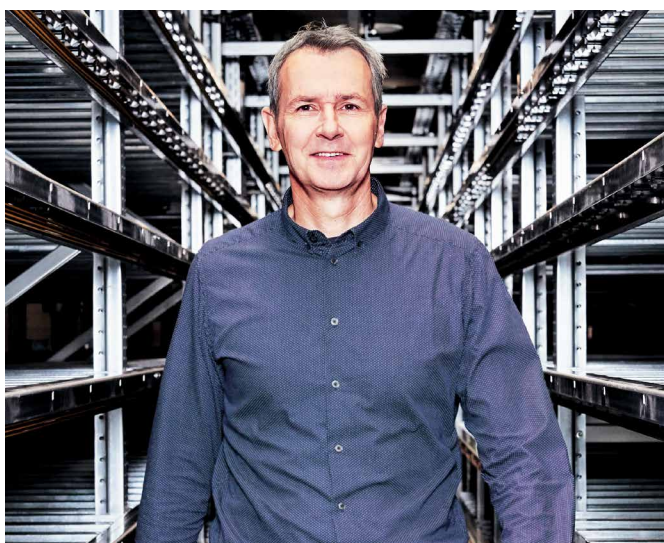


Comet Holding AG
Annual Report

2018

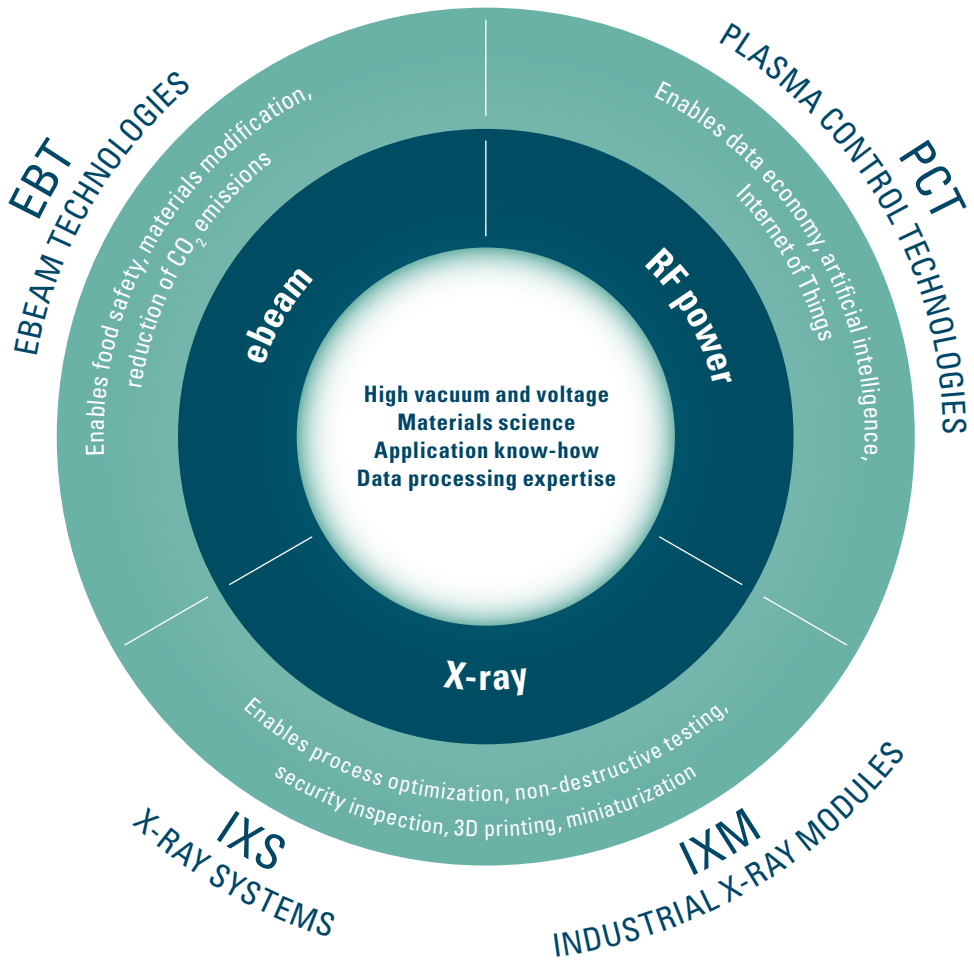


PLAYING ON
STRENGTHS.



The Comet Group – Strength through core competencies

● Core competencies ● Technologies ● Trends & Applications



At a glance

Comet Group key consolidated financial results

In thousands of CHF	2018	2017 ¹	2016	2015	2014
Net sales	436,356	443,370	332,437	282,321	287,895
Operating income	17,962	50,737	36,473	25,488	29,655
In % of net sales	4.1%	11.4%	11.0%	9.0%	10.3%
EBITA	28,617	55,129	39,630	27,994	32,417
In % of net sales	6.6%	12.4%	11.9%	9.9%	11.3%
EBITDA	37,793	63,203	47,699	35,718	39,765
In % of net sales	8.7%	14.3%	14.3%	12.7%	13.8%
Net income	12,279	35,336	27,336	17,106	26,277
In % of net sales	2.8%	8.0%	8.2%	6.1%	9.1%
Operating cash flow ²	22,493	38,353	33,179	35,672	30,560
In % of net sales	5.2%	8.7%	10.0%	12.6%	10.6%
Total assets	367,759	389,789	344,908	255,642	245,911
Shareholders' equity	200,038	201,548	176,345	162,205	159,768
In % of total assets	54.4%	51.7%	51.1%	63.4%	65.0%
Number of employees (year-end)					
Switzerland	509	535	438	366	374
International	837	900	792	729	612
Total	1,346	1,435	1,230	1,095	986

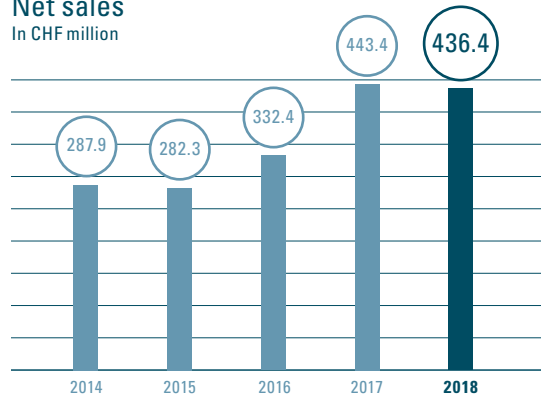
¹ All values for 2017 in this report have been restated for IFRS 15 (see note 2.1 of the consolidated financial statements).

² Net cash provided by operating activities, as per consolidated statement of cash flows.

Key financials of the Comet Group

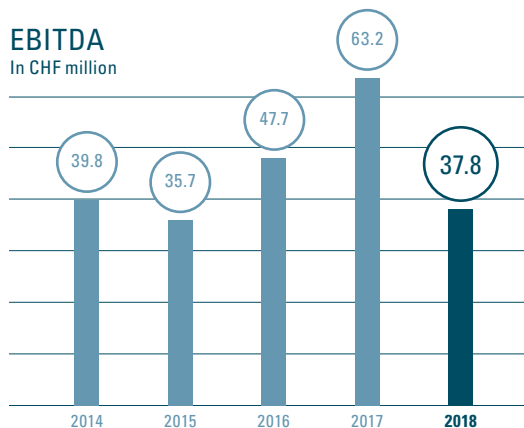
Net sales

In CHF million



EBITDA

In CHF million



Information for investors

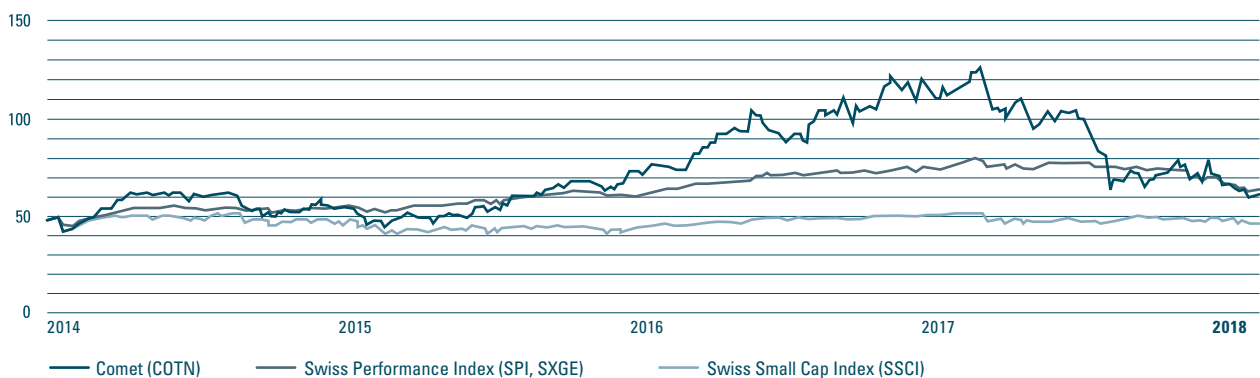
		2018	2017	2016	2015	2014
Capital stock	CHF	7,759,882	7,753,658	7,745,430	7,738,010	7,720,660
Number of shares (Dec. 31)		7,759,882	7,753,658	7,745,430	7,738,010	7,720,660
Weighted average number of shares outstanding		7,757,904	7,750,232	7,742,190	7,730,780	7,712,369
Stock price (adjusted)						
High for the year (Jan. 29, 2018)	CHF	168.90	165.40	100.70	85.65	67.00
Low for the year (Dec. 21, 2018)	CHF	74.45	95.40	56.20	54.80	42.85
Year-end (Dec. 31)	CHF	79.75	153.40	100.50	72.75	64.60
Earnings per share	CHF	1.58	4.56	3.53	2.21	3.41
Distribution per share ¹	CHF	1.20	1.50	1.20	1.10	1.10
P/E ratio (at year-end price)		50	34	28	33	19
Distribution yield (at year-end price)	%	1.5%	1.0%	1.2%	1.5%	1.7%
Equity per share ²	CHF	25.8	26.0	22.8	21.0	20.7
Market capitalization (Dec. 31)	CHF m	618.9	1,189.4	778.4	562.9	498.8

¹ 2018: Proposal by the Board of Directors for the year under review.

² Shareholders' equity divided by the weighted average number of shares outstanding.

Comet stock price

Performance in CHF



The Comet Group, a global technology leader based in Switzerland, has a strong technology platform focused on x-ray, radio frequency (RF) power and ebeam. With the core competencies of high vacuum, high voltage, materials science, and application and data processing expertise, we provide innovative solutions for faster, more efficient processes and safer products. In the wide range of markets that we address, the growth drivers are the advancing digitalization and the major trends enabling it: the rise of artificial intelligence, the Internet of Things and data analytics.

For seven decades, our ground-breaking high-end solutions have been helping bring greater safety and security, mobility, sustainability and efficiency to many areas of life: Plasma control modules from Comet are important in the efficient

fabrication of computer chips with ever higher storage capacity. Our high-performance x-ray systems for non-destructive testing and inspection make vehicles safer and airport security checks more reliable. And thanks to our innovative ebeam technology, manufacturers are saving on production costs for the sterilization of packaging while also improving their energy balance.

With our leading-edge products under the “Comet”, “Yxlon” and “ebeam” brands, we are always challenging the limits of the physically possible. Our highly skilled experts work closely with customers in Europe, the Americas and Asia and with well-known research institutions worldwide. The resulting tailored solutions generate lasting value-added for our customers and partners.



You can find the online version of the complete annual report and other interesting information about the Comet Group on our website at www.comet-group.com.

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Playing on strengths / p. 17

On fire for high tech and teamwork

For technology companies such as the Comet Group, lasting success demands continual strong investment: in creating new solutions that help customers succeed, in working closely with customers – and in highly qualified employees with a true passion for high tech and teamwork. Meet five of our people here.



She is a driving force in the growth of the x-ray modules business in the USA: Rebecca Rudolph, p. 18

Performance in 2018

The Comet Group successfully manages a challenging year for all divisions.

Comet demonstrates resilience

In a demanding environment, the Comet Group in 2018 was able to virtually hold the record-high sales result of the prior year. Net income was CHF 12.3 million, or CHF 24.3 million excluding one-time effects. The management swiftly took important measures for earnings improvement that will make themselves felt in 2019. The Comet Group closed 2018 with a strong balance sheet and low net debt.

With sales of CHF 436.4 million in 2018, the Comet Group, despite a strong contraction in the semiconductor market, nearly matched the record 2017 level of CHF 443.4 million.

At the first signs of a cycle shift in the middle of 2018, the Group took corrective measures in individual businesses to improve earnings performance, completing these initiatives by the end of 2018. It adjusted production capacity in line with the semiconductor market downturn, divested the ebeam systems manufacturer in Davenport, Iowa, USA, and executed a sweeping earnings improvement program in the x-ray systems business whose effects, as already announced, will unfold in 2019. At the same time, the Group continued to invest in future revenue drivers to ensure sustained business development. Excluding the one-off costs of CHF 10.5 million associated with the corrective measures, the

Comet Group realized EBITDA operating earnings of CHF 48.3 million and an EBITDA margin of 11.1%. Net income excluding one-time effects was CHF 24.3 million (2017: CHF 35.3 million).

The consolidated equity ratio increased from 51.7% to 54.4%. Despite high investment in the facility expansion in Flamatt, the management was able to keep the leverage ratio (net debt to EBITDA) at a low level of 0.7 (2017: 0.1). The Comet Group thus remains on a very sound financial footing.

Solid sales performance in a difficult environment

The weakness in the market for memory chips and the decisions by some manufacturers to postpone investments in equipping fabrication plants led to a slump in the market for semiconductor equipment from the second half of the year. Despite this sharp downswing, the Plasma Control Technologies (PCT) division – which is one of the world's leading vendors of RF power products and achieved record growth in the first half of 2018 – closed the year with sales of CHF 212.2 million, in line with the prior year (2017: CHF 213.0 million). In the X-Ray Systems (IXS) division, after a subdued first six months, successes began to be seen with new products, especially in the electronics market. Declines in individual markets resulted in an overall sales figure of CHF 135.7 million (2017: CHF 139.8 million). The X-Ray Modules (IXM) division, led since January 2018 by Stephan Haferl, continued to expand its position in the core market of non-destructive testing and posted

“Despite the slump in the world market for semiconductors and declining trends in submarkets, the Comet Group delivered more-than-respectable results for the year.”

Hans Hess, Chairman of the Board

sales of CHF 81.2 million (2017: CHF 78.8 million). The fiscal year for the ebeam Technologies (EBT) division was marked by its realignment and the divestiture of the manufacturer of customized large systems in the USA. Sales decreased by 32.2% to CHF 20.0 million (2017: CHF 29.5 million).

One-time effects weigh on EBITDA and net income

The measures launched and systematically implemented to improve earnings in individual areas, as well as ongoing investments in major projects of strategic significance for the future, are reflected in the divisions' results. Thus, PCT swiftly adjusted production capacity in line with the semiconductor market downturn, while continuing to develop the RF power generator, which will open up a new and highly attractive market. In combination with shifts in the product mix, this resulted in an EBITDA operating



Hans Hess, Chairman of the Board, and René Lenggenhager, Chief Executive Officer, Comet Group

earnings figure of CHF 41.8 million (2017: CHF 55.7 million).

In the IXS and EBT divisions, after weak results in the first half of the year, Comet carried out a sweeping earnings improvement program under new divisional management. As previously announced, these changes will make themselves felt in 2019. At IXS, high investments in product portfolio development and one-off costs for the profitability improvement program resulted in a 2018 EBITDA operating loss of CHF 1.5 million (2017: profit of CHF 8.2 million). In the EBT division the one-time expenses for divesting the systems manufacturer in the USA led to a loss of CHF 20.2 million

at EBITDA level (2017: loss of CHF 16.2 million). Of this total, CHF 14.5 million was due to the now divested ebeam systems activities.

Thanks to its realignment to focus on the attractive module business, EBT will be able to reduce its cost base substantially overall in 2019. IXM performed well. Even with one-off costs for the facility expansion in Flamatt, the division improved its EBITDA operating earnings by 11.6% to CHF 20.0 million. Excluding the total one-time effects of CHF 12.0 million, the Comet Group's net income was CHF 24.3 million (2017: CHF 35.3 million). The return on capital employed (ROCE) before one-off costs was 11.1%.

Strong technology platform with attractive growth drivers

The Comet Group, a global technology leader based in Switzerland, has a strong technology platform focused on x-ray, radio frequency (RF) power and ebeam. Based on the shared core competencies of high vacuum, high voltage, materials science, and application and data-processing expertise, the Comet Group provides customers with innovative solutions for faster, more efficient processes and safer products in a wide range of applications and geographic markets. In line with its Strategy 2020, the Group intends to grow by building on its existing core competencies and technologies

“The Comet Group is in a sound financial position and, after taking earnings improvement measures in 2018, enters fiscal year 2019 on a strengthened footing.”

René Lenggenhager, CEO, Comet Group

and on the pooling of its strengths to leverage new applications while intensifying the collaboration with key accounts. As a diversified group, Comet is able to balance out fluctuations in individual markets and harness strong growth drivers such as the progressive digitalization fueled by the advance of artificial intelligence, the Internet of Things and data analytics, doing so across technologies. The ability of the modules and systems on offer to function as sensors and data generators provides the Group's divisions with the unique opportunity to jointly optimize customers' production processes and thus exploit growth potential and create added value.

Following the corrective actions taken in 2018, the Group enters 2019 in a stronger position thanks to a strong balance sheet and low net debt, and continues to execute its strategy of scaling innovative solutions into new applications.

Strengthened management team

Under CEO René Lenggenhager, the Comet Group not only laid the groundwork for improved profitability in the EBT and IXS segments. It also strengthened the management team in 2018 at the Executive Committee level by filling vacant positions: In January 2018, Stephan Haferl became President of the X-Ray Modules division and Prisca Hafner assumed the role of the Group's Chief Human Resources Officer, and in November 2018, Thomas Wenzel took over as President of the X-Ray Systems division from interim manager Matthias Barz. As well, the responsibility for business-specific tasks in the operations sphere was delegated to the divisions and the role of Chief Operations Officer was thus eliminated. This new structure creates direct, faster decision paths and enables more agile action attuned to customer needs.

Outlook for 2019

The Comet Group is in a sound position and, after implementing earnings improvement measures in 2018, enters fiscal year 2019 with a strong balance sheet and low net debt. As well, results in 2019 will benefit from the absence of last year's non-recurring expenses of about CHF 10.5 million. The long-term underlying drivers of business remain intact.

Currently the visibility in the semiconductor market – especially regarding the demand trend for 3D NAND memory chips, a major market for the Comet Group – continues to be very limited for all market participants and at present does not allow a Group-level forecast to be issued for 2019. For the Plasma

Control Technologies division, amid the continuing weak demand for 3D NAND chips coupled with high inventories, the Comet Group expects sales in the first six months of 2019 to be about 10–20% lower than in the second half of 2018; a prediction for the second half of 2019 cannot yet be made. Helped by strong new orders for new products such as the FF 20 CT and FF 35 CT, the X-Ray Systems division anticipates a slight year-over-year increase in sales for the full year 2019 and an EBITDA margin of approximately 6%. In the X-Ray Modules division, the Group expects slight sales growth for 2019 in line with that of 2018. As a result of existing contracts with key accounts and further investment in new applications, the ebeam Technologies division is projected to post 2019 sales of about CHF 15 million with an EBITDA loss of not more than CHF 5 million.

Dividend proposal of CHF 1.20 per share

At the Annual Shareholder Meeting on April 25, 2019, the Board of Directors will propose a dividend of CHF 1.20 per share (2018: CHF 1.50). Of this total, CHF 1.00 per share is to be paid from the remaining distributable paid-in capital, exempt from Swiss anticipatory tax, and CHF 0.20 per share is to be distributed as a regular dividend. Based on the underlying net income of CHF 24.3 million, the total proposed dividend represents a payout ratio of 38% (2018: 33%).

Charting of future direction is underway

As the current strategy period to 2020 is approaching its end, the

Sales

2018
CHF million

436.4

(Prior year: CHF 443.4 million)

Net income excluding
one-time effects2018
CHF million

24.3

(Prior year: CHF 35.3 million)

Return on capital employed
(ROCE)

2018

11.1%

(Prior year: 16.2%)

Board of Directors instructed management in 2018 to further develop the strategy with a view to the next period. In 2019 the Board will carefully consider the resulting proposals. Key themes will include the development of further geographic markets, applications and products; a strongly customer-focused marketing; enhancing speed and agility in management and processes; and, crucially, the digitalization of products, processes and services, and building-up of the data analytics expertise in the Group.

Nominations for election to the Board of Directors

After 14 years as a Board member and 12 years as Chairman of Comet Holding AG, Hans Hess will not be standing for re-election, as already announced in February 2018. During his tenure, he has played a key role in directing the company's impressive development and growth and been instrumental in strong value generation. The Board of Directors thanks Hans Hess for his large contribution. Following a comprehensive search process for the succession, the Board of Directors is proposing Chris-

toph Kutter, Director of the Fraunhofer Institute for Microsystems and Solid State Technologies (EMFT), Munich, to shareholders as non-executive and independent Chairman of the Board. The Board of Directors is very confident that Christoph Kutter, with his 17 years of international strategic and operational experience in the semiconductor industry, his wide-ranging understanding of technology and his expertise in components, systems and software, is exceedingly well qualified to lead the Comet Group into the future as its Chairman and add value to the company.

Having served on the Board for twelve years, Lucas Grolimund, chairman of the Audit Committee, is also not standing for re-election. As the successor to Lucas Grolimund, the Board is proposing that shareholders elect Patrick Jany, Chief Financial Officer of Clariant, as an independent member of the Board of Directors. If elected he will assume the chairmanship of the Audit Committee from Lucas Grolimund.

Thank you

The Board and management would like to thank the Group's partners and customers for the close collaboration, trust and confidence with which we have been privileged. A special thank you goes to all our employees, who with their strong commitment successfully mastered the year's challenges, and to our shareholders for their confidence in our company.



