported as an asset			–
Reported as a liability			(9,939)

Key figures by country

	Switzerland		Germany	
In thousands of CHF	**2019**	2018	**2019**	2018
Present value of defined benefit obligation	(85,969)	(82,505)	(2,072)	(1,947)
Fair value of plan assets	73,116	73,297	1,152	1,216
Net carrying amount recognized in the balance sheet	**(12,854)**	**(9,207)**	**(920)**	**(732)**
Defined benefit cost recognized in the income statement	(3,164)	(3,109)	(11)	(11)
Defined benefit cost recognized in other comprehensive income	(3,195)	(913)	(230)	–

The employer contributions to the plans in Switzerland for fiscal year 2020 are expected to amount to CHF 2.8 million.

Major categories of plan assets

In thousands of CHF	2019	2018
Cash and cash equivalents	–	13,629
Total plan assets at fair value (quoted market price)	**–**	**13,629**
Assets from insurance contract	74,268	60,884
Total assets without a quoted market price	**74,268**	**60,884**
Total plan assets	**74,268**	**74,513**

As the base plan and (since January 1, 2019) the supplemental plan are managed under a fully insured model, all investment risk is carried by the pension fund, or ultimately by the insurer. The plan assets are therefore reported as the item "assets from insurance contract". At December 31, 2018, the plan assets were held in cash and cash equivalents, in preparation for the change-over of the supplemental plan to the fully insured model.

Companies of the Comet Group do not make loans to the pension plans and do not utilize any real estate held by the plans.

Sensitivities

The following table presents an analysis of how the reported present value of the defined benefit obligation would change in response to hypothetical changes in the actuarial assumptions.

Sensitivity of present value of defined benefit obligation to different scenarios

	Switzerland		Germany	
In thousands of CHF	2019	2018	2019	2018
Discount rate: 0.25% decrease	88,712	84,964	2,143	2,011
Discount rate: 0.25% increase	83,412	80,206	2,006	1,887
Expected rate of salary growth: 0.25% decrease	85,839	82,374	2,072	1,947
Expected rate of salary growth: 0.25% increase	86,086	82,637	2,072	1,947
Life expectancy: 1-year increase	86,803	83,177	2,171	2,040
Life expectancy: 1-year decrease	85,138	81,832	1,974	1,855

25.2 Defined contribution plans

The contributions paid to defined contribution plans in the fiscal year amounted to CHF 6.1 million (prior year: CHF 6.3 million).

25.3 Length-of-service awards

Comet grants length-of-service awards to its employees after a certain number of years of service, in the form of lump-sum payments that increase in amount with the number of years of employment. The provision for this item changed as follows in the year under review:

In thousands of CHF	2019	2018
Provision at January 1	1,368	1,330
Current service cost	192	202
Interest cost	16	12
Benefits paid	(135)	(137)
Actuarial losses/(gains)	64	(13)
Foreign currency translation differences	(29)	(26)
Provision at December 31	**1,476**	**1,368**

26 Equity capital structure and shareholders

26.1 Capital stock

The capital stock at January 1, 2019 was CHF 7,759,882, divided into 7,759,882 registered shares with a par value of CHF 1.00 per share.

In fiscal year 2019 the capital stock was increased by 4,326 shares from the portion of authorized capital designated for equity-based compensation. Including the increase of 4,326 shares from this portion of authorized capital, Comet Holding AG at December 31, 2019 thus had a new total of CHF 7,764,208 of capital stock, divided into 7,764,208 registered shares with a par value of CHF 1.00 per share. The capital stock is fully paid in.

At its meeting on August 9, 2019 the Board of Directors established that the capital increase from authorized capital for equity-based compensation was properly performed. The information in the commercial register, and the Bylaws of Comet Holding AG, were updated to reflect the change in capital stock.