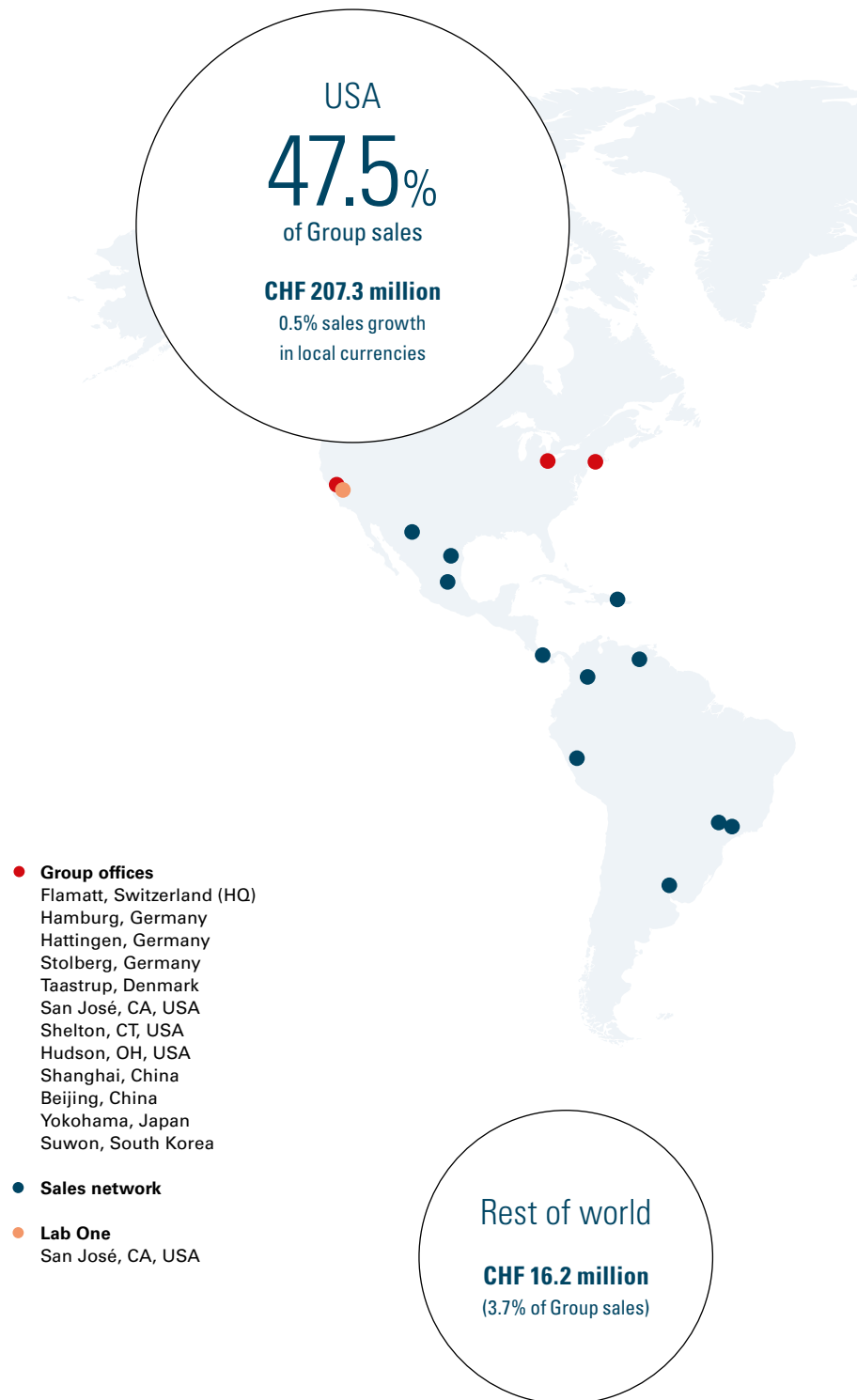
Hans Hess
Chairman of the Board

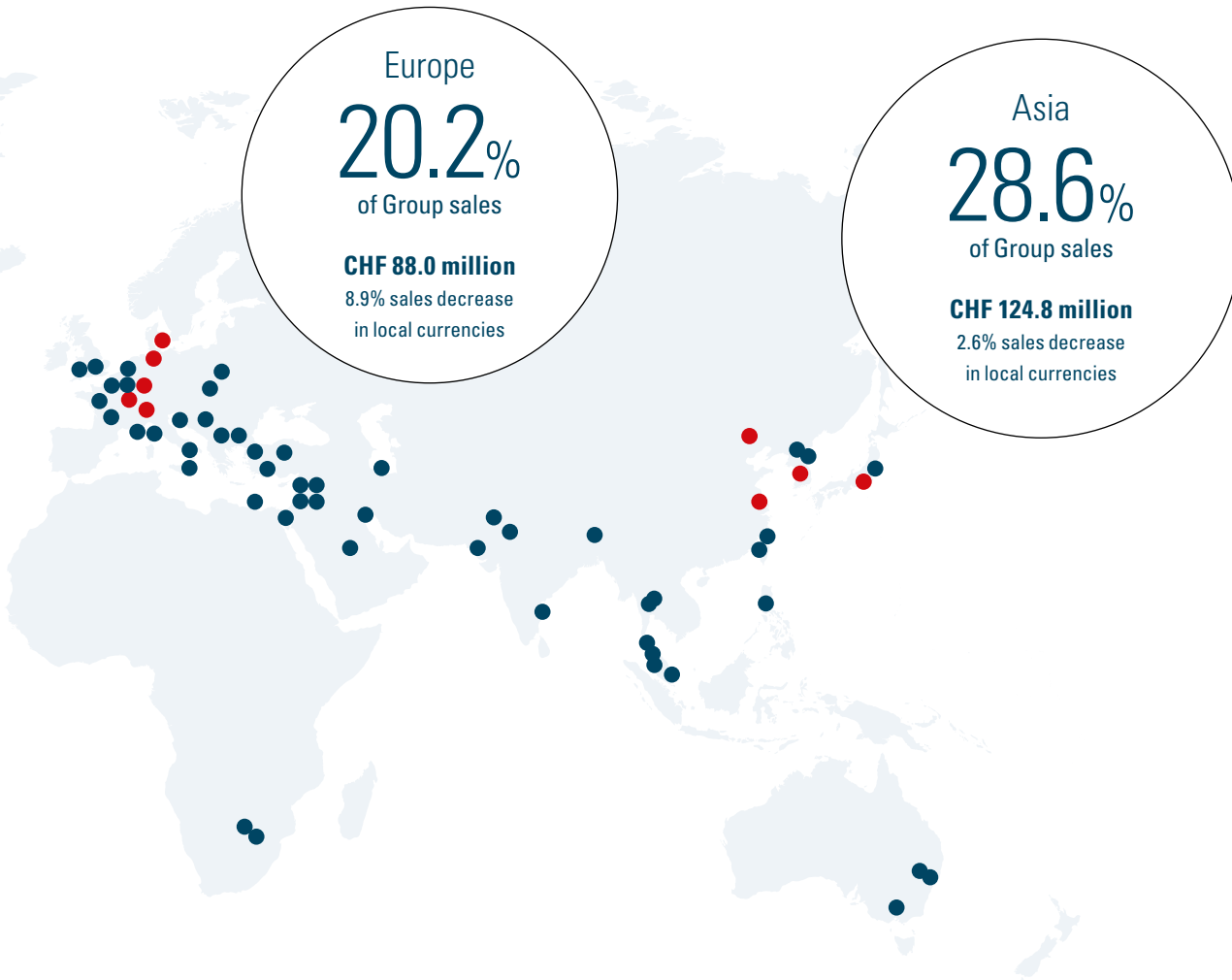


René Lenggenhager
Chief Executive Officer

Strong global presence

The Comet Group has a strong global sales network and 13 of its own locations around the world. In its largest market, the USA, it achieved slight growth in 2018, while sales in the European market showed a significant decrease.





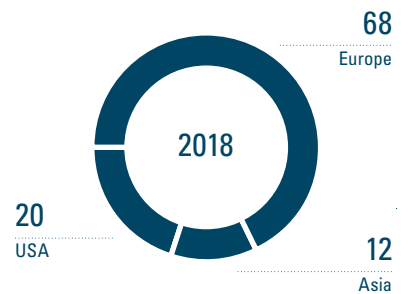
Number of employees

2018

1,346

Including 20% in R & D

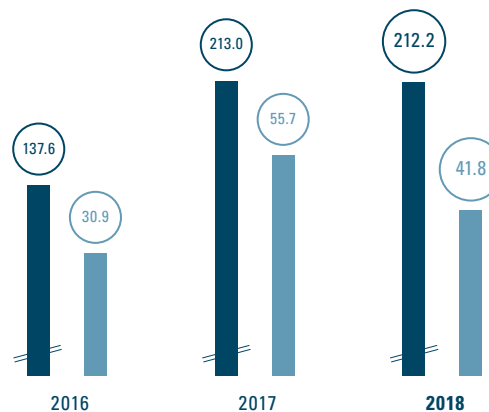
Employee distribution by region, in %



Business in the divisions

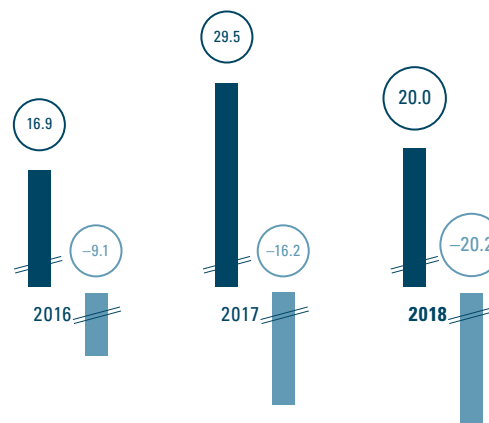
Despite a sharp downturn in the semiconductor market, the Comet Group's sales of CHF 436.4 million in 2018 very nearly matched the 2017 record. The Group took rapid and significant steps to enhance earnings performance in individual areas and maintained important investments in strategically valuable projects to ensure the sustained development of its businesses.

PCT PLASMA CONTROL TECHNOLOGIES



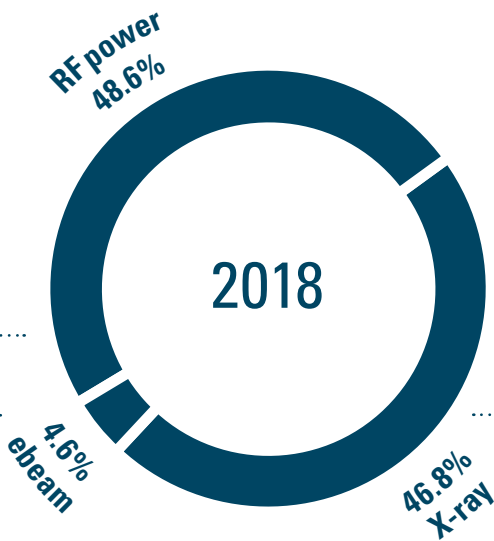
PCT achieved sales virtually at the prior-year level despite a pronounced slow-down of the semiconductor market in the second half of the year. The division swiftly aligned its capacity with demand. However, shifts in the product mix and intensive investment in development projects for the future reduced EBITDA operating earnings.

EBT EBEAM TECHNOLOGIES

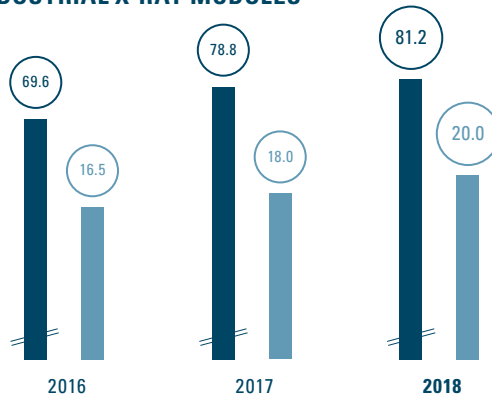


For EBT the year's defining developments were the disposal of the loss-making ebeam systems business in the USA and the refocusing on the OEM business. The division registered a loss of CHF 20.2 million, of which CHF 14.5 million was due to the now divested ebeam systems activities.

■ Sales in CHF million
■ EBITDA in CHF million

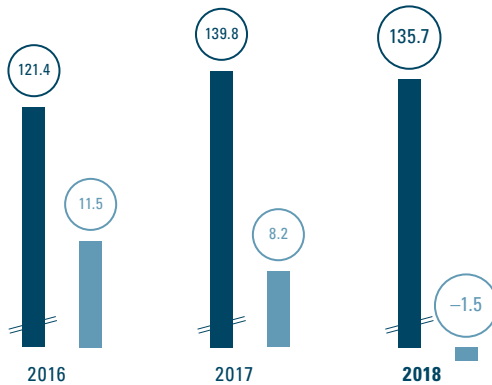


IXM INDUSTRIAL X-RAY MODULES



IXM further expanded its position in the core business of non-destructive testing, driving slight sales growth for the year. Even with one-off costs for the facility expansion in Flamatt, the division further improved its EBITDA operating earnings.

IXS X-RAY SYSTEMS



For IXS, successes with new products, above all in the electronics market, coincided with decreases in other submarkets where portfolios were not yet renewed, leading to overall sales slightly below the prior-year level. After a weak first six months the division, under new leadership, executed an earnings improvement program by the year-end whose results will be felt in 2019. One-time costs for this, together with high investments in product renewal, led to an EBITDA loss.

PCT

PLASMA CONTROL TECHNOLOGIES

Core business

Comet's Plasma Control Technologies division (PCT) specializes in the production of high-performance components and modules for thin-film deposition and etching of surfaces under plasma conditions.

Products

- Development and marketing of integrated RF (radio frequency) modules
- High-quality vacuum capacitors
- High-performance RF generators
- Impedance matching networks

Applications

Ultra-precise control of plasma processes, such as in the production of memory chips, flat panel displays and OLED applications.

Customers

OEMs in the semiconductor, flat panel and OLED sectors as well as in the electronics industry, including microelectronics.

In an environment involving a major downswing in the semiconductor market, PCT was able to achieve 2018 sales of CHF 212.2 million, in line with the year before (CHF 213.0 million). Shifts in the product mix and high investment in forward-looking development projects led to EBITDA operating earnings of CHF 41.8 million (prior year: CHF 55.7 million). The EBITDA margin was 19.7% (prior year: 26.1%).

The Plasma Control Technologies division (PCT) is one of the world's leading vendors of RF power products. Its strongest pillar is the business with high-end RF solutions for the fabrication of memory chips.

Slump in semiconductor market affected second half of year

In 2018, PCT witnessed a very dynamic, volatile trajectory in the semiconductor

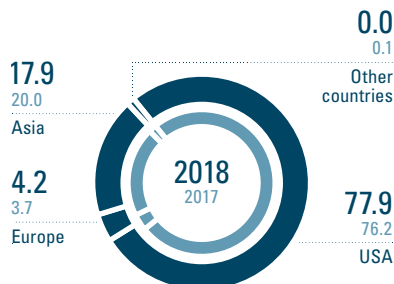
market. In the first six months, after several years of strong growth, the division recorded the highest sales in its history, yet from the middle of the year the weak demand for memory chips and short-term postponements of customer projects to equip fabrication plants led to an unexpectedly sharp slowdown in the market and a sales decrease of 28% in the second half of the year compared to the first half. On balance for the full year 2018, PCT's sales therefore remained steady at the prior-year level. The downturn in the semiconductor market in Japan pushed sales in Asia 11% lower year-over-year. PCT did well with vacuum capacitors for the production of flat panel displays, increasing its sales by one-third from the year-ago period.

Anticipation, high flexibility, and invigorated power to innovate

Shifts in the product mix and important investments in projects of strategic significance for the future sharply reduced the EBITDA margin compared to last year. The negative effects of the cycle change in the semiconductor market in the second half of 2018 were cushioned through anticipation

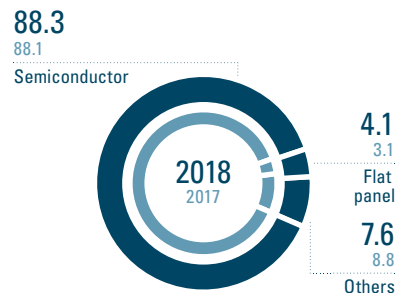
Sales split by region

In percent



Sales split by market

In percent



and PCT's flexibility: The division rapidly adjusted its capacity and continued to drive lean initiatives forward.

PCT is the only manufacturer worldwide to develop and produce all core components of the RF power delivery system in-house. The modular, flexible and highly precise generators now under development are the cornerstone of the planned new RF system solution with which PCT intends to address a significant market from 2020. PCT's work on the new platform in 2018 progressed on schedule. The Smart Lab, which is essential for automated test runs of the new generators, was also put into operation on plan and was presented to the first customers. PCT set the stage for future growth in the market for flat panels with the successful market launch of new vacuum capacitors, which have already been very well received by customers.

IXS X-RAY SYSTEMS

Core business

The IXS division is one of the world's leading manufacturers of integrated solutions for non-destructive testing. It operates under the Yxlon brand name.

Products

- Industrial customized or standard in-line and at-line inspection systems in the product areas of x-ray, microfocus and computed tomography (CT)
- Service and support

Applications

- Non-destructive testing of: tiny to very large components, castings, welds and materials
- CT metrology

Customers

End customers in the electronics, automotive and aerospace industries and research institutions.

IXS had success with new products, while volume decreased in individual markets. The division's sales for the year were CHF 135.7 million (prior year: CHF 139.8 million). Strong investment in product renewal and one-time costs for earnings improvement measures led to an EBITDA loss of CHF 1.5 million (prior year: profit of CHF 8.2 million).

IXS saw very divergent trends in its different markets in 2018.

Growth was achieved in systems for the electronics industry: Sales in this segment, which accounts for about 30% of the division's total, expanded by 7%. Despite the market slowdown which began in the latter half of the year, the product innovations were very well received by customers. IXS also grew in the area of inspection systems for research on new materials, which after a weak first half gained ground thanks to enhanced and new products.

In the markets for the inspection of wheels and castings, on the other hand, for which IXS is currently developing a new portfolio, the division's sales were down. In an increasingly price-sensitive tire inspection market that moved sideways, IXS benefited both from the billing of sales for orders booked in the prior year and from a high service share.

In inspection systems for the aerospace industry, a classic key account business, IXS won another large customer for future growth.

535
Employees

6
Locations



Heightened agility and reduced costs

After a weak first six months at IXS, the Comet Group launched a sweeping earnings improvement program in this division that will already gain traction in 2019. Interim management responsibility for the division was transferred to Matthias Barz. With effect from December 1, 2018, Thomas Wenzel, who had been its Vice President of Technology since 2015, was appointed as the new President of the IXS division.

The weakness of business, the high investment in the advancement of the product portfolio, and one-off costs for the program to improve future earnings completed at the end of 2018, resulted in an EBITDA margin of -1.1% (prior year: 5.9%). The Comet Group is confident that IXS, with its organization tuned for higher efficiency, will be able to deliver profitable growth again from 2019. The target for 2019 is an EBITDA margin of about 6%.

An important success factor for Yxlon is the steady further development of the product range. With the FF20 and FF35 systems as well as the new Cougar and Cheetah EVO systems for electronics component in-

420
Employees

7
Locations



spection available since the beginning of 2018, IXS already realized substantial sales in the same fiscal year. Innovation awards for the FF35 CT Metrology and the Cheetah EVO Plus x-ray inspection system validate the direction taken. As well, the successful launch of the FF85 CT marked another milestone in the implementation of the division's portfolio renewal.

IXM
INDUSTRIAL X-RAY MODULES

Core business

The Industrial X-Ray Modules division (IXM) develops, manufactures and markets innovative, x-ray-based components and modules for non-destructive testing and security inspection.

Products

- Industrial x-ray components and sources
- Portable x-ray modules

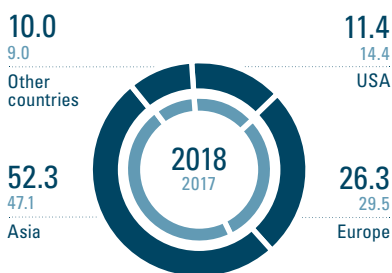
Applications

Non-destructive testing, safety inspection, thickness measurement of steel and other applications.

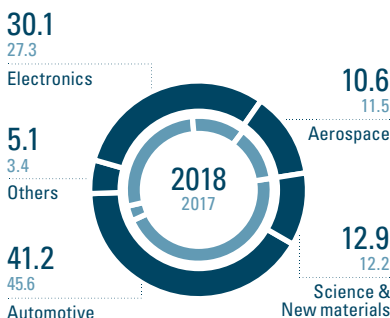
Customers

Suppliers to the automotive, aerospace, pipeline and steel industries; end customers in the oil and gas business and in security inspection.

Sales split by region
In percent



Sales split by market
In percent



IXM further expanded its position in the NDT market, while the security inspection business showed a strong contraction for market reasons. On balance, IXM's sales grew by 3.0% to CHF 81.2 million and EBITDA operating earnings further improved by 11.6% to CHF 20.0 million. The EBITDA margin was 24.7%.

The Industrial X-Ray Modules division (IXM), led since January 2018 by Stephan Haferl, successfully continued to grow its position in the core business of non-destructive testing (NDT). The business volume in the NDT segment, which accounts for more than two-thirds of IXM's sales, grew by 11.0%. While sales with the sister division IXS were down, sales gains were made with other customers. Especially in the USA, the division was able to win business with its robust, portable Smart EVO x-ray solutions for pipeline inspection in the oil and gas sector. This was reflected in compel-

ling growth of IXM's sales in the USA. The previous years' investments in the innovative iVario™ generator also paid off: Large numbers of customers integrated the new product within a few months of its introduction. This clear signal of wide acceptance of the new concept is all the more significant as IXM possesses a large installed base in the generator market.

In the security inspection business the division, which had expected 2018 to be in line with the previous year, was faced with a surprisingly steep market correction that entailed a decline of 25.6% in sales. The reasons were postponed major projects in the sector, subdued investment in expansion and upgrading, and delays in the introduction of new, innovative solutions in this market, which is dependent on government investment.

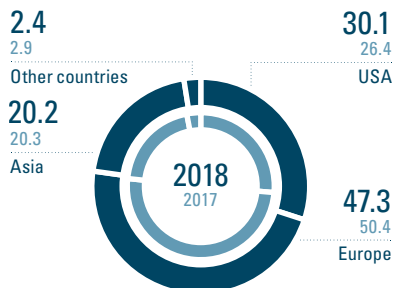
Across all market segments in 2018, IXM noted an encouragingly strong increase in sales to small and medium-sized customers – a definite endorsement of the excellent price-performance ratio of the division's high-end products.

Improved margins thanks to profitable growth in portable x-ray units

The strong results in portable x-ray inspection devices for oil and gas companies drove a pronounced margin improvement in the core business segment of non-destructive testing. This more than made up for the decrease in security inspection sales, one-time effects of the production relocation in Flamatt, and (due to the slowing of business at some customers) productivity reductions in the pre-manufacturing of intermediate products for use by the Group. Operating earnings at EBITDA level improved in 2018 from the year before. In a demanding year this translated into an increase in EBITDA margin to 24.7% (prior year: 22.8%).

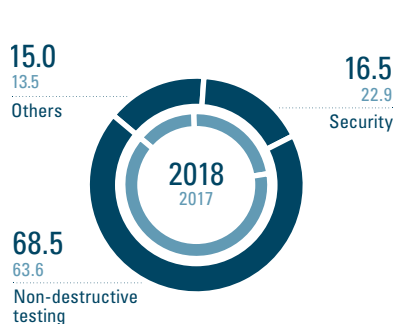
Sales split by region

In percent



Sales split by market

In percent



314

Employees

5

Locations



EBT

EBEAM TECHNOLOGIES

Core business

Development and production of compact ebeam components and modules for the resource-efficient, chemical-free treatment of surfaces and materials.

Products

- Compact, sealed ebeam components and modules with a long service life
- EBLabs (flexible lab equipment for testing of ebeam applications at universities and research institutions)

Applications

Innovative, efficient and eco-friendly technology for sterilizing food packaging and pharmaceutical packaging and for bacterial inactivation on food and on hatching eggs.

Customers

Systems manufacturers in the packaging, food and pharmaceutical industries, producers of hatching eggs, and universities and research institutions.

Strategic refocusing and the divestiture of the systems business marked EBT's fiscal year. Sales fell by 32.2% to CHF 20.0 million (prior year: CHF 29.5 million). The EBITDA loss rose to CHF 20.2 million (prior year: loss of CHF 16.2 million) on one-time costs.

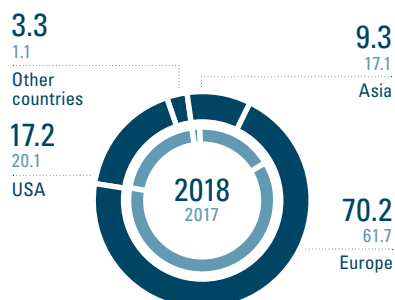
The results of the previous years' investments in the renewal of the product portfolio of the large-systems business in Davenport, Iowa, USA, as well as restructuring measures, did not meet expectations. The Comet Group therefore decided to realign the ebeam business and divest the loss-making manufacturer of customized systems in Davenport. The divestiture was completed more rapidly and with a slightly lower impact on net income than expected, thanks to the transfer to a local technology group that took over the operational business, the great majority of the employees, and the obligations to customers.