	2019		2018	
	Number of shares	**Par value in CHF**	Number of shares	Par value in CHF
January 1	7,759,882	7,759,882	7,753,658	7,753,658
Increase in capital from the portion of authorized capital designated for equity compensation	4,326	4,326	6,224	6,224
December 31	7,764,208	7,764,208	7,759,882	7,759,882

At the balance sheet date, Comet Holding AG held no treasury stock (prior year: nil).

26.2 Authorized capital for equity compensation

Under section 3b of its Bylaws, a portion of the Company's unissued authorized capital is designated for use only as equity-based compensation (in German this portion is known as "bedingtes Aktienkapital"). In such a capital increase, stock is issued to Executive Committee members and/or Board members of Comet Holding AG. With respect to this portion of authorized capital, the other shareholders' pre-emptive rights are excluded. The issuance of stock or stock subscription rights is based on a compensation plan (in the form of a written regulation) adopted by the Board of Directors.

In May 2019, in accordance with the compensation plan, the members of the Board of Directors were granted a total of 1,679 shares of stock in payment of CHF 153,948 of fixed retainers due for fiscal year 2018. In addition, as part of their compensation for 2019, the members of the Board of Directors were granted a total of 835 shares in payment of CHF 76,561 of fixed retainers due for the period from January 1, 2019 to the 2019 Annual Shareholder Meeting. The fully paid shares were applied to the retainers due at a price of CHF 91.69 per share.

Members of the Executive Committee were granted a total of 1,812 shares in payment of CHF 166,142 of profit-sharing compensation due for fiscal year 2019. The fully paid shares were applied to the compensation due at a price of CHF 91.69 per share.

As a result of these grants of a total of 4,326 shares made in 2019, the Company's unissued authorized capital for equity-based compensation showed the following movement:

		2019		2018
	Number of shares	**Par value in CHF**	Number of shares	Par value in CHF
January 1	203,238	203,238	209,462	209,462
Increase in capital (awards to Board of Directors for prior term's retainer and to Executive Committee for prior year's profit-sharing compensation)	(4,326)	(4,326)	(6,224)	(6,224)
December 31	198,912	198,912	203,238	203,238

At the end of the year, the remaining unissued authorized capital for equity-based compensation was CHF 198,912, or 2.6% of the existing capital stock.

26.3 Authorized capital for other capital increases

At December 31, 2019, in addition to shares outstanding and to unissued authorized capital for equity compensation, the Company had unissued authorized capital for purposes set out in section 3a of the Bylaws (in German: "genehmigtes Aktienkapital"). The Board of Directors is authorized, at any time until April 26, 2020, to increase the capital stock by a maximum of CHF 1.4 million by issuing up to 1,400,000 fully payable registered shares with a par value of CHF 1.00 per share, which represents 18% of the existing capital stock. Increases by way of firm commitment underwriting and increases by part of the total authorized amount are permitted. The amount of the respective issue, the date when entitlement to dividend commences, the terms of any exercise of pre-emptive rights and the nature of the contributions are determined by the Board of Directors.

The Board of Directors is authorized to exclude shareholders' subscription rights and assign these rights to third parties if the shares in question are to be used for the acquisition of companies via equity swaps or to finance the cash purchase of companies or parts of companies, or to finance new investment projects of Comet Holding AG, or for providing an ownership interest to an industrial partner (either in order to cement a strategic alliance or in the event of a takeover offer for the Company). Stock for which pre-emptive rights are granted but not exercised must be sold by the Company at market prices.

26.4 Significant shareholders

At December 31, 2019 the Company, according to disclosure notifications, had the following significant shareholders (defined for this purpose as shareholders with voting rights in excess of 3% of the Comet capital stock recorded in the Swiss commercial register of companies):

Beneficial owner	Direct shareholder	Share of voting rights as disclosed by shareholders
Haldor Foundation	Tringle Investment Pte Ltd	10.13%
N/A	VERAISON SICAV – Engagement Fund	9.99%
Pictet Asset Management SA (Direction de Fonds)		5.07%
UBS Fund Management (Switzerland AG)		3.63%

The Company has not been notified of nor is aware of any other shareholders that held more than 3% of its shares. To the best of the Company's knowledge there were no voting pool agreements.