Going forward, the division will focus on the OEM components and modules business, which promises long-term success and allows industrial processes to be made more eco-friendly and productive. EBT is placing these activities on a new and attractive footing. It will eliminate current losses in the near future, is raising operational excellence and lowering costs in the continuing business.

The Group sees attractive medium-term opportunities for the continuing business to grow and generate value by scaling existing capabilities in related and new applications. Comet is working on innovative solutions with partners such as Tetra Pak, Bühler and Skan, and made significant progress in this area in 2018. Thus, Bühler presented its first system for the inactivation of bacteria on granular foods. Field tests of the corresponding application for hatching eggs yielded positive results. For 2019 the ebeam business is projected to post sales of approximately CHF 15 million with an EBITDA loss of not more than CHF 5 million.

Sales split by region

In percent



77

Employees

5

Locations



Playing on strengths

Innovative, global, passionate, customer-focused: It is these individuals who drive technology solutions and live by our strong values. Each and every day.



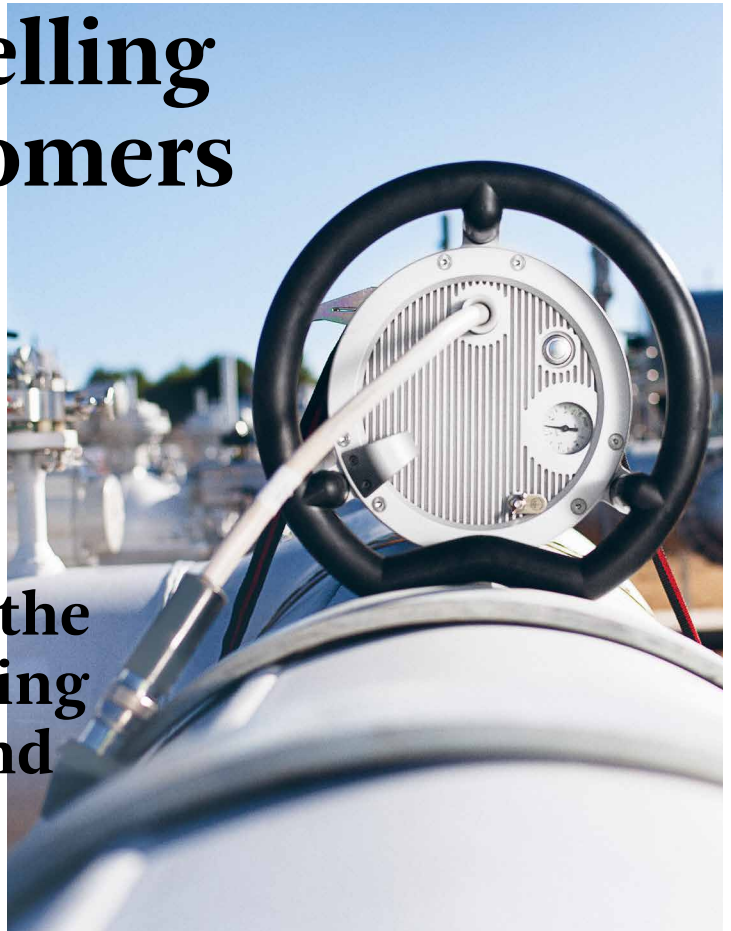
Rebecca Rudolph
Vice President, Global Sales,
Comet IXM, USA

The former head of Microscopy and Imaging at the American Museum of Natural History was at one time a specialist intensely involved with the technology she now sells. Its fascination has never left her. For more than four years Rebecca Rudolph has passionately helped her customers to solve their complex detection challenges using Comet's technologies. "What makes me stand out? I want to enable my customers to be exceptionally successful. I want the extraordinary for them."

The module strategy succeeds

Adding compelling value for customers

“We are taking x-ray technology well into the 21st century: Delivering enhanced stability and intelligent software-based functionality.”

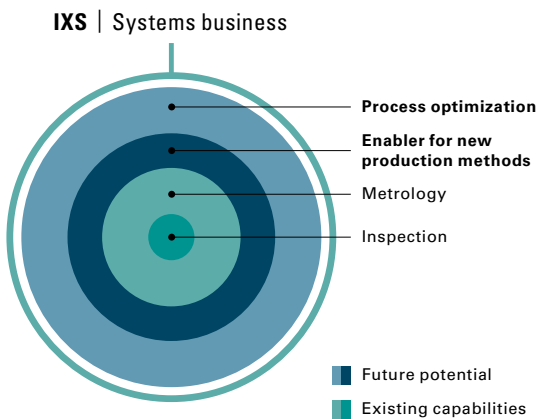


Pipeline inspection using an x-ray module from Comet.

“Our long-established position in the x-ray module space provides us unmatched access to our customers and gives us a thorough understanding of their needs and challenges. This allows us to tailor our components closely to our customers' constantly evolving requirements. As a result, we create value for our growing customer base in an expanding range of applications – nowhere more so than in the inspection of increasingly complex components and novel materials. Whether for the qualification of parts in automotive and aircraft production, for oil and gas pipeline fabrication and inspection, or for the screening of baggage and cargo at airports, ports and borders, the IXM division has created a powerful value proposition. In this way, we contribute to reliability, safety, and security on multiple levels,” says Rebecca Rudolph.

New approaches for new growth

From inspection to process optimization



In inspection, IXS is able to build on its strengths and the successful integration of measurement technology. The division is now focusing on strengthening its position in integrated process control and building the capabilities needed to develop solutions for the optimization of manufacturing processes.

Thomas Wenzel’s vision for IXS goes far beyond inspection applications. “In CT today we deliver the best image, but even more importantly, CT as a technology provides the best sensor in the industrial manufacturing sphere. And this combination is precisely the key to future growth for our x-ray systems,” says the new President of the IXS division. He adds that, while the focus today is on hardware and image quality for optimum defect recognition, tomorrow’s emphasis will be on analytics software and comprehensive data for the predictive optimization of entire production processes. “For defect detection we only need 5% of all the data we generate. Our goal is to leverage the unused 95%, together with deep learning techniques, to optimize existing manufacturing processes. Our customers will thus be able to analyze data about every process step and so improve their value chain even when the pieces inspected are defect-free. This is particularly important for new production methods, such as additive manufacturing.”

“Data analytics and machine learning combined with the best image chain – this is the future of our x-ray systems. It will turn them into a powerful optimization tool for our customers’ production processes.”



Thomas Wenzel
President, X-Ray
Systems (IXS) division

“Every day, we have the ability to open up a new world, make visible things we have never before seen, and convince customers to use x-ray technology who would never have thought of it” – this is what excites him about his work, says Wenzel, who holds a computer science degree and a PhD in engineering. As a specialist for computed tomography, process-integrated test systems, data analysis and machine learning, he knows how the IXS division can exploit growth opportunities from digitalization through new product development.



ebeam

Gregor Hommes,
Senior Business Development
Manager, EBT division

With his interdisciplinary background and wide commercial experience, the PhD biologist knows how to bring people and issues together and drive R&D projects forward from the initial idea to market readiness. Today, his daily work is all about the inactivation of bacteria on synthetic and on natural packaging, such as eggshells.

Sustainable and much more productive

With focus and the power of accelerated electrons

“Working with a technology that makes life better, that helps the environment and makes production processes more efficient is a daily source of motivation for me.”

“ebeam is incredibly versatile. That makes it critical for us to focus and to combine forces,” says Gregor Hommes, who has been closely involved in Comet’s emerging ebeam business for six years. The EBT division has developed sterilization applications with Tetra Pak and Bühler, companies which are making strategic use of the ebeam technology. EBT is now in talks with possible partners for developing the prototype for the treatment of hatching eggs. Through such collaborations, the reorganized division wants to scale up what has been achieved so far in terms of the technology, products, manufacturing, and the application itself. “Take our project for treating hatching eggs,” expands Gregor Hommes. “In it we were able to build on our experience with Tetra Pak drink cartons – which makes perfect sense, as an eggshell is simply a form of natural packaging. And in turn, we are now assessing what further application we can base on our work with hatching eggs.”

2009



Comet presents a compact tube for using accelerated electrons in industrial manufacturing processes – and wins the Swiss Technology Award.

2015



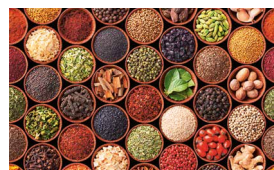
Tetra Pak unveils the market-ready beverage filling system equipped with ebeam. Start of the partnership with Bühler.

2017



Bell Food Group and EBT begin the development of an application for the sterilization of hatching eggs. Tetra Pak is using ebeam in full-scale production.

2018



Bühler presents its machine for microbial elimination using ebeam technology in a technical launch. The trials in the hatching egg project are successful.

Improvement of plasma processes

Pure innovation: The integrated radio frequency power system from Comet

“Being located in Suwon at the center of the Korean semiconductor industry, with a team of highly skilled and motivated developers, makes all the difference for us,” says Yong Tae Kim. Since opening five years ago, the subsidiary has succeeded in building long-term relationships of trust with important players and has grown continually. “This is only possible because we are well-established locally with our expertise and know our customers’ challenges in detail. We do development right here, hand in hand with them – rapidly, nimbly, and precisely customized to their needs. Our customers are impatient, always looking for the best solution and for true innovation. And they want the very highest quality.” Comet PCT is highly regarded in the Korean market for its vacuum capacitors and recognized as a globally leading manufacturer of impedance matching networks. In view of the trend toward integrated solutions, the development of the coming new radio frequency (RF) system is a logical progression. “PCT is taking its offering to the next level, which will change our role in the market starting in 2020. For us, it’s a big opportunity for significant growth in tandem with our customers.”

“A complete digital and modular RF solution is something truly new and our innovation-hungry customers await it with keen curiosity.”

Comet PCT evolves into the only vendor of complete RF power supply systems:

1965



Comet enters the market for vacuum capacitors and thus develops a second core business besides x-ray.

2004



The first Comet PCT impedance-matching network is brought to market. PCT becomes the world market leader.

2011



Acquisition of the RF and VHF generator specialist Stolberg HF-Technik AG. PCT now offers compatible components as a one-stop supplier.

2018



The Smart Lab, which is essential for automated test runs of the new generators, starts operation.



Yong Tae Kim
General Manager
Comet Technologies Korea

The materials engineer knows the semiconductor industry in Korea like few others. After three years as an independent distributor for Comet PCT, he presented a compelling growth plan for the Korean semiconductor market and opened the Comet subsidiary in Suwon in 2013, which he has headed since then. The small team with staff in customer service, sales and R&D is well diversified. "Today almost every RF engineer in Korea knows Comet PCT," says Yong Tae Kim with some pride.



Markus Hess
Director, Global Logistics,
Comet Group

The racks have since filled. The small-parts storage system in Flamatt is running smoothly – and represents a logistical precision landing. From first-hand experience in his career, Hess, who holds a business degree, knows how significant logistics has become for companies. With global responsibility for the Group's logistics, he brings efficiency and speed to internal and external logistics processes and ensures compliance with international freight and foreign trade regulations.

Facilitating profitable growth

More efficiency in logistics and production

Comet strives for profitable growth. That takes agility, speed and high efficiency, but also space. The facility expansion built in Flamatt offers the Comet Group's divisions this room and the opportunity to organize production along lean lines and automate it. This also includes the just-in-time procurement and delivery of small parts to the production floor. "Thanks to the new storage system we now have the capability to handle up to 300 storage and retrieval operations per hour," explains Markus Hess, who was personally responsible for the completion and introduction of the automated small parts storage system in Flamatt.

"With the automated management, storage, order picking and delivery, we are answering many of the needs of continuous lean manufacturing: We are delivering much more quickly and with high reliability. We are flexible and agile; the system adjusts smoothly to the pace of demand from production, processing several orders simultaneously. We are efficient, because we handle large volumes with the same small number of employees. As well, the central and highly compact warehouse saves 600 square meters of space compared to before, which we can use for the optimal organization of our production operations."

"Precisely timed, cost-optimized, flexible and very dependable – our new automated storage system is an important factor enabling lean production in Flamatt."

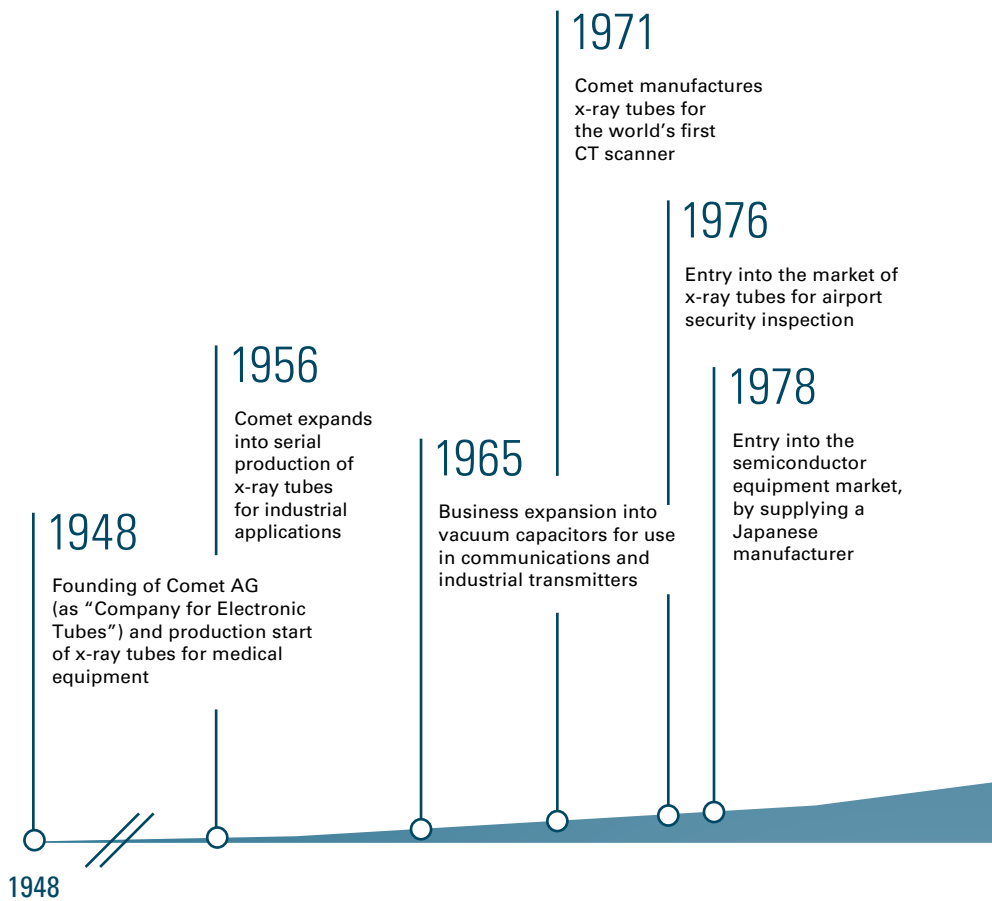


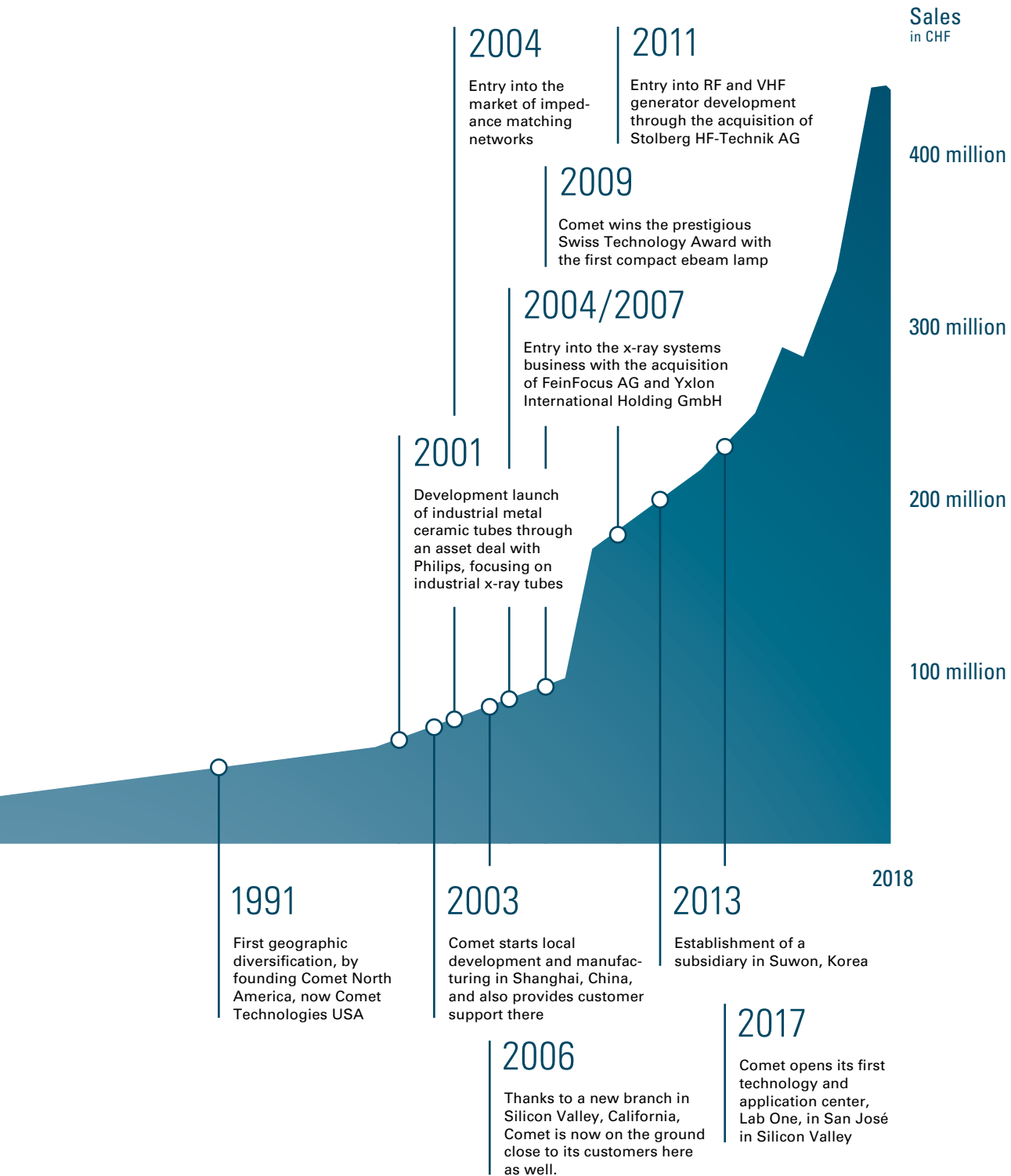
Shuttles supply parts to production just in time.

Growth and resilience through innovation and diversification

Over its now seventy-year history, Comet has grown into a leading global high-tech company with a diversified positioning. This success and the strong growth of recent years would have been unthinkable without steady, high investment in innovative and custom-tailored solutions for existing and new markets.

The Group annually invests about 11 % of its sales in R&D, thereby opening up new applications, services and markets based on its technologies and core competencies. As a maker of x-ray tubes, Comet laid the foundation for today's PCT business back in 1965 by launching the development of vacuum capacitors and establishing the first customer relationships with manufacturers in the semiconductor industry in Japan and then in the USA. With the subsequent development of its own impedance matching networks and generators, Comet is now becoming a provider of complete RF power systems. Comet also laid important groundwork in 2001 by additionally focusing on industrial x-ray modules, followed by the entry into the x-ray systems business and the electronics, automotive and aerospace markets via acquisitions. And through the development of the compact ebeam lamp, Comet gained entry to the market for food safety. By virtue of diversification, Comet today is well-positioned in a variety of high-growth markets.





Strategy and outlook

The Comet Group is on a stable footing. It has a strong balance sheet, a clear strategy, a clear business model, and great medium-term growth potential. After operational corrective action in 2018, the Group enters 2019 as a stronger entity and continues to execute its Strategy 2020. Comet sees its strong technology platform as a unique opportunity to exploit the growth potential offered by digitalization and generate value-added.

The Comet Group offers a strong technology platform focused on x-ray, radio frequency power and ebeam. The shared core competencies of high vacuum, high voltage, and materials science together with comprehensive application and data processing expertise are the key to the development of the Group's leading solutions in all its technologies. Synergies for operational efficiency exist in production, for example. Thus, vacuum capacitors, x-ray tubes and ebeam lamps share the same supply chain and in-house pre-manufacturing of input parts. This safeguards the unparalleled quality of Comet's durable, high-end products and ensures efficient production. Based on this strong common platform, the Comet Group, true to its Strategy 2020, plans to grow through new applications and intensified collaboration with key accounts.

Charting of future direction is in progress

The Board of Directors is confident that, by building on its Strategy 2020, Comet will continue to create value for its stakeholders. To this end, management and the Board of Directors are working together to evolve the strategy of the divisions and the Group for the next period.

The Group operates in a dynamic environment with constantly changing customer needs and new technological opportunities. Powerful hardware is increasingly combined with software and data analytics. In the future this will allow customers to be offered more comprehensive solutions and additional services, which will also translate into clear added value for shareholders. The Board and management are convinced that, with a view to the advancing megatrend of digitalization, the Comet Group's present well-supported technology platform gives it unique strengths and substantial synergies.

Potential and synergies from digitalization

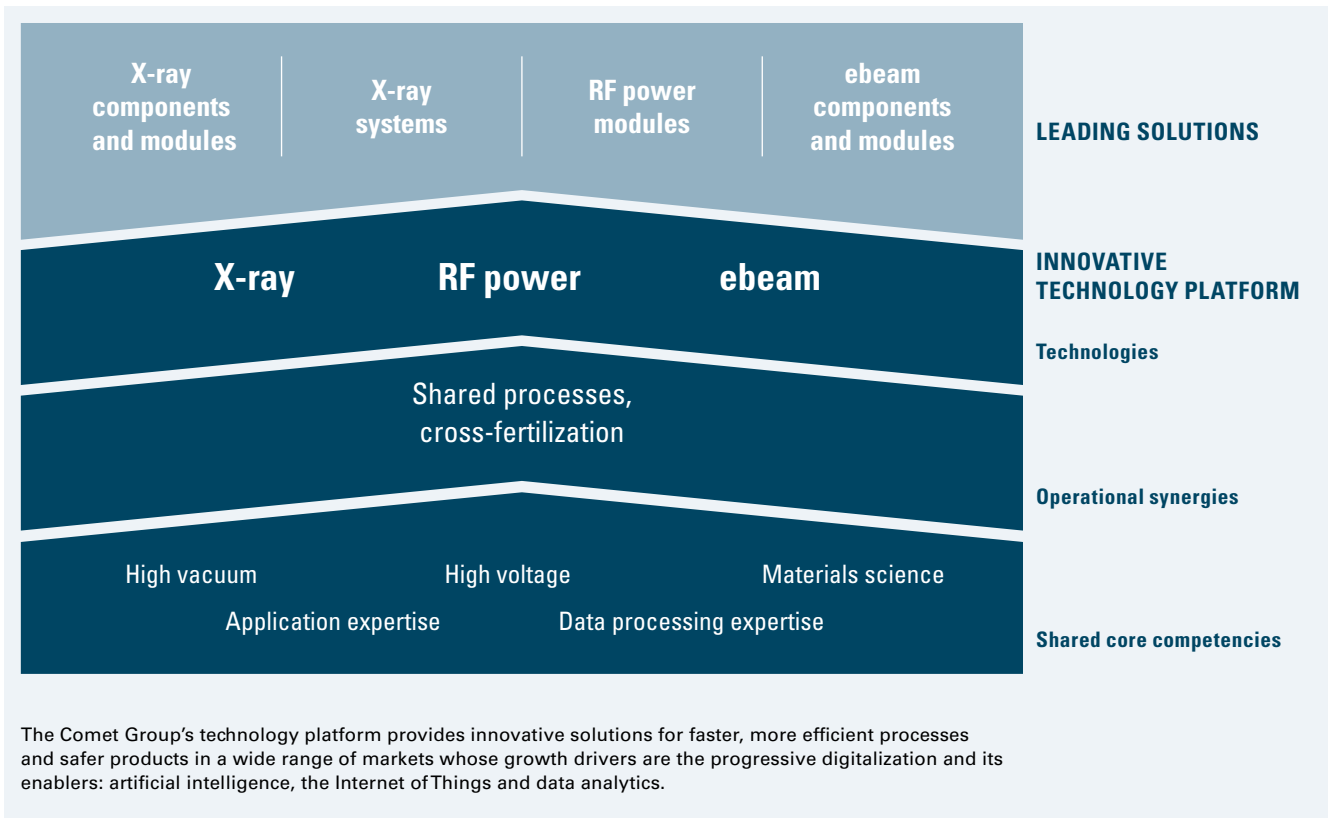
All of the Group's products, besides their original function of non-destructive examination, plasma control or surface treatment, can also be considered as sensors. Either directly or when equipped with an additional sensor, they can provide critical data not only on their own maintenance status but also on the customer's production process. And all three technologies are able to employ a similar approach to data processing and analytics. Going forward, the collaboration between its divisions will speed Comet's learning

“Digitalization and data analytics open up new growth potential and attractive scope for synergies.”

René Lenggenhager, CEO, Comet Group

and let it more rapidly develop products and services that add value for end customers in the optimization of their processes. This applies especially in Comet's role as a manufacturer of x-ray modules and industrial x-ray systems: Customized products for applications in different segments such as electronics and automotive can be developed more quickly and tailored more precisely thanks to the proximity of the system manufacturer to the end customer.

The Comet Group as one of the world's leading vendors of radio frequency technology, x-ray modules for non-destructive testing and security inspection, and industrial x-ray systems, and as the only maker of compact ebeam lamps worldwide, is well-positioned in markets with high growth potential. In the strategy process now underway, the Group will determine which concrete approaches, and especially ones spanning multiple technologies and markets, will be used to exploit this potential.



Comet enters 2019 stronger

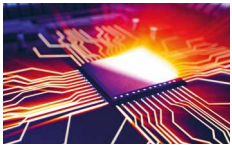
In the interim, Comet will continue to execute its Strategy 2020. The corrective measures initiated in 2018 and now completed will have a positive impact on profitability in the EBT and IXS divisions. In addition, in 2019 and beyond, Group initiatives such as lean production processes, cost savings in purchasing and logistics, and the accelerated development and testing of the PCT division's new generators in the recently opened Smart Lab will raise efficiency and further reduce costs. To ensure growth after 2020, the Group will also continue to invest in the development of new products, processes and services.

Unchanged high growth potential in the medium term

The Board of Directors and management believe that the Group's medium-term potential remains high due to powerful growth drivers such as artificial intelligence, the Internet of Things and data analytics. Its positioning spanning multiple technologies and markets will prove a unique boon for the Comet Group amid the growing digitalization and will generate added value for investors, customers and other stakeholders.

PCT

PLASMA CONTROL TECHNOLOGIES



PCT believes that, despite the current slowdown, the growth opportunities in the semiconductor market offered by fundamental drivers such as the Internet of Things and artificial intelligence are intact. The market requires a wide range of RF solutions. Innovation and fast time-to-market are becoming ever more important. Package offerings and customized solutions are in growing demand. As the world's only manufacturer of all core components of the RF power delivery unit, and with the progress made in the development of a completely digitalized modular platform, PCT is ideally positioned. Development times are further shortened in the Smart Lab, and production processes are automated and made leaner, particularly at the Flamatt site. The successful launch of the new generator will be key for sustained growth after 2020.

IXS

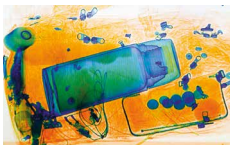
X-RAY SYSTEMS



Thanks to lean processes, IXS will grow profitably again from 2019. This year the division will bring four product innovations for Industry 4.0 to market. As well, metrology functionalities are being improved and upgraded. IXS is well positioned in the x-ray inspection market and has potential that goes far beyond the currently offered defect analysis. Strong drivers are 3D printing, metrology, computed tomography and in-line inspection. By leveraging data analytics and machine learning, x-ray technology will in future play an important role in optimizing customers' manufacturing processes. Similarities in data analysis methods and algorithms between the x-ray modules and x-ray systems businesses, and close collaboration between them, are to allow new solutions and added value to be created for customers going forward.

IXM

INDUSTRIAL X-RAY MODULES



By offering intelligent modules based on the iVario, the unique IoT-capable generator, IXM was able to expand its value chain and its target market as planned. On this basis, the division is working to augment its product range. It is exploring options for how to expand its offering toward coverage of the entire image data chain, in collaboration with manufacturers of x-ray detectors. The non-destructive testing market offers IXM attractive growth opportunities in robotics, automated in-line applications, miniaturization and additive manufacturing. In the security inspection market, the focus is on launching integrated products that reflect the market's increased price sensitivity.

EBT

EBEAM TECHNOLOGIES



Thanks to its completed realignment, the emerging and developing ebeam business enters 2019 stronger and with a lower cost base than in 2018. The aim is for it to continue to serve as a reliable development partner and manufacturer of ebeam lamps for customers such as Tetra Pak and Bühler. At the same time, Comet will continue to invest in the ebeam OEM business of compact ebeam engines. To accelerate new-application development, it is to be conducted in areas related to the core applications developed so far for packaging sterilization and food safety. The focus will be on engaging a suitable OEM partner to engineer and build the prototype for the inactivation of bacteria on hatching eggs.

Comet Group Consolidated Financial Statements

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39	Notes to the consolidated financial statements
87	Report of the statutory auditor

Consolidated balance sheet

In thousands of CHF	Note	Dec. 31, 2018	%	Dec. 31, 2017 restated ¹	%	Jan. 1, 2017 restated ¹
Assets						
Cash and cash equivalents		43,007		60,420		74,832
Trade and other receivables	5	63,943		64,574		47,872
Other financial assets	6	26		277		152
Tax receivables		2,893		2,660		–
Inventories	7	91,090		102,825		92,372
Prepaid expenses	8	5,109		4,555		3,784
Total current assets		206,068	56.0%	235,311	60.4%	219,012
Property, plant and equipment	9	113,591		95,056		66,902
Intangible assets	10	40,827		51,647		49,703
Financial assets	6	209		239		234
Deferred tax assets	12	7,063		7,536		8,320
Total non-current assets		161,691	44.0%	154,478	39.6%	125,159
Total assets		367,759	100.0%	389,789	100.0%	344,171
Liabilities and shareholders' equity						
Current debt	13	5,000		2,132		2,666
Trade and other payables	14	34,919		42,545		30,516
Contract liabilities	3	19,992		29,171		33,063
Other financial liabilities	6	379		2		184
Tax payables		870		3,131		5,408
Accrued expenses	15	20,316		25,758		18,048
Current provisions	16	12,080		10,140		7,842
Total current liabilities		93,555	25.4%	112,879	29.0%	97,727
Non-current debt	13	62,812		65,733		67,760
Non-current provisions	16	47		54		57
Employee benefit plan liabilities	17	11,307		8,438		5,546
Deferred tax liabilities	12	–		1,137		1,142
Total non-current liabilities		74,166	20.2%	75,362	19.3%	74,505
Total liabilities		167,721	45.6%	188,241	48.3%	172,232
Capital stock	28	7,760		7,754		7,745
Additional paid-in capital		18,496		29,303		37,576
Retained earnings		197,758		186,748		151,556
Foreign currency translation differences		(23,976)		(22,257)		(24,938)
Total equity attributable to shareholders of Comet Holding AG		200,038	54.4%	201,548	51.7%	171,939
Total liabilities and shareholders' equity		367,759	100.0%	389,789	100.0%	344,171

¹ Restated for IFRS 15 (see note 2.1).

Consolidated statement of income

In thousands of CHF	Note	2018	%	2017 restated ¹	%
Net sales	3/4	436,356		443,370	
Cost of sales		(265,914)		(262,495)	
Gross profit		170,442	39.1%	180,875	40.8%
Other operating income	18	4,201	1.0%	4,093	0.9%
Development expenses	20	(53,882)	-12.3%	(47,102)	-10.6%
Marketing and selling expenses		(63,251)	-14.5%	(57,006)	-12.9%
General and administrative expenses		(32,953)	-7.6%	(30,123)	-6.8%
Loss on disposal of businesses	21	(6,595)	-1.5%	-	0.0%
Operating income		17,962	4.1%	50,737	11.4%
Financing expenses	23	(9,387)	-2.2%	(6,971)	-1.6%
Financing income	23	6,562	1.5%	6,086	1.4%
Income before tax		15,137	3.5%	49,852	11.2%
Income tax	12	(2,858)	-0.7%	(14,516)	-3.3%
Net income		12,279	2.8%	35,336	8.0%
Earnings per share in CHF, diluted and basic	24	1.58		4.56	
Operating income		17,962	4.1%	50,737	11.4%
Amortization	11/22	10,655	2.4%	4,392	1.0%
EBITA		28,617	6.6%	55,129	12.4%
Depreciation	11/22	9,176	2.1%	8,074	1.8%
EBITDA		37,793	8.7%	63,203	14.3%

¹ Restated for IFRS 15 (see note 2.1).

Consolidated statement of comprehensive income

In thousands of CHF	Note	2018	2017 restated ¹
Net income		12,279	35,336
Other comprehensive income			
Foreign currency translation differences		(1,719)	2,679
Total items that will be reclassified to the income statement on realization		(1,719)	2,679
Actuarial losses on defined benefit plans	17	(913)	(17)
Income tax	12	132	(2)
Total items that will not subsequently be reclassified to the income statement		(781)	(19)
Total other comprehensive income		(2,500)	2,660
Total comprehensive income		9,779	37,996

¹ Restated for IFRS 15 (see note 2.1).

Consolidated statement of cash flows

In thousands of CHF	Note	2018	2017 restated ¹
Net income		12,279	35,336
Income tax	12	2,858	14,516
Depreciation, amortization and impairment	9/10/11	19,831	12,465
Net interest expense	23	860	1,310
Share-based payments	29	340	916
Losses on disposal of property, plant and equipment		172	59
Losses on disposal of intangible assets		10	–
Loss on disposal of businesses	21	6,595	–
Other non-cash expense/(income)		3,125	2,537
Change in provisions	16	2,262	2,211
Change in other working capital		(20,025)	(12,188)
Interest received		30	14
Taxes paid		(5,845)	(18,823)
Net cash provided by operating activities		22,493	38,353
Outflow from disposal of businesses		(293)	–
Purchases of property, plant and equipment	9	(26,020)	(37,554)
Purchases of intangible assets	10	(1,933)	(3,953)
Disposals of property, plant and equipment	9	242	1,285
Disposals of intangible assets	10	1,039	–
Disposals of other financial assets		35	–
Net cash used in investing activities		(26,930)	(40,221)
Repayment of borrowings	13	(136)	(2,656)
Interest paid		(806)	(1,247)
Distribution to shareholders of Comet Holding AG		(11,630)	(9,295)
Net cash used in financing activities		(12,572)	(13,197)
Net (decrease) in cash and cash equivalents		(17,008)	(15,065)
Foreign currency translation differences on cash and cash equivalents		(404)	652
Cash and cash equivalents at January 1		60,420	74,832
Net cash and cash equivalents at December 31		43,007	60,420

¹ Restated for IFRS 15 (see note 2.1).

Consolidated statement of changes in equity

In thousands of CHF	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, 2016	7,745	37,576	156,033	(25,009)	176,345
Restatement ¹			(4,477)	71	(4,406)
January 1, 2017 restated¹	7,745	37,576	151,556	(24,938)	171,939
Net income ¹			35,336		35,336
Other comprehensive income ¹			(19)	2,679	2,660
Total comprehensive income¹			35,317	2,679	37,996
Distribution to shareholders of Comet Holding AG		(9,295)			(9,295)
Increase in capital (for stock compensation)	8	1,022	(1,005)		26
Share-based payments			880		880
December 31, 2017 restated¹	7,754	29,303	186,748	(22,257)	201,548
Net income			12,279		12,279
Other comprehensive income			(781)	(1,719)	(2,500)
Total comprehensive income			11,498	(1,719)	9,779
Distribution to shareholders of Comet Holding AG		(11,630)			(11,630)
Increase in capital (for stock compensation)	6	823	(909)		(80)
Share-based payments			421		421
December 31, 2018	7,760	18,496	197,758	(23,976)	200,038

¹ Restated for IFRS 15 (see note 2.1).

Notes to the consolidated financial statements

01	Nature of the business activities	<p>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 for security applications at airports. Under the ebeam brand, the Group develops and markets compact ebeam sets for the treatment of surfaces in the food and printing industries.</p>
02	Accounting policies	<p>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 except as specifically stated below. The significant accounting policies applied are unchanged from the prior year except as set out below.</p>
02.1	Changes in accounting policies	<p>Revised and new accounting rules</p> <p>With effect from January 1, 2018, Comet has applied the following new or revised IFRS/IAS for the first time:</p> <ul style="list-style-type: none"> ■ IFRS 2 – Amendment – Classification and Measurement of Share-based Payment Transactions ■ IFRS 9 – Financial Instruments ■ IFRS 15 – Revenue from Contracts with Customers ■ IFRIC 22 – Foreign Currency Transactions and Advance Consideration ■ Annual Improvements to IFRS Standards, 2014–2016 Cycle <p>Except as described below, the first-time application of the above new or amended standards and interpretations had no effect on Comet's financial position, results of operations and cash flows.</p> <p>IFRS 15 – Revenue from Contracts with Customers</p> <p>IFRS 15 supersedes IAS 11, Construction Contracts, IAS 18, Revenue, and the associated interpretations, and provides accounting guidance for all sales revenue from contracts with customers. It excludes contracts that are within the scope of other IFRS standards. The new standard establishes a five-step model for the recognition of revenue from contracts with customers. Companies must exercise judgment in considering the contract terms and all relevant facts and circumstances (including implied contract terms). Comet has elected to use the full retrospective approach for the implementation of IFRS 15.</p>

The application of IFRS 15 has the following impact on items of the consolidated balance sheet:

In thousands of CHF		January 1, 2017			December 31, 2017		
	Note	Reported	Adjustment	Restated	Reported	Adjustment	Restated
Assets							
Trade and other receivables	a	60,893	(13,021)	47,872	76,677	(12,103)	64,574
Inventories	a	81,473	10,899	92,372	93,910	8,915	102,825
Prepaid expenses		2,651	1,133	3,784	3,410	1,145	4,555
<i>Of which contract costs</i>	c	–	1,133	1,133	–	1,145	1,145
Deferred tax assets		8,068	252	8,320	7,218	318	7,536
Other assets, not affected by IFRS 15		191 823	–	191 823	210 299	–	210 299
Total assets		344,908	(737)	344,171	391,515	(1,726)	389,789
Liabilities							
Trade and other payables		58,153	(27,637)	30,516	66,667	(24,122)	42,545
<i>Of which prepayments by customers</i>	b	28,770	(28,770)	–	25,267	(25,267)	–
<i>Of which sales commissions</i>	c	3,099	1,133	4,232	3,529	1,145	4,674
Contract liabilities	a, b	–	33,063	33,063	–	29,171	29,171
Deferred tax liabilities		2,899	(1,757)	1,142	3,030	(1,893)	1,137
Other liabilities, not affected by IFRS 15		107 511	–	107 511	115 388	–	115 388
Total liabilities		168,563	3,669	172,232	185,085	3,156	188,241
Equity							
Retained earnings		156,033	(4,477)	151,556	191,350	(4,602)	186,748
Foreign currency translation differences		(25,009)	71	(24,938)	(21,977)	(280)	(22,257)
Other equity, not affected by IFRS 15		45 321	–	45 321	37 057	–	37 057
Total equity		176,345	(4,406)	171,939	206,430	(4,882)	201,548

The application of IFRS 15 has the following impact on items of the consolidated statement of income:

In thousands of CHF		Year to December 31, 2017		
	Note	Reported	Adjustment	Restated
Net sales	a)	438,355	5,015	443,370
Cost of sales	a)	(257,943)	(4,552)	(262,495)
Gross profit		180,412	463	180,875
Other operating income	a)	6,580	(2,487)	4,093
Development expenses	a)	(48,967)	1,865	(47,102)
Marketing and selling expenses		(57,006)	–	(57,006)
General and administrative expenses		(30,123)	–	(30,123)
Operating income		50,896	(159)	50,737
Financing expenses		(6,971)	–	(6,971)
Financing income		6,086	–	6,086
Income before tax		50,011	(159)	49,852
Income tax		(14,551)	35	(14,516)
Net income		35,460	(124)	35,336

The changes resulting from IFRS 15 had no material impact on other comprehensive income. The impacts on the consolidated statement of cash flows were related only to the changes in net income and corresponding deferred taxes and the change in working capital. The cash flows from investing and financing activities were not affected.

The impacts on the consolidated balance sheet and statement of income are described below:

a) Revenue from contracts with customers

Sale of products

Revenue from the sale of products (including spare parts) 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. Generally, the customer acquires control at delivery of the product or spare part. This applies to the PCT and IXT divisions and the engineering business of the EBT division. Here the adoption of IFRS 15 thus had no impact on the amount and timing of revenue recognition.

Sale of systems

In the systems business, customers are supplied with comprehensive and sometimes complex systems. Besides this equipment itself, the segment also provides services such as installation and complete integration into customers' processes. Under the new accounting standard these services are no longer regarded as separable, as they form an integral part of the delivery. Revenue from the sale of systems is thus 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 when the customer has taken delivery of and accepted the system. This applies to the IXS division and the systems business of the EBT division. In the case of systems already delivered (with the risks and rewards thus having passed to the customer) for which there was not yet a certificate of acceptance, revenue and the related sales have been retrospectively restated.

Sale of services

Comet provides services related to products and systems. Warranty obligations that provide 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. The treatment of warranty obligations did not result in a change in the amount or timing of revenue recognition. Revenue from other services such as repair or training continues to be recognized at a specific point in time as before.

Sale of prototypes

Income from customers for research and development services is evaluated differently under IFRS 15 than before. After the delivery of the first prototype, further income received for research and development services is now classified as derived from the sale of prototypes and is reported as revenue.

b) Advance payments by customers and contract liabilities

Prepayments by customers were reclassified to contract liabilities.

c) Contract costs and sales commissions

Under IFRS 15, the sales commissions owed for agent activities are recognized at contract inception. As these represent incremental costs directly attributable to obtaining a contract, they are capitalized 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 or systems to the customer.

IFRS 9 – Financial Instruments

IFRS 9 introduced new guidance for the classification and measurement of financial assets and liabilities, the recognition of impairment losses, and hedge accounting. Comet applies IFRS 9 prospectively, with the comparative information continuing to be reported in accordance with IAS 39. At January 1, 2018 there were no available-for-sale financial assets, held-to-maturity investments, or financial instruments at fair value through other comprehensive income. The financial assets and liabilities previously classified as at fair value through profit or loss continue to meet the criteria of this category. The other financial instruments are measured at amortized cost as before. Consequently, the classification of financial instruments to the appropriate categories under IFRS 9 had no effect on the accounting treatment of assets and liabilities.

Under IFRS 9 the impairment of financial assets – including, specifically, trade receivables measured at amortized cost – is now assessed using an expected credit loss model. This change did not have any material impacts on Comet's financial assets.

02.2 New accounting rules becoming effective in subsequent periods

Standard	Expected impact	Effective date	Planned adoption by Comet
Annual Improvements to IFRS Standards, 2015–2017 Cycle	(1)	Jan. 1, 2019	Fiscal year 2019
IAS 19 – Amendment – Plan Amendment, Curtailment or Settlement	(1)	Jan. 1, 2019	Fiscal year 2019
IFRS 16 – Leases	(2)	Jan. 1, 2019	Fiscal year 2019
IFRIC 23 – Uncertainty over Income Tax Treatments	(1)	Jan. 1, 2019	Fiscal year 2019

- (1) Expected to have no, or no significant, impact on the financial position, results of operations and cash flows.
- (2) From January 1, 2019, Comet will apply IFRS 16, Leases, for the first time. The full retrospective method was chosen for the implementation of this standard. Under the new guidance, lessees will be 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 right-of-use asset is depreciated over the shorter of the term of the lease or the expected useful life. The lease payments are incurred for the right to use the leased asset over the term of the lease. Comet is affected by the new accounting guidance especially in its existing rental agreements for the use of buildings and in its vehicle leases. The following impacts arise for Comet:
- Total assets and liabilities at January 1, 2018 are increased due to the capitalization of the right-of-use assets within a range of about CHF 15 million to CHF 19 million and the recognition of the corresponding lease liabilities in a range of CHF 17 million to CHF 21 million, with a corresponding reduction in the equity ratio by between 2.0 and 3.0 percentage points.
 - EBITDA for 2018 will improve by the amount of the eliminated operating lease expenses, i.e., the EBITDA margin will increase by between 1.0 and 1.5 percentage points. The EBIT margin and net income are expected to improve immaterially.

The contractual lease liabilities which did not previously require recognition in the balance sheet are already disclosed now, in note 25.2.

02.3 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 10 and 11): 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 16) are, by definition, liabilities of uncertain amount. Future events can thus lead to adjustments that affect income.
- Deferred tax assets (see note 12) 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 17): 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 effect of the most important parameters on the net present value of the obligation is presented in note 17.

02.4 Consolidation

02.4.1 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 %	
		2018	2017
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%

02.4.2 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:

Country or region		Closing rate		Average rate	
		Dec. 31, 2018	Dec. 31, 2017	2018	2017
USA	USD	1	0.985	0.978	0.985
Eurozone	EUR	1	1.126	1.155	1.112
China	CNY	1	0.143	0.148	0.146
Japan	JPY	100	0.894	0.886	0.878
Denmark	DKK	1	0.151	0.155	0.149
Republic of Korea	KRW	1,000	0.885	0.889	0.871

02.5 Measurement and recognition policies

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.

Revenue recognition (sales and other income)

Net sales represent the revenue from the sale of products and services to third parties, net of rebates and other price reductions. Revenue is recognized at the time that control of the products and services has passed to the customer, in the amount of the consideration to which Comet is expected to be entitled in exchange for the products or services. Depending on the product and the agreed shipment terms, control is transferred to the customer at the time of shipment (Incoterms) or only at the time of acceptance by the customer. In the case of warranty obligations that provide an additional service to the customer (service-type warranties), the revenue associated with them is recognized over time, based on the passage of time. Revenue from other services such as repair or training is recognized at the time of satisfaction of the performance obligation.

Customer contributions to development projects, including 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.

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.

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. 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” below). 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.

Leases

Leases of property, plant and equipment that transfer substantially all risks and rewards of ownership to Group companies are classified as finance leases. For assets acquired under finance leases, the lower of the fair value of the asset and the net present value of future non-cancelable lease payments is recognized as a non-current asset. Assets held under finance leases are depreciated over the shorter of their estimated useful life and the term of the lease. Service contracts (particularly outsourcing agreements) involving direct or indirect provisions on the use of specified assets are reviewed at inception as to whether the arrangements contain a lease under IFRS.