27 Off-balance sheet transactions

27.1 Contingent liabilities

As a global company, Comet is exposed to numerous legal risks. These can include, especially, risks relating to product liability, patent law, export regulations, tax law and competition law. The outcomes of currently pending and future legal proceedings cannot be predicted with certainty. Expenses may therefore be incurred that are not, or not fully, covered by insurance benefits and which may thus have effects on the business trajectory and on future financial results.

Provisions are established inasmuch as the financial consequences of a past event can be estimated reliably and the estimate can be confirmed by independent expert opinion. Contingent liabilities that are likely to result in an obligation are included under provisions.

In 2006 Comet sold a property in Switzerland that is listed in the register of contaminated sites. Until September 2019 the site was monitored and inspected using test drilling. The monitoring activities were concluded with the final report of November 2019. No exceedance of concentrations and no deterioration of groundwater quality were detected and the site is thus no longer classified as requiring monitoring. No site reclamation is therefore necessary. Comet would be liable only if, in the event of new construction, contaminated excavated material were to require disposal. In Comet's estimation, based on current knowledge, no significant costs are likely to result.

27.2 Other off-balance sheet obligations

As part of its operating activities, Comet had purchase obligations at the balance sheet date totaling CHF 16.6 million, of which CHF 10.7 million were current in nature and CHF 5.9 million mature in the five-year period that begins in 2021. The payment obligations arise from off-balance sheet offtake agreements with suppliers, most of which are set out in master agreements.

There were no investment or capital commitments at December 31, 2019.

28 Financial instruments

28.1 Classes of financial instruments

Fiscal year 2019

In thousands of CHF	Financial assets		Financial liabilities		
	FVTPL [1]	At amortized cost	FVTPL [1]	At amortized cost	Fair value
Cash and cash equivalents		60,255			*
Trade receivables, net		54,323			*
Derivatives	271		41		230
Financial assets		367			*
Current debt				12,000	12,042
Trade and other payables				34,398	*
Non-current debt (fixed rate)				59,893	60,870
Total	**271**	**114,945**	**41**	**106,291**	
Interest income/(expense)	–	108	–	(1,999)	
Gain/(loss) on derivatives	636	–	(1,104)	–	
Change in impairment and losses on trade receivables		102			
Total net gain/(loss) recognized in the income statement	**636**	**211**	**(1,104)**	**(1,999)**	

[1] At fair value through profit or loss.
* The carrying amount approximates fair value.

IFRS require all financial instruments which are held at fair value, and all reported fair values, to be categorized into three classes (or "levels") according to whether the fair values are based on quoted prices in active markets (Level 1), on models using other observable market data (Level 2), or on models using unobservable inputs (Level 3).

The only financial instruments that the Comet Group recognized at fair value are derivatives held for currency hedging. The measurement of the derivatives falls into Level 2 of the fair value measurement hierarchy under IFRS 13.

Fiscal year 2018 [1]

In thousands of CHF	Financial assets		Financial liabilities		
	FVTPL [2]	At amortized cost	FVTPL [2]	At amortized cost	Fair value
Cash and cash equivalents		43,007			*
Trade receivables, net		53,382			*
Derivatives	26		379		(353)
Financial assets		209			*
Current debt				5,000	5,009
Trade and other payables				32,991	*
Non-current debt (fixed rate)				62,812	63,133
Total	**26**	**96,599**	**379**	**100,803**	
Interest income/(expense)	–	30	–	(1,585)	
Gain/(loss) on derivatives	647	–	(1,702)	–	
Change in impairment and losses on trade receivables		467			
Total net gain/(loss) recognized in the income statement	**647**	**497**	**(1,702)**	**(1,585)**	

[1] Restated for IFRS 16 (see note 2.2).
[2] At fair value through profit or loss.
* The carrying amount approximates fair value..