Payments under operating leases are recorded as operating expenditure and recognized on a straight-line basis in profit or loss over the periods to which they relate.

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 under construction 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.

03 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	
	2018	2017 ¹	2018	2017 ¹	2018	2017 ¹	2018	2017 ¹	2018	2017 ¹
	Sales by region									
Europe	8,947	7,808	35,661	41,176	29,431	26,396	13,979	18,199	88,018	93,579
USA	165,224	162,290	15,167	19,647	23,526	19,780	3,422	5,900	207,338	207,617
Asia	37,925	42,648	70,981	65,895	13,978	13,274	1,866	5,031	124,751	126,848
Rest of world	101	204	13,501	12,527	1,984	2,279	663	316	16,249	15,326
Total	212,197	212,950	135,310	139,245	68,919	61,729	19,930	29,446	436,356	443,370

¹ Restated for IFRS 15 (see note 2.1).

Sales by market

In thousands of CHF	2018	2017 ¹
PCT		
Semiconductor	187,417	187,579
Flat panel	8,741	6,552
Others	16,039	18,819
Total PCT	212,197	212,950
IXS		
Automotive	55,955	63,685
Electronics	40,787	38,203
Science & New materials	17,527	16,922
Aerospace	14,395	16,110
Others	6,646	4,325
Total IXS	135,310	139,245
IXM		
Non-destructive testing	47,210	39,260
Security	11,371	14,136
Others	10,338	8,333
Total IXM	68,919	61,729
Total EBT	19,930	29,446
Total net sales	436,356	443,370

¹ Restated for IFRS 15 (see note 2.1).

The aggregate amount of the transaction prices allocated to performance obligations that were unsatisfied or partly unsatisfied at December 31, 2018 was 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. Comet is making use of the practical expedient available for the initial application of IFRS 15 regarding the disclosure of remaining performance obligations.

Contract balances

Opening and closing balances of receivables, contract assets and contract liabilities from contracts with customers are presented in the balance sheet and in note 5. 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 2018 from contract liabilities that existed at the beginning of the period amounted to CHF 22.6 million (prior year: CHF 26.8 million).

Material changes in contract balances result from the receipt of customer payments and the invoicing of satisfied performance obligations. The divestiture of the ebeam systems business in Davenport, Iowa, USA, caused a reduction of CHF 5.0 million in contract liabilities. Further details are disclosed in note 21.

04 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 services for non-destructive examination using x-ray and micro-focus 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 airport 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 current and non-current debt and all income tax assets and liabilities. These unallocated assets and liabilities are reported in the “Corporate” column.

04.1 Operating segments

Fiscal year 2018

In thousands of CHF

	Plasma Control Technologies (PCT)	X-Ray Systems (IXS)	Industrial X-Ray Modules (IXM)	ebeam Technologies (EBT)	Elimination of interseg- ment 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	38,162	(5,714)	16,073	(28,249)	278	–	20,549
Unallocated costs	–	–	–	–	–	(2,587)	(2,587)
Operating income	38,162	(5,714)	16,073	(28,249)	278	(2,587)	17,962
Financing expenses							(9,387)
Financing income							6,562
Income before tax							15,137
Income tax							(2,858)
Net income							12,279
EBITDA	41,806	(1,510)	20,039	(20,233)	278	(2,587)	37,793
EBITDA in % of sales	19.7%	–1.1%	24.7%	–101.2%			8.7%
Assets and liabilities at Dec. 31, 2018							
Segment assets	104,586	102,327	89,125	18,535	–	53,186	367,759
Segment liabilities	(24,464)	(48,793)	(19,102)	(4,961)	–	(70,400)	(167,721)
Net assets	80,122	53,534	70,023	13,574	–	(17,215)	200,038
Other segment information							
Capital expenditure	12,372	1,525	13,632	3,125	–	–	30,653
Depreciation and amortization	3,644	4,204	3,967	8,016	–	–	19,831
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

Fiscal year 2017 ¹

In thousands of CHF

	Plasma Control Technologies (PCT)	X-Ray Systems (IXS)	Industrial X-Ray Modules (IXM)	ebeam Technologies (EBT)	Elimination of interseg- ment sales	Corporate	Consolidated
Net sales							
External net sales	212,950	139,245	61,729	29,446	–	–	443,370
Intersegment sales	–	548	17,080	33	(17,661)	–	–
Total net sales	212,950	139,793	78,809	29,479	(17,661)	–	443,370
Earnings							
Segment operating income	52,541	4,615	14,401	(18,411)	(743)	–	52,403
Unallocated costs	–	–	–	–	–	(1,666)	(1,666)
Operating income	52,541	4,615	14,401	(18,411)	(743)	(1,666)	50,737
Financing expenses							(6,971)
Financing income							6,086
Income before tax							49,852
Income tax							(14,516)
Net income							35,336
EBITDA	55,676	8,179	17,963	(16,206)	(743)	(1,666)	63,203
EBITDA in % of sales	26.1%	5.9%	22.8%	–55.0%			14.3%
Assets and liabilities at Dec. 31, 2017							
Segment assets	114,755	98,139	69,141	36,587	–	71,167	389,789
Segment liabilities	(31,788)	(48,731)	(20,614)	(13,682)	–	(73,426)	(188,241)
Net assets	82,967	49,408	48,527	22,905	–	(2,259)	201,548
Other segment information							
Capital expenditure	20,803	3,968	12,472	4,264	–	–	41,507
Depreciation and amortization	3,135	3,563	3,563	2,205	–	–	12,466
Change in provisions	2,221	(645)	(185)	940	–	(118)	2,213
Other non-cash expense/(income)	997	192	1,522	564	(85)	(653)	2,537
Number of employees at year end	549	433	302	151	–	–	1,435

¹ Restated for IFRS 15 (see note 2.1).

Reconciliation of aggregate segment assets and liabilities to consolidated results

In thousands of CHF	2018	2017 ¹
Operating segments' assets	314,573	318,621
Total cash and cash equivalents	43,007	60,420
Derivatives used for foreign exchange hedging	26	277
Tax receivables	2,893	2,660
Deferred tax assets	7,063	7,536
Comet Holding AG's receivables from third parties	196	275
Total assets	367,759	389,789
Operating segments' liabilities	(97,321)	(114,814)
Current and non-current debt	(67,812)	(67,865)
Derivatives used for foreign exchange hedging	(379)	(2)
Tax payables	(870)	(3,131)
Deferred tax liabilities	–	(1,137)
Comet Holding AG's payables to third parties	(1,339)	(1,292)
Total liabilities	(167,721)	(188,241)

¹ Restated for IFRS 15 (see note 2.1).

04.2 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	2018	2017 ¹
Switzerland	3,208	2,788
Germany	36,726	34,227
Rest of Europe	48,084	56,564
Total Europe	88,018	93,579
Total USA	207,338	207,617
China	57,749	64,080
Japan	22,365	23,814
Rest of Asia	44,637	38,954
Total Asia	124,751	126,848
Rest of world	16,249	15,326
Total	436,356	443,370

¹ Restated for IFRS 15 (see note 2.1).

Property, plant, and equipment and intangible assets by region

In thousands of CHF	2018	2017
Switzerland	114,978	94,950
Germany	31,733	36,220
USA	5,423	13,178
Rest of world	2,284	2,355
Total	154,418	146,703

04.3 Sales with key accounts

In the year under review, the Plasma Control Technologies division recorded sales of CHF 115 million with its largest customer, which represented 26.4% of Group sales (prior year: CHF 120 million and 27.3%).

05 Trade and other receivables

In thousands of CHF	2018	2017 ¹
Trade receivables, gross	53,996	57,021
Impairment of trade receivables	(614)	(1,104)
Trade receivables, net	53,382	55,917
Refundable sales taxes and value-added taxes	2,648	3,785
Prepayments to suppliers	5,552	3,375
Contract assets	887	–
Sundry receivables	1,474	1,497
Total other receivables	10,561	8,657
Total trade and other receivables	63,943	64,574

¹ Restated for IFRS 15 (see note 2.1).

At January 1, 2017, the beginning of the prior year, net trade receivables were CHF 43.3 million; there were no contract assets. The divestiture of the ebeam systems business in Davenport had a negative effect of CHF 1.1 million on trade receivables. Further details are disclosed in note 21.

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

In thousands of CHF	2018	2017
January 1	1,104	1,018
Added	95	230
Released	(562)	(180)
Foreign currency translation differences	(23)	36
December 31	614	1,104

At the balance sheet date, complete impairment was recognized on CHF 0.5 million (prior year: CHF 0.5 million) of trade receivables. Within the item "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.

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	Net carrying amount Dec. 31, 2017 ¹
Trade receivables		53,996	614	53,382	55,917
Not past due	0.1%	46,892	68	46,824	50,390
Over 30 days past due, impairment recognized	0.3%	5,004	16	4,988	2,424
Over 60 days past due, impairment recognized	0.5%	575	3	572	1,304
Over 90 days past due, impairment recognized	1.1%	409	4	405	505
Over 120 days past due, impairment recognized	1.5%	212	3	209	251
Over 150 days past due, impairment recognized	57.4% ²	905	519	386	1,043

¹ Restated for IFRS 15 (see note 2.1).

² Includes individual impairment allowances.

06 Other financial assets and liabilities

06.1 Other financial assets

In thousands of CHF	2018	2017
Other financial assets at fair value through profit or loss		
Derivatives used for foreign exchange hedging	26	277
Total other financial assets at fair value through profit or loss	26	277
Other financial assets at amortized cost		
Other non-current financial assets	209	239
Total other financial assets at amortized cost	209	239
Total other financial assets	235	516
Total current	26	277
Total non-current	209	239

06.2 Other financial liabilities

In thousands of CHF	2018	2017
Other financial liabilities at fair value through profit or loss		
Derivatives used for foreign exchange hedging	379	2
Total other financial liabilities at fair value through profit or loss	379	2

06.3 Derivative financial instruments

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

In thousands of CHF	2018	2017
USD forward exchange contracts		
Contract amounts	21,763	17,860
Positive fair values	26	228
Negative fair values	284	2
JPY forward exchange contracts		
Contract amounts	2,197	2,549
Positive fair values	–	49
Negative fair values	79	–
CNY forward exchange contracts		
Contract amounts	858	–
Positive fair values	–	–
Negative fair values	16	–

The gains and losses from foreign exchange contracts are recognized as financing income or expense (see note 26). 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.

07 Inventories

In thousands of CHF	2018	2017 ¹
Raw materials and semi-finished products	45,495	42,242
Work in process	14,470	21,023
Finished goods	31,125	39,560
Total inventories	91,090	102,825

¹ Restated for IFRS 15 (see note 2.1).

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 5.5 million (prior year: CHF 5.3 million).

The divestiture of the ebeam systems business in Davenport caused a reduction of CHF 10.5 million in inventories. Further details are disclosed in note 21.

08 Prepaid expenses

In thousands of CHF	2018	2017 ¹
Contract costs	1,629	1,145
Other prepaid expenses	3,480	3,410
Total prepaid expenses	5,109	4,555

¹ Restated for IFRS 15 (see note 2.1).

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 3.6 million were recognized in the income statement (prior year: CHF 4.0 million).

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

09 Property, plant and equipment

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
Impairments	–	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

The disposals of other tangible assets included the reclassification of CHF 0.5 million (prior year: CHF 0.2 million) of internally produced demonstration equipment to inventories, which did not result in an outflow of funds. There were no leased assets (under finance leases) within property, plant and equipment (prior year: CHF 0.2 million).

The assets under construction related largely to improvements of (i.e., finishing-work on) the building expansion in Flamatt. For the building expansion, completed at the end of 2018, and for the improvements to it, interest of CHF 0.6 million was capitalized (prior year: CHF 0.4 million). The interest rate used is the effective interest rate of the bond (see note 13).

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 details on the Davenport divestiture are given in notes 11.1 and 21.

Fiscal year 2017

In thousands of CHF	Real estate	Plant and equipment	Other tangible assets	Assets under construction	Total property, plant and equipment
Cost					
January 1, 2017	51,589	71,307	15,790	14,077	152,763
Additions	–	4,233	2,805	30,516	37,554
Commissioning of assets under construction	–	1,631	1,816	(3,447)	–
Disposals	–	(448)	(1,806)	–	(2,254)
Foreign currency translation differences	48	205	304	54	611
December 31, 2017	51,637	76,928	18,909	41,200	188,674
Accumulated depreciation					
January 1, 2017	23,425	52,785	9,650	–	85,861
Additions	1,549	4,407	2,118	–	8,074
Disposals	–	(316)	(437)	–	(753)
Foreign currency translation differences	24	144	270	–	437
December 31, 2017	24,998	57,020	11,601	–	93,618
Carrying amount					
January 1, 2017	28,164	18,521	6,140	14,077	66,902
December 31, 2017	26,639	19,908	7,309	41,200	95,056

Assets pledged or assigned as collateral for Group obligations (encumbered assets)

At December 31, 2018, all real estate liens (mortgage notes in the amount of CHF 30.0 million) were held within the Group. In the prior year, the carrying amount of pledged real estate was CHF 63.2 million, of which CHF 24.0 million was pledged as collateral for Group obligations for CHF 8.0 million of loan amounts drawn.

10 Intangible assets

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
Impairments	–	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 divestiture of the ebeam systems business in Davenport 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 details on the Davenport divestiture are given in notes 11.1 and 21.

Fiscal year 2017

In thousands of CHF	Goodwill and trademarks	Customer lists	Technology	Software	Other intangible assets	Total intangible assets
Cost						
January 1, 2017	27,374	27,863	4,694	17,686	230	77,847
Additions	–	–	–	3,953	–	3,953
Foreign currency translation differences	1,855	962	59	535	(6)	3,405
December 31, 2017	29,229	28,825	4,753	22,174	224	85,205
Accumulated amortization						
January 1, 2017	0	16,809	1,492	9,794	50	28,144
Additions	–	1,584	468	1,896	14	3,962
Impairments	–	–	–	429	–	429
Foreign currency translation differences	–	806	81	134	1	1,022
December 31, 2017	0	19,199	2,041	12,253	65	33,558
Carrying amount						
January 1, 2017	27,374	11,054	3,203	7,892	180	49,703
December 31, 2017	29,229	9,626	2,712	9,921	159	51,647

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 six 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.

11 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, 2018. 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 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 2019 to 2021. 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% to 1.8%, 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	
	2018	2017	2018	2017	2018	2017
In thousands of CHF						
Goodwill	19,287	20,018	6,873	6,873	26,160	26,891
Trademarks (Yxlon)	2,253	2,338	0	0	2,253	2,338
Total carrying amount	21,540	22,356	6,873	6,873	28,412	29,229

Assumptions applied in the valuation model

	X-Ray Systems (IXS) CGU		Industrial X-Ray Technology (IXT) CGU	
	2018	2017	2018	2017
Discount rate (WACC) before tax	12.2%	11.4%	12.8%	12.8%
Growth rate of terminal value	1.8%	1.5%	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 (2019 to 2021):

- Growth assumptions: Sales revenue is projected by product group and region. Based on the stable situation of 2018 as the starting point, the average annual rate of sales growth is assumed to be 6% for IXS (prior year: 5%) and 9% for IXT (prior year: 6%).
- Gross margins: It is expected that with rising sales, gross margins in the medium term will average approximately 38% for IXS (prior year: 44%) and 50% for IXT (prior year: 42%). 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 2018 exchange rates.
- Discount rate (WACC): The capital costs were determined based on borrowing costs (before tax) as well as the long-term risk-free rate, a small-cap premium, and a market risk premium weighted by a Comet-specific beta factor.

Comet believes that, with a realistic change in the material assumptions, the recoverable amount would not fall below the carrying amount.

11.1 Impairment in EBS business

For the ebeam systems business (EBS, part of the EBT division), at the end of the first half of 2018 there were indications of asset impairment due to lower profitability projections, and an impairment test was therefore performed at June 30, 2018.

The impairment test showed the need for an impairment charge on the assets of the EBS CGU. The impairment test is based on the value in use method. The recoverable amount was determined from the present value of the future cash flows (DCF valuation), using a pre-tax discount rate (WACC) of 11.8%. 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 expense of CHF 6.1 million represents the write-down of certain property, plant and equipment and intangible assets in the EBS business to their recoverable amount. The expense is disclosed in the statement of income 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 at November 12, 2018, which gave rise to additional losses. Further detail is provided in note 21.

12 Income tax

12.1 Current and deferred income tax expense

In thousands of CHF	2018	2017 ¹
Current income tax expense in respect of the current year	3,219	13,522
Current income tax expense in respect of prior years	194	401
Deferred income tax (credit)/expense	(555)	593
Total income tax expense	2,858	14,516

¹ Restated for IFRS 15 (see note 2.1).

12.2 Reconciliation of tax expense

In thousands of CHF	2018	2017 ¹
Income before tax	15,137	49,852
Expected income tax at base tax rate of 24% (prior year: 28%)	3,633	13,959
Effect of tax rates other than base tax rate	52	168
Effect of tax relief from canton of Fribourg	(520)	(1,568)
Effect of non-tax-deductible expenses	423	661
Effect of change in tax rate on deferred income tax	(29)	1,348
Recognition and offset of tax loss carry-forwards not recognized in prior years	(675)	–
Effect of non-recognition of tax loss carryforwards	–	208
Effect of credits for R&D and domestic manufacturing	–	(846)
Effect of income tax from other periods	(194)	401
Effect of non-refundable withholding tax	193	111
Other effects	(24)	74
Income tax reported in the income statement	2,858	14,516
Effective income tax rate in % of income before tax	18.9%	29.1%

¹ Restated for IFRS 15 (see note 2.1).

The Tax Cuts and Jobs Act for tax reform passed in the United States in December 2017 resulted in a reduction in Comet's expected corporate tax rate from 28% in 2017 to 24% in 2018.

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 2018 the tax reduction amounted to 50% (prior year: 50%).

12.3 Deferred tax assets and liabilities

Deferred tax assets and liabilities can be analyzed as follows:

In thousands of CHF	2018		2017 ¹	
	Assets	Liabilities	Assets	Liabilities
Financial instruments	39	6	35	78
Receivables	979	133	4,392	248
Inventories	3,832	1,064	5,223	3,305
Property, plant and equipment	279	628	303	715
Intangible assets	1	3,274	–	4,076
Trade and other payables	418	184	1,375	7
Accrued expenses	429	52	961	3
Provisions	1,020	1	920	2
Employee benefit plan liabilities	1,364	–	940	–
Tax loss carryforwards, and tax credits for R&D and domestic manufacturing	4,046		684	
Total gross deferred tax of Group companies	12,406	5,343	14,833	8,434
Netting of deferred tax by Group companies	(5,343)	(5,343)	(7,297)	(7,297)
Amounts in the consolidated balance sheet	7,063	–	7,536	1,137

¹ Restated for IFRS 15 (see note 2.1).

The deferred tax assets and liabilities were measured at local tax rates, ranging from 14% to 35%. No deferred tax liabilities were established for temporary differences of CHF 75.6 million (prior year: CHF 90.9 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. 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.

12.4 Movement in deferred tax assets and liabilities

In thousands of CHF	2018	2017 ¹
Net asset at January 1	6,399	7,177
Origination and reversal of temporary differences recognized in the income statement	(2,808)	(593)
Recognition of deferred tax assets on loss carryforwards	3,772	–
Use of tax loss carryforwards	(408)	–
Deferred tax credit in the income statement	555	(593)
Origination and reversal of temporary differences recognized in other comprehensive income	132	(2)
Foreign currency translation differences	(23)	(183)
Net asset at December 31	7,063	6,399

¹ Restated for IFRS 15 (see note 2.1).

12.5 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 (between the carrying amounts in the IFRS financial statements and the corresponding tax base) for which no tax assets were recognized were nil (prior year: nil).

At the balance sheet date of December 31, 2018, tax loss carryforwards stood at CHF 13.0 million (prior year: nil). Including tax credits for R&D and domestic manufacturing, the resulting deferred tax assets were CHF 4.0 million (prior year: CHF 0.7 million). The existing loss carryforwards can be carried forward indefinitely.

In the year under review there were no unrecognized deferred tax assets from tax loss carryforwards (prior year: loss carryforwards of CHF 3.3 million with a potential tax effect of CHF 0.7 million).

13 Current and non-current 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 45.6 million (prior year: CHF 41.2 million).

13.1 Non-current debt

The non-current debt consisted of the five-year bond maturing in 2021 and of bank loans. In the year under review, all interest and principal payments were made as contractually agreed.

In thousands of CHF	2018	2017
Repayment due in two to five years	63,000	66,000
Repayment due in more than five years	–	–
Subtotal	63,000	66,000
Future amortization of costs	(188)	(267)
Total non-current debt	62,812	65,733

All non-current debt represented fixed-rate debt instruments denominated in CHF and having fixed maturities. Loans with original maturities of more than twelve months coming due in the subsequent year were reclassified to current debt.

13.2 Finance lease obligations

At December 31, 2018, there were no liabilities under finance leases (prior year: CHF 0.1 million).

13.3 Movement in current and non-current debt**Fiscal year 2018**

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 interest-bearing loans and borrowings (excluding items listed below)	2,000	–	3,000	–	–	5,000
Current obligations under finance leases	132	(136)	–	4	–	–
Non-current interest-bearing loans and borrowings (excluding items listed below)	65,733	–	(3,000)	79	0	62,812
Total liabilities from financing activities	67,864	(136)	–	83	0	67,812

Fiscal year 2017

In thousands of CHF	Jan. 1, 2017	Cash flows	Reclassif. from non-current to current	Unwinding of discount, and remeasurement	Foreign currency translation differences	Dec. 31, 2017
Current interest-bearing loans and borrowings (excluding items listed below)	2,500	(2,500)	2,000	–	–	2,000
Current obligations under finance leases	166	(156)	105	15	2	132
Non-current interest-bearing loans and borrowings (excluding items listed below)	67,655	–	(2,000)	78	0	65,733
Non-current obligations under finance leases and hire purchase contracts	105	–	(105)	–	–	–
Total liabilities from financing activities	70,426	(2,656)	–	93	2	67,864

14 Trade and other payables

In thousands of CHF	2018	2017 ¹
Trade payables	23,971	32,089
Sundry payables	4,406	4,933
Sales commissions	4,614	4,674
Total financial liabilities	32,991	41,696
Sales tax and value-added tax	1,928	849
Total other payables	1,928	849
Total trade and other payables	34,919	42,545

¹ Restated for IFRS 15 (see note 2.1).

The divestiture of the ebeam systems business in Davenport had the effect of a CHF 0.2 million reduction in trade payables. Further details are disclosed in note 21.

15 Accrued expenses

In thousands of CHF	2018	2017
Accrued staff costs	6,602	14,764
Other accrued expenses	13,715	10,994
Total accrued expenses	20,316	25,758

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.

16 Provisions**Fiscal year 2018**

In thousands of CHF	Warranties	Other provisions	Total provisions
January 1, 2018	7,814	2,380	10,194
Added	5,408	3,067	8,475
Used	(3,222)	(892)	(4,114)
Released	(2,308)	(10)	(2,318)
Foreign currency translation differences	(46)	(64)	(110)
December 31, 2018	7,646	4,481	12,127
Of which:			
January 1, 2018			
Current provisions	7,814	2,326	10,140
Non-current provisions	–	54	54
December 31, 2018			
Current provisions	7,646	4,434	12,080
Non-current provisions	–	47	47

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. The divestiture of the ebeam systems business in Davenport had the effect of a reduction of CHF 0.2 million in warranty provisions. Further details are disclosed in note 21.

In the prior year, 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. For the related expenses estimated to be incurred, CHF 1.1 million (prior year: CHF 1.5 million) is held in the item "other provisions".

The additions to other provisions in the fiscal year related largely to the reorganization of the IXS division.

17 Employee benefits

17.1 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 is the supplemental plan with effect from January 1, 2019. 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. As the base plan is managed under a fully insured model, all investment risk is carried by the pension fund, or ultimately by the insurer. For the supplemental plan, the investment strategy was determined by the administration committee until the change-over to the fully insured model.

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	
	2018	2017	2018	2017
Discount rate at January 1	0.6%	0.6%	1.5%	1.5%
Discount rate at December 31	0.7%	0.6%	1.6%	1.5%
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 2005 GT

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

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 loss 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)

The average duration of the defined benefit obligation was 11.6 years.

For the defined benefit plans in Switzerland, the board of directors of the pension fund (a foundation) has decided to reduce the pension conversion rates from the year 2021. This plan amendment leads to a negative past service cost (i.e., it results in income) and a corresponding reduction in the defined benefit obligation. The positive pre-tax effect of CHF 0.6 million is distributed across the 2018 operating income of the divisions as follows: PCT, CHF 0.2 million; IXM, CHF 0.3 million; EBT, CHF 0.1 million.

Fiscal year 2017

In thousands of CHF

	Present value of defined benefit obligation	Fair value of plan assets	Net carrying amount recognized in balance sheet
January 1	(66,286)	61,932	(4,354)
Current service cost	(2,698)	–	(2,698)
Past service cost	(2,543)	–	(2,543)
Administration cost excl. cost of managing plan assets	(32)	–	(32)
Current service cost	(5,273)	–	(5,273)
Interest (expense)/income	(440)	406	(33)
Defined benefit cost recognized in the income statement	(5,713)	406	(5,306)
Return on plan assets, excluding interest income	–	5,182	5,182
Actuarial loss arising from experience adjustments	(5,199)	–	(5,199)
Defined benefit cost recognized in other comprehensive income	(5,199)	5,182	(17)
Benefits paid-in/deposited	(3,217)	3,251	34
Employee contributions	(1,948)	1,948	–
Employer contributions	–	2,601	2,601
Foreign currency translation differences	(174)	108	(65)
December 31	(82,536)	75,428	(7,108)
Reported as an asset			–
Reported as a liability			(7,108)

The past service cost recognized in 2017 arose from the decision to switch the defined benefit plans in Switzerland to a fully insured pension model. This switch resulted in changes in benefits; as well, revaluation reserves no longer required were distributed among the retirement accounts of the insured individuals.

The negative pre-tax effect of CHF 2.5 million was distributed among the divisions as follows in their 2017 operating income: PCT: CHF 0.9 million; IXM: CHF 1.2 million; EBT: CHF 0.4 million.

Key figures by country

In thousands of CHF	Switzerland		Germany	
	2018	2017	2018	2017
Present value of defined benefit obligation	(82,505)	(80,466)	(1,947)	(2,070)
Fair value of plan assets	73,297	74,130	1,216	1,298
Net carrying amount recognized in the balance sheet	(9,207)	(6,337)	(732)	(772)
Defined benefit cost recognized in the income statement	(3,109)	(5,295)	(11)	(11)
Defined benefit cost recognized in other comprehensive income	(913)	(38)	0	21

The employer contributions to the plans in Switzerland for fiscal year 2019 are expected to amount to CHF 2.9 million.

Major categories of plan assets			
In thousands of CHF	2018	2017	
Cash and cash equivalents	13,629	2,320	
Equity instruments	–	19,447	
Debt instruments	–	39,914	
Real estate	–	12,449	
Total plan assets at fair value (quoted market price)	13,629	74,130	
Assets from insurance contract	60,884	1,298	
Total assets without a quoted market price	60,884	1,298	
Total plan assets	74,513	75,428	

For the base plan, which is 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 "assets under an insurance contract". In the supplemental plan in 2018, Comet did not invest the plan assets directly but only through investment funds offered by insurance companies or banks. These investment products could contain equity securities or debt instruments of Comet Holding AG; however, Comet has no influence of any kind on the investment decisions of the fund managers. 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 a fully insured model with effect from January 1, 2019.

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

In thousands of CHF	2018	Switzerland		Germany	
		2017	2018	2017	2018
Discount rate: 0.25% decrease	84,964	83,187	2,011	2,140	
Discount rate: 0.25% increase	80,206	77,928	1,887	2,004	
Salaries: 0.25% decrease	82,374	80,314	1,947	2,070	
Salaries: 0.25% increase	82,637	80,617	1,947	2,070	
Life expectancy: 1-year increase	83,177	81,415	2,040	2,169	
Life expectancy: 1-year decrease	81,832	79,518	1,855	1,972	

17.2 Defined contribution plans The contributions paid to defined contribution plans in the fiscal year amounted to CHF 6.3 million (prior year: CHF 5.5 million).

17.3 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	2018	2017
Provision at January 1	1,330	1,192
Current service cost	202	161
Interest cost	12	11
Benefits paid	(137)	(104)
Actuarial (gains)/losses	(13)	29
Foreign currency translation differences	(26)	41
Provision at December 31	1,368	1,330

18 Other operating income

In thousands of CHF	2018	2017 ¹
Customers' contributions to development projects	2,136	2,674
Government grants	109	7
Income from the development of prototypes	1,508	968
Miscellaneous income	448	444
Total other operating income	4,201	4,093

¹ Restated for IFRS 15 (see note 2.1).

19 Staff costs and staff count**19.1 Staff costs**

In thousands of CHF	2018	2017
Wages and salaries	131,542	123,120
Employee benefits	21,588	22,166
Total staff costs	153,130	145,286

19.2 Staff count

	2018	2017
Number of employees (year-end)	1,346	1,435
Average full-time equivalents during the year	1,379	1,292

20 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 materials 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.

21 Loss on disposal of businesses

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 is tax-deductible. The tax effect was a reduction of CHF 1.7 million in tax expense.

22 Amortization and depreciation

In thousands of CHF	2018	2017
Amortization	5,255	3,963
Depreciation	8,510	8,074
Total amortization and depreciation	13,765	12,037
Impairment of intangible assets	5,400	429
Impairment of property, plant and equipment	666	–
Total impairment	6,066	429

Further information on the impairment charges related to the divestiture of the ebeam systems business in Davenport is provided in note 11.1.

23 Financing income and expenses

In thousands of CHF	2018	2017
Interest expense	890	1,324
Losses on derivatives used for currency hedging	1,702	335
Foreign currency translation losses	6,794	5,312
Total financing expenses	9,387	6,971

In thousands of CHF	2018	2017
Interest income	30	14
Gains on derivatives used for currency hedging	647	1,586
Foreign currency translation gains	5,885	4,486
Total financing income	6,562	6,086

In thousands of CHF	2018	2017
Net interest expense	861	1,310
Net foreign currency translation losses/(gains)	1,964	(425)

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

24 Earnings per share

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

	2018	2017 ¹
Weighted average number of shares outstanding	7,757,904	7,750,232
Net income in thousands of CHF	12,279	35,336
Net income per share in CHF, diluted and basic	1.58	4.56

¹ Restated for IFRS 15 (see note 2.1).

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

25 Off-balance sheet transactions**25.1 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. Although in the opinion of the experts involved, the situation was unlikely to change significantly in the short to medium term, it was obligatory to monitor the site regularly in recent years by means of test drilling. The groundwater testing to date has not revealed any significant deterioration in the situation. The last planned round of drilling and sampling will therefore be conducted in spring 2019. If these groundwater samples do not show a further deterioration, all monitoring activities can be terminated as of the end of 2019. The site would then not require any further monitoring and would be deleted from the register of contaminated sites. A final assessment of the matter can probably be made in the course of 2019. However, based on the results of the groundwater sampling to date, Comet believes it is currently unlikely that any significant costs will be incurred.

25.2 Other off-balance sheet obligations

In the course of its operating activities, Comet has concluded long-term rental and lease agreements resulting in payment obligations that come due as follows:

In thousands of CHF	2018	2017
Due within one year	5,021	4,461
Due within two to five years	8,361	10,135
Due in more than five years	45	–
Total payment obligations	13,427	14,596

The payment obligations arise from off-balance sheet operating leases for business premises and for road vehicles, office equipment and similar assets. The expense recognized in the fiscal year for operating leases was CHF 6.0 million (prior year: CHF 5.0 million).

26 Financial instruments

26.1 Classes of financial instruments

Fiscal year 2018

In thousands of CHF

	Financial assets		Financial liabilities		Fair value
	At fair value through profit or loss	At amortized cost	At fair value through profit or loss	At amortized cost	
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	–	(890)	
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)	(890)	

* 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 were 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 2017 ¹

In thousands of CHF

	Financial assets		Financial liabilities		Fair value
	Held for trading	Loans and receivables	Held for trading	At amortized cost	
Cash and cash equivalents		60,420			*
Trade receivables, net		55,917			*
Derivatives	277		2		276
Financial assets		239			*
Current debt				2,132	2,173
Trade and other payables				41,696	*
Non-current debt (fixed rate)				65,733	68,364
Total	277	116,576	2	109,561	
Interest income/(expense)	0	14	0	(1,324)	
Gain/(loss) on derivatives	1,585	0	(335)	0	
Change in impairment and losses on trade receivables		(50)			
Total net gain/(loss) recognized in the income statement	1,585	(36)	(335)	(1,324)	

¹ Restated for IFRS 15 (see note 2.1).

* The carrying amount approximates fair value.

26.2 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.

27 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.

27.1 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	2018	2017 ¹
Current debt	5,000	2,132
+ Non-current debt	62,812	65,733
./. Cash and cash equivalents	43,007	60,420
Net debt	24,805	7,445
EBITDA	37,793	63,203
Debt ratio (net debt in relation to EBITDA)	0.7	0.1
Shareholders' equity	200,038	201,548
Equity ratio (equity in % of total assets)	54.4%	51.7%

¹ Restated for IFRS 15 (see note 2.1).

27.2 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.

27.2.1 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 2018

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

Fiscal year 2017

In thousands of CHF	Increase in exchange rate in %	Effect on income before tax ¹	Effect on equity ¹
EUR/CHF	+10	+2,061	+2,046
USD/CHF	+10	+4,115	+1,950

¹ Restated for IFRS 15 (see note 2.1).

A reduction in exchange rates of 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. As Comet's loans and bond carry fixed rates of interest, movements in market interest rates have no short-term effect on the amounts of interest payable and hence on the income statement. 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 long-term debt based on the current interest rate situation are presented on an indicative basis in note 26.1.

27.2.2 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:

In thousands of CHF	Rating *	2018	2017	
		Balance	Rating *	Balance
Bank A	A+	23,434	A+	17,420
Bank B	AAA	42	AAA	9,025
Bank C	A	2,458	A	4,289
Bank D	N/A	16	N/A	9,554
Bank E	A-	6,157	A-	9,407
Bank F	A+	5,093	A+	5,445
Other counterparties		5,807		5,280
Total bank deposits		43,007		60,420

* 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 and payment receipts for each customer are monitored by the individual Group companies and 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 5.

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

27.2.3 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 2018

In thousands of CHF

	Carrying amount	Payments due by period			
		Total	2019	2020–2023	After 2023
Current and non-current debt	67,812	71,627	6,275	65,352	–
Financial liabilities	32,991	32,991	32,991	–	–
Derivatives (negative fair values)	379	379	379	–	–
Total	101,182	104,997	39,646	65,352	–

Fiscal year 2017 ¹

In thousands of CHF

	Carrying amount	Payments due by period			
		Total	2018	2019–2022	After 2022
Current and non-current debt	67,865	73,161	3,532	69,629	–
Financial liabilities	41,696	41,696	41,696	–	–
Derivatives (negative fair values)	2	2	2	–	–
Total	109,563	114,859	45,230	69,629	–

¹ Restated for IFRS 15 (see note 2.1).

Current and non-current debt represents both the principal amounts of these borrowings and 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 6.3.

28 Equity capital structure and shareholders

28.1 Capital stock

The capital stock at January 1, 2018 was CHF 7,753,658, divided into 7,753,658 registered shares with a par value of CHF 1.00 per share.

In fiscal year 2018 the capital stock was increased by 6,224 shares from the portion of authorized capital designated for equity-based compensation. Including the increase of 6,224 shares from this portion of authorized capital, Comet Holding AG at December 31, 2018 thus had a new total of CHF 7,759,882 of capital stock, divided into 7,759,882 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, 2018 the Board of Directors established that the capital increase from authorized capital for equity 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.

	2018		2017	
	Number of shares	Par value in CHF	Number of shares	Par value in CHF
January 1	7,753,658	7,753,658	7,745,430	7,745,430
Increase in capital from the portion of authorized capital designated for equity compensation	6,224	6,224	8,228	8,228
December 31	7,759,882	7,759,882	7,753,658	7,753,658

At the balance sheet date, Comet Holding AG held no treasury stock (prior year: none).

28.2 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 2018, in accordance with the compensation plan, the members of the Board of Directors were granted a total of 1,141 shares of stock in payment of CHF 153,750 of fixed retainers due for fiscal year 2017. In addition, as part of their compensation for 2018, the members of the Board of Directors were granted a total of 568 shares in payment of CHF 76,538 of fixed retainers due for the period from January 1, 2018 to the 2018 Annual Shareholder Meeting. The fully paid shares were applied to the retainers due at a price of CHF 134.75 per share.

Members of the Executive Committee were granted a total of 4,515 shares in payment of CHF 608,396 of profit-sharing compensation due for fiscal year 2018. The fully paid shares were applied to the compensation due at a price of CHF 134.75 per share.

As a result of these grants of a total of 6,224 shares made in 2018, the Company's unissued authorized capital for equity-based compensation showed the following movement:

	2018		2017	
	Number of shares	Par value in CHF	Number of shares	Par value in CHF
January 1	209,462	209,462	217,690	217,690
Increase in capital (awards to Board of Directors for prior term's retainer and to Executive Committee for prior year's profit-sharing compensation)	(6,224)	(6,224)	(8,228)	(8,228)
December 31	203,238	203,238	209,462	209,462

At the end of the year, the remaining unissued authorized capital for equity-based compensation was CHF 203,238, or 2.6% of the existing capital stock.

28.3 Authorized capital for other capital increases

At December 31, 2018, 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 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.

28.4 Significant shareholders

At December 31, 2018 the Company, according to disclosure notifications, had the following significant shareholders (defined for this purpose as holding 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	7.29%
Pictet Asset Management SA (Direction de Fonds)		5.07%
UBS Fund Management (Switzerland AG)		3.63%
Credit Suisse Funds AG		3.01%

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.

With an effective date of January 9, 2019, VERAISON has announced an increase in its voting rights to a share of 10.04%.

29 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 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 0.9 million). The amount included CHF 0.1 million for stock already awarded to the Board of Directors in 2018.

30 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	2018	2017
Cash compensation, including short-term employee benefits	4,064	4,206
Contributions to post-employment benefit arrangements	416	355
Expense for share-based payments	349	916
Total compensation	4,830	5,477

The 2018 expense of CHF 349 thousand for share-based payments was CHF 72 thousand less than the corresponding addition of CHF 421 thousand to equity shown in the consolidated statement of changes in equity (prior year: CHF 36 thousand more than the corresponding addition to equity). The difference arises from the accrual accounting for the share-based payments expense, from the effective capital increase and from the issuance stamp duty that was payable on the capital increase and charged directly to additional paid-in capital.

Additional compensation of Board members

In the fiscal year, the law firm Bär & Karrer AG, Zurich, billed fees in the amount of CHF 8 thousand for consulting services. Mariel Hoch, a member of Comet's Board of Directors, is a partner at this law firm. In the prior year, no services were obtained from or invoiced by members of the Board of Directors or their related parties.

31 Events after the balance sheet date

There have been no events after the balance sheet date with a material effect on the amounts in the consolidated financial statements.

32 Proposed distribution to shareholders

The Board of Directors will propose at the Annual Shareholder Meeting to pay a distribution to shareholders of CHF 1.00 per share from distributable paid-in capital (prior year: CHF 1.50) and of CHF 0.20 per share from retained earnings (prior year: nil). The total amount of the proposed distribution is CHF 9.3 million (prior year: CHF 11.6 million).

33 Release of the consolidated financial statements for publication

The Board of Directors released these annual financial statements on March 7, 2019 for publication and will present them to shareholders for approval at the Annual Shareholder Meeting on April 25, 2019.



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To the General Meeting of
Comet Holding Ltd., Flamatt

Berne, 7 March 2019

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 2018 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 86) give a true and fair view of the consolidated financial position of the Group as at 31 December 2018, 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	<p>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 29.2 million as of 31 December 2018 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 11. 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.</p>
Our audit approach	<p>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.</p> <p>Our audit procedures did not lead to any reservations concerning the measurement of intangible assets – goodwill and other.</p>



Recognition of provisions resulting from claims

Risk	As outlined in notes 16 and 25.1 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

Separate Financial Statements of Comet Holding AG

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Balance sheet

In thousands of CHF	Note	Dec. 31, 2018	%	Dec. 31, 2017	%
Assets					
Cash and cash equivalents		114		782	
Trade receivables from subsidiaries		14		17	
Prepaid expenses		196		275	
Total current assets		324	0.2%	1,074	0.6%
Non-current financial assets - loans	3	113,484		119,451	
Investments in subsidiaries	2	75,431		61,785	
Intangible assets		–		523	
Total non-current assets		188,915	99.8%	181,759	99.4%
Total assets		189,239	100.0%	182,832	100.0%
Liabilities and shareholders' equity					
Current trade payables to non-Group entities		106		111	
Current trade payables to shareholders and governing bodies		262		264	
Accrued expenses		1,232		1,181	
Non-current interest-bearing liabilities	8	60,000		60,000	
Total liabilities		61,600	32.6%	61,556	33.7%
Capital stock	5	7,760		7,754	
Statutory capital reserve		8,434		19,233	
Statutory earnings reserve		4,967		4,967	
Retained earnings brought forward		89,323		74,535	
Net income for the year		17,156		14,788	
Total retained earnings		106,479		89,323	
Total shareholders' equity		127,639	67.4%	121,276	66.3%
Total liabilities and shareholders' equity		189,239	100.0%	182,832	100.0%

Statement of income

In thousands of CHF	2018	%	2017	%
Dividend income	20,164		14,463	
Other financing income	2,612		4,951	
Other operating income	–		491	
Total income	22,776	100.0%	19,906	100.0%
Financing expenses	(2,255)		(2,922)	
Other operating expenses	(2,842)		(1,898)	
Amortization of rights to trademarks and names, FeinFocus	(523)		(298)	
Total expenses	(5,620)	24.7%	(5,118)	25.7%
Net income for the year	17,156	75.3%	14,788	74.3%

Notes to the separate financial statements of Comet Holding AG

General information

Comet Holding AG has its registered office in Flamatt, Switzerland and is the Comet Group's parent holding company listed on the Swiss stock exchange. The separate financial statements of Comet Holding AG at and for the year ended December 31, 2018 comply with the provisions of the Swiss Code of Obligations. The manner of the inclusion of Comet Holding AG in the consolidated accounts is governed by the measurement principles set out in the notes to the consolidated financial statements.

01 Accounting principles

These separate financial statements were prepared in accordance with the principles of the applicable Swiss Accounting Law (Title 32 of the Swiss Code of Obligations).

Receivables and loans

Receivables and loans are stated at nominal amounts less any necessary write-downs.

Intangible assets

Intangible assets – the rights to trademarks and names related to FeinFocus – are recognized at historical cost less necessary amortization and impairment charges. The rights were written off in full in the year under review.

Investments in subsidiaries

Investments in subsidiaries are recognized at historical cost less necessary impairment charges, and individually tested annually for impairment.

02 Investments in subsidiaries

The following companies were consolidated in the Group financial statements of Comet Holding AG at December 31, 2018:

Company	Registered office	Currency	Capital stock	Equity interest in % *	
				2018	2017
Comet Holding AG	Flamatt, Switzerland	CHF	7,759,882	100%	100%
Comet AG	Flamatt, Switzerland	CHF	2,000,000	100%	100%
Comet Electronics (Shanghai) Co. Ltd.	Shanghai, China	CNY	5,466,148	100%	100%
Comet Mechanical Equipment (Shanghai) Co. Ltd.	Shanghai, China	CNY	1,655,420	100%	100%
Comet Technologies USA, Inc.	Shelton, CT, USA	USD	1,000	100%	100%
Comet Technologies Korea Co. Ltd.	Suwon, Korea	KRW	500,000,000	100%	100%
Yxlon International GmbH	Hamburg, Germany	EUR	110,000	100%	100%
Yxlon International A/S	Taastrup, Denmark	DKK	601,000	100%	100%
Yxlon International KK	Yokohama, Japan	JPY	10,000,000	100%	100%
Yxlon (Beijing) X-Ray Equipment Trading Co. Ltd.	Beijing, China	CNY	1,077,000	100%	100%

* Comet Holding AG also holds 100% of the voting rights in all companies.

03 Non-current financial assets – loans

Loans to subsidiaries were as follows:

In thousands of CHF	2018	2017
Comet AG	71,555	53,720
Comet Technologies USA, Inc.	22,153	39,165
Comet Technologies Korea Co. Ltd.	–	42
Yxlon International GmbH	16,785	22,689
Yxlon International A/S	2,991	2,980
Yxlon International KK	–	855
Total loans to subsidiaries	113,484	119,451

04 Listing and shareholders

Comet Holding AG (the “Company”) is the Group’s only company listed on a stock exchange. The Company’s registered office is in Flamatt, Switzerland. The registered shares of Comet Holding AG have been listed in the main market segment of the SIX Swiss Exchange in Zurich since December 17, 2002.

Ticker symbol	COTN
Security number	36 082 699
ISIN	CH0360826991
Closing price at December 31, 2018	CHF 79.75
Market capitalization at December 31, 2018	CHF 619 million

Assorted data on the stock of Comet Holding AG is provided inside the cover flap at the front of the annual report.

Listed and non-listed Group companies

Comet Holding AG has no publicly traded subsidiaries. The companies consolidated in the Comet Group are presented above in note 2, “Investments in subsidiaries”.

Registered shareholders

At December 31, 2018, Comet Holding AG had 5,121 voting shareholders of record (i.e., voting shareholders registered in the share register; prior year: 3,303). Of the total issued registered stock, 100% (prior year: 100%) represented free float. Comet Holding AG held no treasury stock at December 31, 2018 (prior year: none). The structure of share ownership size classes among the shareholders of record at December 31, 2018 was as follows:

Number of shares	Number of shareholders
1 to 1,000	4,698
1,001 to 10,000	379
10,001 to 50,000	33
50,001 to 100,000	5
More than 100,000	6

This analysis includes only the stock of shareholders who were registered in the share register. At December 31, 2018 the shares of unregistered owners amounted to 27% of the total (prior year: 40%).

Significant shareholders

Ownership interests in companies domiciled in Switzerland whose shares are listed at least partly in Switzerland must be notified both to the issuer company and to the SIX Swiss Exchange when the holder's voting rights reach, increase above or fall below certain thresholds. These notification thresholds are 3%, 5%, 10%, 15%, 20%, 25%, 33 $\frac{1}{3}$ %, 50% and 66 $\frac{2}{3}$ % of voting rights. The relevant details are set out in the Swiss Stock Exchange Act (BEHG) and in the Ordinance of the Swiss Financial Market Supervisory Authority on Stock Exchanges and Securities Trading (the FINMA Stock Exchange Ordinance).

At December 31, 2018 the Company, according to disclosure notifications, had the following significant shareholders (defined for this purpose as holding 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	7.29%
Pictet Asset Management SA (Direction de Fonds)		5.07%
UBS Fund Management (Switzerland AG)		3.63%
Credit Suisse Funds AG		3.01%

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.