28.2 Fair values of financial instruments

The only differences between fair values and carrying amounts occurred in fixed-rate debt. For the CHF 60 million bond, the quoted market price is used as the fair value (Level 1). The fair values of the other items of fixed-rate debt are determined by discounting the future cash flows at the interest rate prevailing at the year-end. The interest rate spreads used are those of the most recently obtained or refinanced loans.

29 Management of financial risks

Comet operates its own subsidiaries in a number of countries and also exports products to still other countries. As an international company, the Group is subject to various financial risks which are inseparable from its business activities. Comet seeks to avoid unreasonable financial risks and to mitigate risks through appropriate hedges. The key elements of risk management form an integral part of Group strategy. Clearly defined management information and control systems are used to measure, monitor and control risks. Detailed risk reports are produced on a regular basis.

29.1 Capital management

The primary goal of capital management is to manage equity and debt capital in such a way as to ensure the Group's high creditworthiness and an equity ratio appropriate to the Group's risk profile, thus supporting its business activities. Comet manages the Group's capital structure to meet liquidity requirements and pursue growth and profitability targets, taking into account the economic environment and the financial results achieved and planned. On this basis, the Board of Directors proposes dividend payments or capital repayments to the shareholders or recommends increases in capital stock.

Comet monitors and evaluates its capital structure by reference to net debt and the equity ratio, with the aim of ensuring that the capital structure covers the business risks and assures the Group's lasting financial flexibility.

In thousands of CHF	**2019**	2018 [1]
Current debt	16,635	9,469
+ Non-current debt	68,647	72,506
./. Cash and cash equivalents	60,255	43,007
Net debt	**25,027**	**38,967**
EBITDA	39,974	42,966
Debt ratio (net debt in relation to EBITDA)	**0.6**	**0.9**
Shareholders' equity	195,948	198,292
Equity ratio (equity in % of total assets)	**50.0%**	**52.1%**

[1] Debt including lease liabilities. Restated for IFRS 16 (see note 2.2).

29.2 Risks in connection with financial instruments

Comet is exposed to many risks associated with financial instruments. These can be divided into market risks, credit risks and liquidity risks.

29.2.1 Market risk

Market risk is the risk of changes in the price of financial assets, in currency exchange rates, interest rates and the price of exchange-traded commodities. As a manufacturer, Comet is inherently exposed to commodity price risks (for example, for inputs such as energy, copper and ceramics), but these are not considered financial risks for the purposes of IFRS 7, as Comet procures commodities only for use in manufacturing, not for trading of commodity contracts. Consequently, these risks are not explicitly determined and are not separately disclosed in the consolidated financial statements.

Exchange rate risk

With its worldwide activities and strong focus on exports, Comet has particularly high exposure to exchange rate risks, as revenues and costs often do not arise in the same currency. The currency risk from operations is reduced by purchasing and selling in local currency where possible, an approach known as natural hedging. In addition, to protect against fluctuation in exchange rates, significant foreign currency orders in the X-Ray Systems division are already hedged on receipt of the order, using forward exchange contracts. The Industrial X-Ray Modules, ebeam Technologies and Plasma Control Technologies divisions non-selectively hedge a large portion of the expected cash flows in foreign currency up to a one-year time horizon, by means of forward exchange contracts. As Comet hedges only cash flows, there are no hedges of net investments in foreign operations. The table below shows the sensitivity of income before tax and of shareholders' equity to a possible movement in those exchange rates that are material for Comet, with all other variables held constant. The most important monetary foreign currency positions in the balance sheets of the Group companies are in euros and US dollars. The percentages of movement in exchange rates are based on an estimated potential range of fluctuation.

Fiscal year 2019

	Increase in exchange rate in %	Effect on income before tax in thousands of CHF	Effect on equity in thousands of CHF
EUR/CHF	+10	+3,135	+325
USD/CHF	+10	+2,571	+726

Fiscal year 2018

	Increase in exchange rate in %	Effect on income before tax in thousands of CHF [1]	Effect on equity in thousands of CHF [1]
EUR/CHF	+10	+1,272	+1,059
USD/CHF	+10	+857	+1,379

[1] Restated for IFRS 16 (see note 2.2).