With an effective date of January 9, 2019, VERAISON has announced an increase in its voting rights to a share of 10.04%.

Reportable changes during fiscal year 2018

In the fiscal year under review, 15 reportable announcements were published. For a complete list of all announcements under section 20 BEHG, refer to the publication platform of the disclosure section of the SIX Swiss Exchange: www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html

Cross-shareholdings

There were no cross-shareholdings with other publicly traded companies.

05 Equity capital structure**Capital stock**

The capital stock at January 1, 2018 was CHF 7,753,658, divided into 7,753,658 registered shares with a par value of CHF 1.00 per share (after the prior year's stock split).

In fiscal year 2018 the capital stock was increased by 6,224 shares from the portion of authorized capital designated for equity-based compensation. Including the increase of 6,224 shares from this portion of authorized capital, Comet Holding AG at December 31, 2018 thus had a new total of CHF 7,759,882 of capital stock, divided into 7,759,882 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, 2018 the Board of Directors established that the capital increase from authorized capital for equity 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.

	2018		2017	
	Number of shares	Par value in CHF	Number of shares	Par value in CHF
January 1	7,753,658	7,753,658	7,745,430	7,745,430
Increase in capital from the portion of authorized capital designated for equity compensation	6,224	6,224	8,228	8,228
December 31	7,759,882	7,759,882	7,753,658	7,753,658

At the balance sheet date, Comet Holding AG held no treasury stock (prior year: none).

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 2018, in accordance with the compensation plan, the members of the Board of Directors were granted a total of 1,141 shares of stock in payment of CHF 153,750 of fixed retainers due for fiscal year 2017. In addition, as part of their compensation for 2018, the members of the Board of Directors were granted a total of 568 shares in payment of CHF 76,538 of fixed retainers due for the period from January 1, 2018 to the 2018 Annual Shareholder Meeting. The fully paid shares were applied to the retainers due at a price of CHF 134.75 per share.

Members of the Executive Committee were granted a total of 4,515 shares in payment of CHF 608,396 of profit-sharing compensation due for fiscal year 2018. The fully paid shares were applied to the compensation due at a price of CHF 134.75 per share.

As a result of these grants of a total of 6,224 shares made in 2018, the Company's unissued authorized capital for equity-based compensation showed the following movement:

	2018		2017	
	Number of shares	Par value in CHF	Number of shares	Par value in CHF
January 1	209,462	209,462	217,690	217,690
Increase in capital (awards to Board of Directors for prior term's retainer and to Executive Committee for prior year's profit-sharing compensation)	(6,224)	(6,224)	(8,228)	(8,228)
December 31	203,238	203,238	209,462	209,462

At the end of the year, the remaining unissued authorized capital for equity-based compensation was CHF 203,238, or 2.6% of the existing capital stock.

Authorized capital for other capital increases

At December 31, 2018, 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 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.

06 Disclosure of shareholdings of the Board of Directors and Executive Committee

The ownership interests in Comet Holding AG held by current members of the Board of Directors and Executive Committee are disclosed below. This disclosure covers all persons who held positions on the Board of Directors or Executive Committee for all or part of the year under review or of the prior year, regardless of whether they still did so at the balance sheet date. The shareholdings shown include those of respective related parties.

	Total number of shares		Of which: number of shares subject to holding periods ending on:			Freely disposable	Share of voting rights	
	2018	2017	4/21/2019	4/20/2020	4/26/2021		2018	2017
Hans Hess Chairman of the Board	37,222	36,733	1,040	543	489	35,150	0.5%	0.5%
Lucas A. Grolimund Vice Chairman and member of the Board	9,865	9,621	520	271	244	8,830	0.1%	0.1%
Gian-Luca Bona Member of the Board	5,665	5,421	520	271	244	4,630	0.1%	0.1%
Rolf Huber Member of the Board	13,605	13,361	520	271	244	12,570	0.2%	0.2%
Mariel Hoch Member of the Board	515	271	0	271	244	0	0.0%	0.0%
Franz Richter Member of the Board	515	271	0	271	244	0	0.0%	0.0%
Rene Lenggenhager Chief Executive Officer	6,024	5,500	0	0	461	5,563	0.1%	0.1%
Markus Portmann Chief Financial Officer	2,943	2,469	540	709	357	1,337	0.0%	0.0%
Thomas Polzer Chief Operating Officer (until June 13, 2018)	658	269	0	269	326	63	0.0%	0.0%
Detlef Steck President of X-Ray Systems division (until June 30, 2018)	1,058	697	0	597	401	60	0.0%	0.0%
Thomas Wenzel President of X-Ray Systems division (since December 1, 2018)	73	0	0	0	0	73	0.0%	0.0%
Michael Kammerer President of Plasma Control Technologies division	1,877	2,361	530	691	656	0	0.0%	0.0%
Charles Flükiger President of ebeam Technologies division (until September 30, 2018)	3,323	2,361	530	691	348	1,754	0.0%	0.0%
Stephan Haferl President of X-Ray Modules division (since January 1, 2018)	151	0	0	0	0	151	0.0%	0.0%
Eric Dubuis Chief Information Officer	1,170	1,754	380	504	279	7	0.0%	0.0%
Prisca Hafner Chief Human Resources Officer (since January 1, 2018)	180	0	0	0	0	180	0.0%	0.0%

Each 10,000 registered shares of Comet Holding AG, of a par value of CHF 1.00 per share, represented 0.1289% of all voting power (prior year: 0.1290%). The members of the Board of Directors and Executive Committee held a combined total of 1.1% of voting rights (prior year: 1.2%). No material changes in ownership interests arose after the balance sheet date of December 31, 2018.

07	Options, conversion rights and treasury stock	Comet Holding AG has not issued any conversion rights or stock options. In fiscal year 2018 and the prior year, Comet Holding AG held no treasury stock.
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08	Bond	<p>On April 20, 2016, Comet Holding AG issued a bond in the amount of CHF 60 million (denomination: CHF 5,000). The term is five years and the bond matures on April 20, 2021. The fixed coupon over the term of the bond is 1.875%, payable annually on April 20.</p> <p>Listing: SIX Swiss Exchange (security number 32061943, ISIN number CH0320619437, ticker symbol COT16).</p>
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09	Guarantees and pledged assets	The Group is taxed as a single entity for purposes of value-added taxation, and Comet Holding AG therefore has joint and several liability for the value-added tax obligations of its Swiss subsidiary.
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10	Number of full-time equivalents	The annual average number of full-time equivalents in 2018 and 2017 was less than ten.
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11	Release of the separate financial statements for publication	The Board of Directors released these financial statements on March 7, 2019 for publication and will present them to shareholders for approval at the Annual Shareholder Meeting on April 25, 2019.
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Board of Directors' proposal for the appropriation of retained earnings and distribution from distributable paid-in capital

- 01 Proposal for appropriation of 2018 retained earnings** At the Annual Shareholder Meeting the Board of Directors will propose the following appropriation of retained earnings:

In thousands of CHF	2018
Earnings brought forward	89,323
Transfer from distributable paid-in capital reserve	–
Net income for the year	17,156
Retained earnings available for distribution	106,479
Earnings carried forward	106,479

- 02 Proposal for payment of a dividend** At the Annual Shareholder Meeting the Board of Directors will propose a total distribution of CHF 1.20 per share in an aggregate amount of CHF 9.3 million. Provided it is approved, the distribution will result in the following movement in the distributable paid-in capital reserve and in retained earnings:

Distribution from distributable paid-in capital

At the Annual Shareholder Meeting the Board of Directors will propose a distribution of CHF 1.00 per share from distributable paid-in capital.

In thousands of CHF	2018
Distributable paid-in capital reserve at December 31, 2018	8,434
Payout of CHF 1.00 per share (prior year: CHF 1.50)	(7,760)
Distributable paid-in capital reserve after proposed payout	674

Distribution from retained earnings

At the Annual Shareholder Meeting the Board of Directors will further propose a distribution of CHF 0.20 per share from retained earnings.

In thousands of CHF	2018
Retained earnings at December 31, 2018	106,479
Payout of CHF 0.20 per share (prior year: nil)	(1,552)
Retained earnings after proposed payout	104,927

Provided these proposals are approved, the total distribution of CHF 1.20 per entitled share will be paid on May 2, 2019.



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To the General Meeting of
Comet Holding Ltd., Flamatt

Berne, 7 March 2019

Report of the statutory auditor on the financial statements

As statutory auditor, we have audited the financial statements of Comet Holding Ltd., which comprise the balance sheet, income statement and notes (pages 93 to 100), for the year ended 31 December 2018.



Board of Directors' responsibility

The Board of Directors is responsible for the preparation of the financial statements in accordance with the requirements of Swiss law and the company's articles of incorporation. This responsibility includes designing, implementing and maintaining an internal control system relevant to the preparation of financial statements that are free from material misstatement, whether due to fraud or error. The Board of Directors is further responsible for selecting and applying appropriate accounting policies and making accounting estimates that are reasonable in the circumstances.



Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers the internal control system relevant to the entity's preparation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control system. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made, as well as evaluating the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.



Opinion

In our opinion, the financial statements for the year ended 31 December 2018 comply with Swiss law and the company's articles of incorporation.



Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the 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 responsibility* 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 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 financial statements.

Impairment of investments and loans

Risk	As the parent company of the Group, the company holds investments in various subsidiaries. Furthermore, the parent company uses intragroup loans to fund a number of subsidiaries. Investments and loans each amount to approx. 50% of total assets and are therefore material. By definition, amounts recognized on the balance sheet are subject to an impairment risk. When there are indications of possible impairments, management prepares the required calculations and, if applicable, records a depreciation or allowance. The calculations are based in part on simplified principles, especially when management considered the risk of an impairment to be low.
Our audit approach	We reviewed the calculations performed by management, which were based on statutory financial statements or assessments in connection with the consolidated financial statements. For more complex cases, we involved our valuation specialists in checking particularly the plausibility of the discount rates used. Our audit procedures did not lead to any reservations concerning the measurement of the investments and loans.



Report on other legal requirements

We confirm that we meet the legal requirements on licensing according to the Auditor Oversight Act (AOA) and independence (article 728 CO and article 11 AOA) and that there are no circumstances incompatible with our independence.

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



We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

Ernst & Young Ltd

Roland Ruprecht
Licensed audit expert
(Auditor in charge)

Philippe Wenger
Licensed audit expert

Corporate Governance 2018

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Corporate governance is defined by the Comet Group as the entirety of the principles and practices aimed at safeguarding shareholder interests. While maintaining management's decision-making capability and efficiency, the aim of good corporate governance is to ensure an appropriate balance of leadership and control, along with transparent reporting.

This corporate governance report describes the management structure and control principles in place at the top organizational levels of the Comet Group. The key elements are defined in the Company's Bylaws and its organizational regulations (the Management Organization Manual).

The corporate governance report is based on the requirements of the SIX Swiss Exchange's Directive on Information Relating to Corporate Governance (DCG).

The disclosure requirements of the Ordinance Against Excessive Compensation at Listed Companies (OAEC) are fully met.

Group structure and ownership

Structure of the operating activities of the Comet Group

Plasma Control Technologies PCT	X-Ray Systems IXS	X-Ray Modules IXM	ebeam Technologies EBT
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The Group's commercial activities are divided into four divisions: Plasma Control Technologies (PCT), X-Ray Systems (IXS), Industrial X-Ray Modules (IXM) and ebeam Technologies (EBT). Financial reporting is segmented along these divisional lines. The financial data for the individual divisions is found in the divisional reporting within the notes to the consolidated annual financial statements, beginning on page 52 of this annual report.

Listed Group company: Comet Holding AG

Comet Holding AG (the "Company") is the Group's only company listed on a stock exchange. The Company's registered office is in Flamatt, Switzerland. The registered shares of Comet Holding AG have been listed in the main market segment of the SIX Swiss Exchange in Zurich since December 17, 2002.

Ticker symbol	COTN
Security number	36 082 699
ISIN	CH0360826991
Closing price at December 31, 2018	CHF 79.75
Market capitalization at December 31, 2018	CHF 619 million

Assorted data on the stock of Comet Holding AG is provided inside the cover flap at the front of the annual report.

Non-listed Group companies

Comet Holding AG has no publicly traded subsidiaries.

Basis of consolidation

The following companies' results were consolidated in the accounts of the Comet Group at December 31, 2018:

Company	Registered office	Currency	Capital stock	Equity interest in % *	
				2018	2017
Comet Holding AG	Flamatt, Switzerland	CHF	7,759,882	100%	100%
Comet AG	Flamatt, Switzerland	CHF	2,000,000	100%	100%
Comet Electronics (Shanghai) Co. Ltd.	Shanghai, China	CNY	5,466,148	100%	100%
Comet Mechanical Equipment (Shanghai) Co. Ltd.	Shanghai, China	CNY	1,655,420	100%	100%
Comet Technologies USA, Inc.	Shelton, CT, USA	USD	1,000	100%	100%
Comet Technologies Korea Co. Ltd.	Suwon, Korea	KRW	500,000,000	100%	100%
Yxlon International GmbH	Hamburg, Germany	EUR	110,000	100%	100%
Yxlon International A/S	Taastrup, Denmark	DKK	601,000	100%	100%
Yxlon International KK	Yokohama, Japan	JPY	10,000,000	100%	100%
Yxlon (Beijing) X-Ray Equipment Trading Co. Ltd.	Beijing, China	CNY	1,077,000	100%	100%

* Comet Holding AG also holds 100% of the voting rights in all companies.

Registered shareholders

At December 31, 2018, Comet Holding AG had 5,121 voting shareholders of record (i.e., voting shareholders registered in the share register; prior year: 3,303). Of the total issued registered stock, 100% (prior year: 100%) represented free float. Comet Holding AG held no treasury stock at December 31, 2018 (prior year: none). The structure of share ownership size classes among the shareholders of record at December 31, 2018 was as follows:

Number of shares	Number of shareholders
1 to 1,000	4698
1,001 to 10,000	379
10,001 to 50,000	33
50,001 to 100,000	5
More than 100,000	6

This analysis includes only the stock of shareholders who were registered in the share register. At December 31, 2018 the shares of unregistered owners amounted to 27% of the total (prior year: 40%).

Significant shareholders

Ownership interests in companies domiciled in Switzerland whose shares are listed at least partly in Switzerland must be notified both to the issuer company and to the SIX Swiss Exchange when the holder's voting rights reach, increase above or fall below certain thresholds. These notification thresholds are 3%, 5%, 10%, 15%, 20%, 25%, 33 $\frac{1}{3}$ %, 50% and 66 $\frac{2}{3}$ % of voting rights. The relevant details are set out in the Swiss Stock Exchange Act (BEHG) and in the Ordinance of the Swiss Financial Market Supervisory Authority on Stock Exchanges and Securities Trading (the FINMA Stock Exchange Ordinance).

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N/A	VERAISON SICAV – Engagement Fund	7.29%
Pictet Asset Management SA (Direction de Fonds)		5.07%
UBS Fund Management (Switzerland AG)		3.63%
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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.

With an effective date of January 9, 2019, VERAISON has announced an increase in its voting rights to a share of 10.04%.

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In the fiscal year under review, 15 reportable announcements were published. For a complete list of all announcements under section 20 BEHG, refer to the publication platform of the disclosure section of the SIX Swiss Exchange: www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html

Cross-shareholdings

There were no cross-shareholdings with other publicly traded companies.

Capital structure

Capital stock

The capital stock at January 1, 2018 was CHF 7,753,658, divided into 7,753,658 registered shares with a par value of CHF 1.00 per share.

In fiscal year 2018 the capital stock was increased by 6,224 shares from the portion of authorized capital designated for equity-based compensation. Including the increase of 6,224 shares from this portion of authorized capital, Comet Holding AG at December 31, 2018 thus had a new total of CHF 7,759,882 of capital stock, divided into 7,759,882 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, 2018 the Board of Directors established that the capital increase from authorized capital for equity compensation was performed properly. The information in the commercial register, and the Bylaws of Comet Holding AG, were updated to reflect the change in capital stock.

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	Number of shares	Par value in CHF	Number of shares	Par value in CHF
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Increase in capital from the portion of authorized capital designated for equity compensation	6,224	6,224	8,228	8,228
December 31	7,759,882	7,759,882	7,753,658	7,753,658

At the balance sheet date, Comet Holding AG held no treasury stock (prior year: none).

Authorized capital for equity-based compensation

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In May 2018, in accordance with the compensation plan, the members of the Board of Directors were granted a total of 1,141 shares of stock in payment of CHF 153,750 of fixed retainers due for fiscal year 2017. In addition, as part of their compensation for 2018, the members of the Board of Directors were granted a total of 568 shares in payment of CHF 76,538 of fixed retainers due for the period from January 1, 2018 to the 2018 Annual Shareholder Meeting. The fully paid shares were applied to the retainers due at a price of CHF 134.75 per share.

Members of the Executive Committee were granted a total of 4,515 shares in payment of CHF 608,396 of profit-sharing compensation due for fiscal year 2018. The fully paid shares were applied to the compensation due at a price of CHF 134.75 per share.

As a result of these grants of a total of 6,224 shares made in 2018, the Company's unissued authorized capital for equity-based compensation showed the following movement:

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January 1	209,462	209,462	217,690	217,690
Increase in capital (awards to Board of Directors for prior term's retainer and to Executive Committee for prior year's profit-sharing compensation)	(6,224)	(6,224)	(8,228)	(8,228)
December 31	203,238	203,238	209,462	209,462

At the end of the year, the remaining unissued authorized capital for equity-based compensation was CHF 203,238, or 2.6% of the existing capital stock.

Authorized capital for other capital increases

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Changes in shareholders' equity

Over the last three years the shareholders' equity of Comet Holding AG showed the following movements:

In thousands of CHF	Capital stock	General legal reserve	Distributable paid-in capital	Free reserve	Retained earnings	Total shareholders' equity
December 31, 2015	7,738	4,967	35,629	0	65,210	113,543
Net income	0	0	0	0	9,226	9,226
Distribution from distributable paid-in capital	0	0	(8,512)	0	0	(8,512)
Transfer	0	0	(74)	0	74	–
Increase in capital stock	7	0	478	0	0	485
December 31, 2016	7,745	4,967	27,521	0	74,510	114,743
Net income	0	0	0	0	14,788	14,788
Distribution from distributable paid-in capital	0	0	(9,295)	0	0	(9,295)
Increase in capital stock	8	0	1,007	0	25	1,040
December 31, 2017	7,754	4,967	19,233	0	89,323	121,276
Net income	0	0	0	0	17,156	17,156
Distribution from distributable paid-in capital	0	0	(11,630)	0	0	(11,630)
Increase in capital stock	6	0	831	0	0	837
December 31, 2018	7,760	4,967	8,434	0	106,479	127,639

The corresponding information for the prior two fiscal years is found on page 126 of the annual report 2016 and page 106 of the annual report 2017. Further information on movements in equity is presented in the consolidated statement of changes in equity on page 38 of this annual report.

Stock

The Company's capital stock at December 31, 2018 consisted of 7,759,882 registered shares with a par value of CHF 1.00 per share. The capital stock is fully paid in. With the exception of any treasury stock held by the Company, every share carries dividend rights. Each share represents one vote at the Shareholder Meeting, provided that the shareholder is recorded in the share register.

Participation certificates

The Company has not issued any participation certificates.

Dividend right certificates

The Company has not issued any dividend right certificates.

Convertible bonds and options

The Company has not issued any conversion rights or stock options.

Bond

On April 20, 2016, Comet Holding AG issued a bond in the amount of CHF 60 million (in a denomination of CHF 5,000). The term is five years and the bond matures on April 20, 2021. The fixed coupon over the term of the bond is 1.875%, payable annually on April 20. Listing: SIX Swiss Exchange (security number 32061943, ISIN number CH0320619437, ticker symbol COT16).

Restrictions on transferability and nominee registration

The Company keeps a share register in which the shares' owners and beneficial owners and the number of their shares are recorded. The share register is operated on behalf of the Comet Group by Devigus Engineering AG. For the purposes of the legal relationship with the Company, shareholders or beneficial owners of shares are recognized as such only if they are registered in the share register. Purchasers of registered stock or of beneficial rights with respect to registered stock are upon their request recorded as voting shareholders in the share register by the Board of Directors if the purchasers state explicitly that they have acquired, and will hold, the stock or beneficial interest for their own account. Registration in the share register requires evidence of the acquisition of full legal title to the shares or evidence of the establishment of beneficial ownership. For the purpose of this condition, nominee shareholders (nominees) are deemed to be those persons who do not explicitly state in their registration application that they hold the shares for their own account. The Board of Directors registers nominees as holding voting shares only up to a maximum of 5% of the capital stock recorded in the Swiss commercial register of companies. Where legal entities or groups with joint legal status are connected by capital, voting rights, management or in some other manner, they are deemed to constitute a single nominee, as are all natural persons, legal entities or groups with joint legal status that by agreement, as a syndicate or in any other way act in a coordinated manner in circumventing the nominee rules. The Company may, after hearing the affected party, void registrations in the share register with retroactive effect from the date of registration if they were based on false information given by the purchaser. The purchaser must be informed of the deletion immediately. The Board of Directors determines the details of the application of these provisions and makes the arrangements necessary to ensure compliance with them. In special cases, the Board may approve exceptions to the nominee rules. In the year under review, no applications for such special treatment were received.

Management transactions

The Listing Rules of the SIX Swiss Exchange require the disclosure of management transactions in stock of the Company and related financial instruments. The Board of Directors has issued a corresponding regulation in order to comply with these requirements. The parties whose transactions of this nature are reportable to the Company are the members of the Board of Directors and of the Executive Committee (the Executive Committee is the most senior level of operational management). In the fiscal year, six disclosures were filed. Published disclosures can be found on the website of the SIX Swiss Exchange.

Board of Directors

The Board of Directors has ultimate responsibility for supervising the top-level operational management personnel of the Comet Group. The Board sets the Group's strategic goals and the guidelines for organizational structure and financial planning.

Composition of the Board of Directors of Comet Holding AG

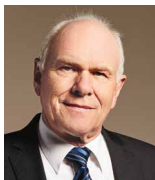
On December 31, 2018 the Board of Directors of Comet Holding AG had the following six members:

Name	Nationality	Position on the Board	Member since	Elected until AGM
Hans Hess Dipl. Ing. ETH, MBA USC	Swiss	Chairman and non-executive member	2005	2019
Lucas A. Grolimund Dipl. Ing. ETH, MBA INSEAD	Swiss	Vice Chairman and non-executive member	2007	2019
Gian-Luca Bona Prof. Dr. sc. nat. ETH	Swiss	Non-executive member	2012	2019
Mariel Hoch Lawyer	Swiss	Non-executive member	2016	2019
Rolf Huber Dipl. Ing. Agr. ETH	Swiss	Non-executive member	2008	2019
Franz Richter Dr. Ing. RWTH	German	Non-executive member	2016	2019

Secretary of the Board of Directors (since 2010) and non-member of the Board:
Ines Najorka, Vice President of Corporate Communications.

Additional information on the members of the Board of Directors

The information below outlines the education, significant professional experience and current position of each Board member. Where a place name is not followed by a country or state, the country is Switzerland.