A reduction in exchange rates by the same percentage amount produces an opposite effect of equal size. The sensitivity analysis covers only monetary balance sheet items that, relative to the functional currency of the respective Group company, are settled in foreign currencies.

Interest rate risk
Comet's debt financing exposes it to the risk of interest rate fluctuation in the refinancing of current debt. All loans are measured at amortized cost; consequently, in the year under review and the prior year, changes in market interest rates did not have an effect on the carrying amounts of the loans, nor therefore on income before tax or on equity. The fair values of non-current debt, based on the current interest rate situation, are presented on an indicative basis in note 28.1.

29.2.2 Credit risk

Credit risk is the risk that a counterparty will not be willing or able to meet its obligations. To mitigate this risk, Comet deals with multiple well-established banks and spreads the credit risk as widely as necessary and reasonable.

Banking transactions: Comet spreads its cash holdings among different banks in order to minimize the potential for losses from credit risk. Banking transactions are conducted only with reputable banks of national and international standing. The types of transactions in which subsidiaries are permitted to engage is determined centrally. The following table shows the amounts held at the most important counterparties at the balance sheet date:

		2019		2018
In thousands of CHF	**Rating***	**Balance**	Rating*	Balance
Bank A	A+	25,973	A+	23,434
Bank B	AAA	2,499	AAA	42
Bank C	A	6,659	A	2,458
Bank D	n/a	4,519	n/a	16
Bank E	A-	10,284	A-	6,157
Bank F	A+	5,045	A+	5,093
Other counterparties		5,276		5,807
Total bank deposits		**60,255**		**43,007**

* Long-term credit rating from Standard & Poor's.

Trade receivables: Comet operates worldwide, selling its products in various countries and to a large number of customers. Payment terms vary according to the market and customer. The credit limits for and payments received from each customer are monitored by the individual Group companies; the resulting information is made available to Group management in the form of monthly special reports. Appropriate allowance for expected risk of default is made through the recognition of impairment on doubtful accounts. Receivables and contract assets are written off only when payment is highly unlikely to be forthcoming. Detailed information on impairment of receivables and contract assets and its movement in the year can be found in note 13.

The amount of exposure to credit risk equals the carrying amount of the respective financial instruments in the balance sheet.

29.2.3 Liquidity risk

Comet defines liquidity risk as the risk that, at any time, the Group will not be able to meet its financial obligations fully as they become due. The foremost goal of financial management is the permanent assurance of the Group's solvency in order to prevent such a contingency. To this end, using liquidity planning, Comet always maintains sufficient liquid assets and credit lines to avoid shortages of liquidity. Ensuring solvency also includes active working capital management. The Group's credit quality is safeguarded by monitoring the leverage ratio of net debt to EBITDA. Liquidity planning and liquidity procurement are to a large extent performed centrally for the whole Group. A rolling three-month cash flow forecast is prepared monthly based on a decentralized, bottom-up approach. The long-term financing of subsidiaries is normally arranged through loans of Comet Holding AG. Following is an overview of all contractual payment obligations as at the balance sheet date, on an undiscounted basis:

Fiscal year 2019

In thousands of CHF	Carrying amount	Payments due by period			
		Total	2020	2021–2024	After 2024
Debt	71,893	74,388	13,263	61,125	–
Lease liabilities	13,389	14,493	5,093	7,449	1,950
Financial liabilities	34,398	34,398	34,398	–	–
Derivatives with negative fair values	41	41	41	–	–
Total	**119,722**	**123,320**	**52,796**	**68,574**	**1,950**

Fiscal year 2018 [1]

In thousands of CHF	Carrying amount	Payments due by period			
		Total	2019	2020–2023	After 2023
Debt	67,812	71,627	6,275	65,352	–
Lease liabilities	14,162	16,296	5,452	10,844	–
Financial liabilities	32,991	32,991	32,991	–	–
Derivatives with negative fair values	379	379	379	–	–
Total	**115,345**	**121,293**	**45,098**	**76,196**	**–**

[1] Restated for IFRS 16 (see note 2.2).

The item "debt" represents the principal amounts of current and non-current debt as well as the contractual interest payments. The key assumptions of the above summary of payment obligations are:

- For variable-rate debt, the interest rates at the balance sheet date are used.
- All amounts denominated in foreign currencies are translated at the rate prevailing at the balance sheet date.
- The maturity date assumed is the earliest possible.

The contract amounts of open derivative positions are presented in note 14.3.

30 Share-based payments

Main elements of the compensation system
The remuneration of the members of the Executive Committee consists of fixed compensation and a performance-based component. The total compensation takes into account the recipient's position and level of responsibility.

The profit-sharing remuneration of the members of the Executive Committee consists of annually paid compensation under a short-term incentive plan (STIP) and a long-term incentive plan (LTIP). Two-thirds of the compensation under the STIP is paid in cash and one-third of it is paid in stock. The compensation under the LTIP is paid only in stock. The total variable compensation (STIP and LTIP combined) is capped by an upper limit. The profit-sharing compensation of employees who are not members of the Executive Committee is paid only in cash.

Share-based compensation of the members of the Board of Directors
To ensure the independence of the Board of Directors in its supervision of the Executive Committee, the Board members receive only a fixed retainer, of which two-thirds is paid in cash and one-third is paid in stock. The stock awarded is subject to a holding period of three years during which it cannot be sold.

Share-based compensation of the members of the Executive Committee
In addition to the fixed compensation, the members of the Executive Committee can earn a performance-related, STIP pay component, of which one-third is paid in stock. The balance of the STIP amount is paid in cash. Additionally, further stock compensation can be granted, under the LTIP. The stock transferred under the STIP is subject to a holding period of three years from the date of the award. Stock transferred under the LTIP does not have a holding period.

Calculation of grant price for share awards
The grant price, at which the stock is awarded and transferred to recipients, is the average closing market price of the stock in the period between (and excluding) the date of the annual results press conference and the date of the Annual Shareholder Meeting.

Expenses recorded
The expense recognized for share-based payments in the year under review was CHF 0.3 million (prior year: CHF 0.3 million). The amount included CHF 0.1 million for stock already awarded to the Board of Directors in 2019.

31 Compensation of the Board of Directors and Executive Committee

The expense for compensation of the members of the Executive Committee and Board of Directors can be analyzed as follows:

in thousands of CHF	2019	2018
Cash compensation, including short-term employee benefits	3,724	4,064
Contributions to post-employment benefit arrangements	387	416
Expense for share-based payments	309	349
Total compensation	**4,420**	**4,830**

Related party transactions
In the fiscal year there were no transactions with related parties (prior year: purchase of consulting services in the amount of CHF 8 thousand).

32 Events after the balance sheet date

On February 3, 2020, the subsidiary Comet Technologies Malaysia Sdn. Bhd. was founded in Penang, Malaysia. The company is wholly owned by Comet Holding AG. There have been no other events after the balance sheet date with a material effect on the amounts in the consolidated financial statements.

33 Proposed distribution to shareholders

The Board of Directors will propose at the Shareholder Meeting to pay shareholders a distribution of CHF 1.00 per share from retained earnings. In the prior year, Comet paid a distribution of CHF 1.00 per share from distributable paid-in capital and of CHF 0.20 per share from retained earnings. The total amount of the proposed distribution is CHF 7.8 million (prior year: CHF 9.3 million).

34 Release of the consolidated financial statements for publication

The Board of Directors released these financial statements on March 12, 2020 for publication. The Board will present the financial statements to the Annual Shareholder Meeting on April 23, 2020 for approval.

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To the General Meeting of
Comet Holding Ltd., Flamatt

Berne, 12 March 2020

Statutory auditor's report on the audit of the consolidated financial statements

Opinion
We have audited the consolidated financial statements of Comet Holding Ltd. and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2019 and the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of cash flows and consolidated statement of changes in equity for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements (pages 35 to 92) give a true and fair view of the consolidated financial position of the Group as at 31 December 2019, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) and comply with Swiss law.

Basis for opinion
We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the *Auditor's Responsibilities for the Audit of the Consolidated Financial Statements* section of our report.

We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, as well as the IESBA Code of Ethics for Professional Accountants, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters
Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. For each matter below, our description of how our audit addressed the matter is provided in that context.

We have fulfilled the responsibilities described in the *Auditor's responsibilities for the audit of the consolidated financial statements* section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatement of the consolidated financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for our audit opinion on the consolidated financial statements.

Impairment of intangible assets – goodwill and other

Risk	The group reviews the carrying amount of its cash generating units annually or more frequently if any impairment indicators are present with respect to goodwill or other intangible assets with indefinite useful life (trademarks). The impairment assessment involves performing a comparison of the estimated recoverable amount (fair value or higher net present value of each cash-generating unit) to its carrying amount. These annual impairment tests were significant to our audit because the balances for goodwill and trademarks of CHF 27.6 million as of 31 December 2019 are material to the financial statements. Furthermore, the underlying estimations to the impairment assessment are complex and any impairment of goodwill, trademarks or other intangible and tangible assets can have a material impact on the net income of the Comet Group. The valuation also depends on assumptions regarding the future development of the business and on judgments made by management. The impairment tests are complex and described in Note 20. The recoverable amount calculated via discounted cash flow analysis that is based on various assumptions such as future cash flows, terminal value growth rates, inflation rate and discount rate (WACC) of each cash-generating unit. These assumptions are determined by management and are therefore considered to be material judgments.
Our audit approach	We assessed the assumptions made in the impairment tests and involved our own valuation specialists to test the accuracy of the impairment calculation. We compared the terminal value growth rate as well as the inflation rate with externally available data and also checked the clerical accuracy of the model. In addition, we evaluated the estimates made by management in previous years in terms of the actual income generated, as well as assessed management's process for identifying possible impairments. Moreover, we evaluated the disclosures regarding impairment testing on goodwill and intangible assets with indefinite useful life with regard to the assumptions made. Our audit procedures did not lead to any reservations concerning the measurement of intangible assets – goodwill and other.

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Recognition of provisions resulting from claims

Risk	As outlined in notes 24 and 27.1 of the consolidated financial statements, Comet is exposed to potential claims and litigation in a variety of areas and counterparties. These areas include a former owner of a group company, tax authorities, other authorities and other third parties. Provisions, particularly for individual claims made against Comet, involve a high level of judgment as it is often uncertain if, when and to what extent such claims result in cash outflows. A provision has been raised based on management's best estimate of the likely outflow.
Our audit approach	We assessed Comet's process for identifying and monitoring new or pending claims. We inquired with both financial and legal staff, as well as outside attorneys that were engaged by Comet. Moreover, we read minutes of the Board of Directors and the Audit Committee and discussed open cases with management. Finally, we read legal letters that were provided by external attorneys or other parties that supported Comet in such cases. For recurring claims such as warranties, we assessed the provision based on the historical accuracy to assess the amount recorded in the current year. We also assessed the accounting for any change in the current year. Our audit procedures did not lead to any reservations concerning the completeness and measurement of the provisions resulting from claims.

Other information in the annual report

The Board of Directors is responsible for the other information in the annual report. The other information comprises all information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements, the remuneration report and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information in the annual report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the annual report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibility of the Board of Directors for the consolidated financial statements

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS and the provisions of Swiss law, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the website of EXPERTsuisse: http://www.expertsuisse.ch/en/audit-report-for-public-companies. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

In accordance with article 728a para. 1 item 3 CO and the Swiss Auditing Standard 890, we confirm that an internal control system exists, which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

Ernst & Young Ltd

ROLAND RUPRECHT
Licensed audit expert
(Auditor in charge)

PHILIPPE WENGER
Licensed audit expert