Hans Hess
(b. 1955, Swiss citizen)

Education

Dipl. Werkstoffingenieur (master's) degree in materials science from Federal Institute of Technology (ETH), Zurich; MBA from University of Southern California, Los Angeles, CA

Professional experience

1981 to 1983: development engineer at Sulzer AG, Winterthur; 1983 to 1988: head of PUR business unit, Huber & Suhner AG, Pfäffikon; 1989 to 1993: head of Medicinal and Stereo Microscopy, director, Leica AG, Heerbrugg; 1993 to 1996: president of Optronics division, Leica AG, Heerbrugg; 1996 to 2005: CEO of Leica Geosystems AG, Heerbrugg; since 2006: president of Hanesco AG, International Management Consulting, Pfäffikon



Lucas A. Grolimund
(b. 1966, Swiss citizen)

Education

Dipl. Elektroingenieur master's degree in electrical engineering from Swiss Federal Institute of Technology (ETH), Zurich; M.Sc. degree in electrical engineering from Stanford University, Palo Alto, CA; MBA from INSEAD, Fontainebleau, France

Professional experience

1995 to 2000: McKinsey & Company, Zurich; 2000 to 2003: CFO of Gate Gourmet Group, Opfikon; 2003 to 2007: CEO of Schlatter Holding AG, Schlieren; 2007 to 2009: CEO of Cicor Technologies, Boudry; since 2009: independent consultant



Gian-Luca Bona
(b. 1957, Swiss citizen)

Education

Dipl. Phys. master's degree in physics from Swiss Federal Institute of Technology (ETH), Zurich and Dr. sc. nat. doctorate in physics from ETH, Zurich

Professional experience

1987 to 2002: IBM Research Laboratory, Rüschlikon; 2002: IBM Watson Research Center, Yorktown Heights, NY; 2003 to 2004: research manager, Photonics Networks, IBM Research Laboratory, Rüschlikon; 2004 to 2008: research functional manager, Science and Technology, IBM Almaden Research Center, San José, CA; 2008 to 2009: director of tape storage solutions, IBM, Tucson, AZ; since September 2009: CEO of Empa (the Swiss Materials Science & Technology Laboratory) and professor of photonics at the Swiss Federal Institutes of Technology (ETH, Zurich and EPF, Lausanne).



Mariel Hoch
(b. 1973, Swiss citizen)

Education

Lic. iur. degree in law from University of Zurich; Dr. iur. doctorate in competition law from University of Zurich

Professional experience

Partner at the law firm Bär & Karrer AG, Zurich, with a focus on mergers and acquisitions and advising of listed companies



Rolf Huber
(b. 1965, Swiss citizen)

Education

Dipl. Ing. Agr. master's degree in agronomy from Swiss Federal Institute of Technology, Zurich

Professional experience

1993 to 1997: McKinsey & Company, Zurich; 1997 to 1998: member of executive management of Coop Switzerland; 1998 to 2001: CFO of Hero AG and Hero Group; since 2001: independent consultant and partner at Ceres Capital AG; from 2014 was CEO and since 2017 is chairman of H2 Energy AG, Glattpark/Zurich



Franz Richter
(b. 1955, German citizen)

Education

Dipl. Ing. master's degree in physics from Technische Hochschule Darmstadt, Germany; doctorate in mechanical engineering from Rheinisch-Westfälische Technische Hochschule Aachen, Germany

Professional experience

1985 to 1988: researcher at Carl Zeiss, Oberkochen, Germany; 1988 to 1990: researcher at Fraunhofer Institute for Laser Technology, Aachen, Germany; 1990 to 2004: various positions at Süss MicroTec, Garching, Germany, including CEO from 1998 to 2004 and again since fall 2016; 2005 to 2007: president of Semiconductor Equipment segment, Unaxis, OC Oerlikon, Pfäffikon; from 2007: CEO and co-founder of Thin Materials, Eichenau, Germany

Operational management functions

At the reporting date of December 31, 2018, none of the members of the Board of Directors had operational management responsibilities in the Comet Group. In the three years immediately preceding the year under review, none of the current Board members was a member of the Executive Committee of the Comet Group.

Related party transactions

The Board members had no material business relationships with the Comet Group.

Activities and interests outside the Group

Section 27 of the Bylaws, which have been revised for compliance with the OAEC and approved by the Shareholder Meeting, specifies the allowable number of other, external positions that members of the Board of Directors may hold on top management or supervisory bodies, as follows:

- Members of the Board of Directors may each not hold more than five external positions on top management or supervisory bodies of listed (i.e., exchange-traded) companies and not more than seven such external positions in non-listed companies.
- Members of the Board of Directors may each not hold more than ten such positions in associations, non-profit foundations, family foundations and employee pension funds.
- Positions in companies controlled by Comet Holding AG, or positions controlled by it, are not subject to restriction.

At December 31, 2018 the members of the Board of Directors had the following positions on top management or supervisory bodies of significant Swiss and foreign private sector and public sector companies, institutions and foundations:

Hans Hess

Member of the board, Burckhardt Compression Holding AG, Winterthur; chairman of the board, Reichle & De-Massari Holding AG, Wetzikon; member of the board, dormakaba Holding AG, Rümlang; president, Swissmem (the trade association of the Swiss mechanical and electrical engineering industries); vice president, economiesuisse (the Swiss business federation)

Gian-Luca Bona

Member of the board, Bobst Group SA, Mexico; chairman of the board, Technopark Zürich Foundation; chairman, Swiss Technopark Allianz; chairman, glaTec technology center, Dübendorf; member of the board, Zurich Innovation Park foundation; member of the board, Bundesanstalt für Materialien (BAM, German Federal Institute for Materials Research and Testing), Berlin.

Mariel Hoch

Member of the board, SIG Combibloc Group AG, Neuhausen am Rheinfall; member of the board, The Schörling Foundation, Lucerne

Franz Richter

Chief executive officer, Süss MicroTec SE, Garching, Germany; member of the board, Meyer Burger Technology AG, Thun; chairman of the board of trustees, Fraunhofer Institute for Reliability and Microintegration IZM, Berlin, Germany; chairman of the board, Scint-X Technologies AB, Kista, Sweden

Board elections and terms

Under the Bylaws of Comet Holding AG, its Board of Directors must have at least five members. The Board members are elected by the Annual Shareholder Meeting for a one-year term. They are individually elected when standing for election or re-election. The Shareholder Meeting also elects one member of the Board of Directors as the Chairman of the Board, and elects the members of the Nomination & Compensation Committee.

The term of office ends at the conclusion of the next Annual Shareholder Meeting. Re-election for consecutive terms is permitted. If elections are held during a term to replace or add Board members, the newly elected members serve for the remainder of the current term.

The maximum age for membership on the Board is 70 years. Every Board member must retire from the Board on the day of the Annual Shareholder Meeting held in the year in which he or she reaches 70 years of age.

The Bylaws are in accordance with the legal requirements of the OAEK.

Internal organization

Except for the election of the Board Chairman and the members of the Compensation Committee by the Shareholder Meeting, the Board of Directors constitutes itself at its first meeting after its election or re-election by the Shareholder Meeting. The Board appoints its Vice Chairman, the members of the other Board committees and the Board Secretary. The Secretary need not be a member of the Board. The Board meets at the invitation of the meeting's chairman as often as business requires, or when requested by a Board member in writing for a stated purpose. The Board has a quorum when the majority of members are present.

The Board passes its resolutions and performs its elections by an absolute majority of votes cast. In the event of an equality of votes, the chairman of the meeting has the casting vote. Resolutions on a motion may alternatively be reached in writing if no Board member objects to this method. Minutes must be kept of the deliberations and resolutions and be signed by the meeting chairman and the Board Secretary. The minutes are presented to the Board at its next meeting for approval. The Bylaws are in accordance with the legal requirements of the OAEC.

Functioning of the full Board of Directors

The Board of Directors as a rule convenes for a regular meeting every two months. Additional meetings or telephone conferences are held as needed. Depending on the business at hand, the Board meetings are between half a day and a full day in length.

A total of seven regular meetings of the full Board were held in the year under review. Besides several telephone conferences of the full Board, several meetings of the Board committees were held, which are normally half a day in length.

The Board of Directors is regularly kept informed of the course of business by the CEO and CFO at its meetings, and also on an ad hoc basis as needed. Other members of the Executive Committee, other management staff and specialists of the Comet Group regularly attend Board meetings to report on particular projects in their area of responsibility. As well, external advisors are consulted as required to deal with specific matters. The Board receives monthly written financial reports on the current business performance.

Board committees

In fiscal year 2018 the individual Board committees had the following members:

Committee	Members
Nomination & Compensation Committee (NCC)	Rolf Huber (Committee chairman)
	Mariel Hoch
Audit Committee (AC)	Lucas A. Grolimund (Committee chairman)
	Hans Hess
Technology Committee (TC)	Gian-Luca Bona (Committee chairman)
	Franz Richter

Every committee normally consists of at least two members of the Board. The members of the Nomination & Compensation Committee (NCC) are elected anew every year by the Annual Shareholder Meeting. The members of the other committees are elected by the Board from among the Board members for a term of one year. Every committee normally meets at least twice per year, or as often as business requires. Reports to the full Board are made orally or in writing as required.

The committees' principal function is to prepare decision support for the full Board in special subject areas. At the regular meetings or as required, the full Board is kept informed of the activities of the individual committees. The overall responsibility for the tasks assigned to the committees remains with the full Board, which decides as a body on all proposals.

Nomination & Compensation Committee

The Nomination & Compensation Committee is made up of two members of the Board, who are elected to the Committee yearly by the Annual Shareholder Meeting. In the year under review these members were Rolf Huber (chairman) and Mariel Hoch.

The term of office is one year. Re-election for consecutive terms is permitted. The NCC prepares all agenda items related to the nomination and compensation of Board members and Executive Committee members. The NCC itself does not make decisions, but prepares proposals for the approval of the full Board of Directors. The Committee has the following responsibilities in particular:

- Attend to the compensation policy for the remuneration of the Board of Directors and Executive Committee and to the compensation structure of the Comet Group
- Produce the proposed compensation report and support the Board of Directors in preparing resolutions for the Annual Shareholder Meeting for the approval of compensation
- Develop proposals for guidelines for the compensation of the Board of Directors and Executive Committee
- Review stock ownership plans and recommend adjustments as appropriate
- Propose new Board members and the Chief Executive Officer for appointment
- Provide support to the CEO in evaluating candidates for the Executive Committee

Additional responsibilities may be assigned to the Committee as required. The Nomination & Compensation Committee convenes for at least two regular meetings per year. The NCC may hold additional meetings at its discretion. The Committee may invite other Board members, Executive Committee members and specialists to its meetings as required.

In the year under review the Committee, besides several telephone conferences, held three physical meetings, all of which were attended by both of its members. The meetings were also partly or fully attended, in an advisory role, by the CEO and the Chief Human Resources Officer.

Audit Committee

The Audit Committee supports the full Board in exercising oversight of accounting and financial reporting and in monitoring compliance with legal requirements. The Committee has the following responsibilities in particular:

- Evaluate the structure and form of the Group's accounting system
- Gauge the effectiveness of the independent auditors and the internal controls
- Evaluate the coordination of external and internal auditing, and review the performance and compensation of the external independent auditors
- Evaluate the effectiveness of risk management

- Review the rolling multi-year plan, the quarterly rolling forecast and the accuracy of the latter
- Review the financial reporting to shareholders and the public
- Issue directions to the internal audit function and, as may be required on a case-by-case basis by the resulting findings, issue directions to the Executive Committee

During the fiscal year, two meetings were held by the Audit Committee. They were attended by the external auditors, internal audit, the CEO and the Chief Financial Officer (CFO). The Committee may invite other Board members, Executive Committee members and specialists to its meetings as required.

Technology Committee

The Technology Committee provides support to the full Board in matters of technology. The Committee has the following responsibilities in particular:

- Monitor international developments in technology and evaluate the emerging trends for their relevance to the Comet Group
- Assess the Group's internal research and development activities
- Ensure the Group holds at least one technology day or equivalent event per year

The Committee meets as often as business requires. During the year under review the Technology Committee held two meetings. In the year, the appraisal of technology sector developments, as well as the development measures taken by the Group, were regularly discussed with the division presidents in the course of the Board's scheduled meetings. Additionally, a group-wide Science Day was held under the leadership of Gian-Luca Bona.

Division of authority

The Board of Directors is responsible for the overall direction and management of the Group and for the supervision of its most senior operational management. The non-delegable and inalienable duties of the Board of Directors are established by section 716a of the Swiss Code of Obligations. The Board's specific responsibilities and scope of authority are set out in the Company's organizational regulations (its Management Organization Manual). In particular, the Board of Directors has the authority to:

- Determine the Group's strategic direction and financial targets and allocate the resources required to achieve them
- Establish the Group's objectives, business policy and strategy, and organizational structure
- Approve the rolling short- and medium-term financial plans
- Approve the acquisition and disposal of subsidiaries and of equity interests in other companies, and approve collaborations with other firms
- Approve the purchase and sale of real estate
- Appoint and withdraw members of the Group's Executive Committee and the presidents of its subsidiaries and exercise oversight and control of their activities

The Board of Directors has delegated all day-to-day management of the Group to the CEO and the Executive Committee, except as otherwise required by law or the Company's Bylaws. The CEO and Executive Committee have the necessary powers to execute the business strategy within the framework set by the Board of Directors. In particular, the CEO has the authority to:

- Manage the Comet Group, implement the Board's strategic directions and decisions, and ensure timely and appropriate reporting to the Board
- Develop business targets within the general objectives established by the Board and present proposals for the rolling forecasts and for the strategic multi-year planning
- Request items of business to be placed on the agenda of Board meetings, prepare such business for transaction by the Board, and ensure the implementation of the Board's decisions
- Implement an internal control and management information system based on the specifications of the Board
- Regularly review the business risks, and establish a Board-approved risk management system for this purpose
- Regularly review the degree of achievement of the financial targets and strategic goals, as well as the Group's liquidity
- The members of the Executive Committee report to the CEO

Monitoring and control with respect to the Executive Committee

The Chairman of the Board may attend the meetings of the Executive Committee and receives the minutes of all its meetings. The Board also receives regular reports on the course of business from the Executive Committee at Board meetings. In the case of extraordinary events, the Executive Committee informs the Board immediately. The CEO and CFO attend all regular meetings of the Board. At least one to two times per year, in the context of Board meetings, the other members of the Executive Committee also report to the Board on their business area.

Management information system

The monthly financial reporting by the Executive Committee on the current course of business and important transactions gives the full Board of Directors the information needed to properly discharge its responsibilities. The standardized internal reporting of the Comet Group consists of the IFRS-based consolidated balance sheet, statement of income and cash flow statement, as well as detailed management reporting. Complementing the monthly consolidated financial statements and a comprehensive range of financial ratios, the management reporting presents and comments upon additional information such as new orders and order backlog, staffing levels and accounts past due, provided in table and chart form. This data is presented both by division and on a consolidated basis for the Group and is compared to the prior year and the rolling forecast. The resulting insights and actions are discussed monthly by the Executive Committee. All monthly financial statements are submitted to the Board of Directors, which discusses them at its meetings.

As a longer-term control tool, a rolling multi-year plan is prepared annually for the subsequent three years. In addition, every quarter, management generates a rolling forecast for the following five quarters.

These forward-looking control tools, which are accompanied by detailed commentary and documented with charts, enable the Board to continually evaluate the financial effectiveness of the adopted business strategy and then to take action if and as required.

Internal audit

Since 2006 the internal audit function is performed on a consulting basis by Robert Kruijswijk, who is based in Elgg, Switzerland. His compensation is determined by the amount of work performed. In the year under review, Robert Kruijswijk carried out various special audits at a number of locations. The reporting is based on the audit priorities newly approved by the Board each year. The nature of the coordination and cooperation between the internal audit function and the external audit firm, complete with the identification of the respective responsibilities, has been specified in writing and approved by the Board.

The following processes were audited in the fiscal year:

- Order fulfilment and customer service process at PCT, IXT and EBT in Flamatt, Switzerland
- IT strategy and IT processes of the Comet Group and their application in Flamatt, Switzerland
- Key processes in the finance, IT and human resources departments at the three subsidiaries in China
- Customer service process at IXS in Hamburg, Germany
- Key processes of the PCT generator development and production site in Stolberg, Germany
- Key processes of the IXS inspection and customer application site in Hattin-gen, Germany

The internal auditor reports directly to the Audit Committee of the Board of Directors, at least twice per year and more frequently as required. On completion of each special audit, an audit report is prepared and is discussed with the Executive Committee and the national lead personnel responsible (typically the local company presidents responsible for the relevant business) and/or the persons directly affected by the audit, in order to initiate the implementation of the planned measures. The internal auditor then prepares a final audit report for the Board of Directors, with a corresponding action plan.

Risk management system

Risk management includes the annual evaluation of strategy by the Board and the assessment by the Executive Committee of insurance cover, of the general business risks and of the major balance sheet items. The approach to risk management is described in a risk strategy approved by the Board and is specified in a written risk management procedure for implementation by the Executive Committee. Under the direction of the CFO, the significant risks in the individual business areas and departments are identified in quarterly working group sessions and systematically described and categorized in a risk matrix. The risks are assessed using a risk rating based on the probability of occurrence and the potential severity of loss, as well as by calculating potential absolute financial risk. For the risks classified as important, action plans are formulated to minimize the probability and/or potential severity of loss. The Executive Committee of the Comet Group normally meets twice per year to review the effectiveness of the actions taken and to regularly update the description of existing risks in the risk portfolio so as to reflect new information and formally recognize new risks. Newly identified risks are added to the portfolio and action plans are formulated to manage them.

In the year under review the Executive Committee held two meetings on risk management, with specialist support by the head of Corporate Quality, Risk & Process Management. Through separate reports, the Audit Committee at each of its meetings is kept advised of the current assessment of the Group's risks.

Internal control system

In the fiscal year, where required, the Comet Group further expanded, trained or documented the existing system of internal control (the "internal control system"). The internal control system is in use at all levels of the enterprise and in all significant locations.

The significant risks and controls are in accordance with the objectives and quality requirements established by the Board of Directors. The staff members responsible for the internal control system have been designated Group-wide, the employees involved have been trained and the control functions clearly assigned. The controls have been integrated in the respective processes and are periodically tested for effectiveness, logical sense, and efficiency. This approach ensures that risks are detected at an early stage and that the necessary countermeasures can be taken swiftly thanks to the internal controls. The introduction of a uniform, systematic process for risk detection and assessment thus enhances the reliability and completeness of bookkeeping and the timeliness and dependability of financial reporting.

In the year-end audit, the independent auditor audits the internal control system of the Comet Group in terms of risks related to financial reporting and provides a report on the findings to the Board's Audit Committee.

Executive Committee

The Executive Committee – the Group’s most senior management below the Board level – is responsible for the operational management of the Comet Group within the powers delegated to it. In June 2018 it was announced that Comet was realigning its organization from an operations perspective and that Thomas Polzer would leave the Group. In July it was announced that Detlef Steck was handing over the management of the X-Ray Systems division and leaving Comet. Thomas Wenzel took over as President of the X-Ray Systems division on December 1. In December it was also announced that Markus Portmann, Chief Financial Officer of the Comet Group, has decided to leave the company. As of December 31, 2018, the Comet Group’s Executive Committee had the following eight members.



René Lenggenhager
(b. 1960, Swiss and Italian citizen)
Chief Executive Officer since May 1, 2017;
also Interim President of ebeam Technologies division

Education

Elektroingenieur HTL degree in electrical and electronics engineering; Dipl. Phys. master’s degree and Dr. sc. nat. doctorate in physics from Swiss Federal Institute of Technology (ETH), Zurich; Executive MBA from University of St. Gallen (HSG)

Professional experience

Until 2000: head of R&D at Landis & Gyr AG, Switzerland, and of Siemens Building Technologies, Switzerland; 2000 to 2015: At Mettler-Toledo, Switzerland, incl. from 2004 as general manager of Global Business Area Laboratory Weighing; from 2015 to beginning of 2017: CEO of Bruker BioSpin Group, Switzerland, Germany and USA



Markus Portmann
(b. 1959, Swiss citizen)
Chief Financial Officer since Aug. 23, 2004

Education

Betriebsökonom FH degree in business administration from Berne University of Applied Sciences (HWV); Controller SIB from Controller Academy, Zurich; Executive MBA from University of Rochester, NY

Professional experience

1992 to 1996: controller at SRG, Switzerland; previously: various management positions in finance; 1996 to 2001: CFO of Der Bund Verlag AG, Switzerland; 2001 to 2004: CFO of Enterprise Communication division at Ascom, Switzerland



Eric Dubuis
(b. 1964, Swiss citizen)
Chief Information Officer since Oct. 17, 2005

Education

Lic. phil. nat. degree in applied mathematics from University of Berne; Dr. phil. nat. doctorate in computer science from University of Berne; Executive MBA from University of Rochester, NY

Professional experience

1998 to 2000: MTS and technical manager, Lucent Technologies, Bell Labs, NJ; previously: various positions in software development; 2000 to 2003: director, Xebio Communications, Inc., NJ; 2003 to 2005: senior software engineer, Akadia AG, Switzerland



Michael Kammerer
(b. 1961, Swiss citizen)
President of Plasma Control Technologies division since Jan. 1, 2008

Education

Eidg. dipl. Einkäufer degree in procurement, SVME; MBA in strategy and procurement management from University of Birmingham, UK

Professional experience

1997 to 2000: head of purchasing and logistics, Von Roll Betec AG, Switzerland; 2000 to 2002: head of purchasing and logistics, Swisscom Solutions AG, Switzerland; 2002 to 2007: head of purchasing and supplier quality assurance, automotive, Saia-Burgess AG, Switzerland/Johnson Electric, Hong Kong



Thomas Polzer
(b. 1965, German citizen)
Chief Operating Officer
until June 13, 2018

Education

Dipl. Ing. (BA) degree in mechanical engineering, Heidenheim, Germany; Executive MBA in corporate management from University of Augsburg, Germany

Professional experience

2002 to 2005: managing director, ASML Optics (USA); previously: various operational positions at Zeiss group; 2005: VP quality, ASML B.V., Netherlands; 2006 to 2008: EVP service centers, Carl Zeiss AG, Germany; 2009 to 2017: CEO, Carl Zeiss Jena GmbH, Germany



Prisca Hafner
(b. 1967, Swiss citizen)
Chief Human
Resources Officer
since Jan. 1, 2018

Education

Eidg. dipl. Bankkauffrau diploma in banking; Certified Advanced Studies in Human Resource Management and Executive Coaching (Institute of Applied Psychology, Zurich University of Applied Sciences, Zurich)

Professional experience

1997 to 2007: Credit Suisse and Credit Suisse Asset Management (Switzerland, UK, Luxembourg) in various international and local HR leadership and expert roles and in various divisions; 2008 to 2016: at Oerlikon Balzers and Oerlikon Surface Solutions as global head of human resources, including post-merger integration project (Switzerland); 2017: sabbatical and volunteer work in Switzerland and abroad



Stephan Haferl
(b. 1972, Swiss and Norwegian citizen)
President of
X-Ray Modules
division since
Jan. 1, 2018

Education

Dr. sc. tech. doctorate in mechanical and process engineering from ETH Zurich; Advanced Management Program, Wharton Business School, University of Pennsylvania, PA

Professional experience

2002 to 2007: various management positions at the Bartec Group, Switzerland
From 2007: various management positions in Comet's X-Ray Technology business (VP Supply Chain, VP of R&D, General Manager of Industrial X-Ray Technologies (IXT))



Thomas Wenzel
(b. 1965, German citizen)
President of
X-Ray Systems
division since
Dec. 1, 2018

Education

Dipl. Informatiker degree in computer science (University of Erlangen, Germany); Dr. Ing. doctorate in materials science and materials engineering (Saarland University, Germany)

Professional experience

Until 2008 was group leader, development of x-ray inspection systems and, from then until 2015, department head, Process-Integrated Test Systems, Fraunhofer Development Center for X-Ray Technology, Germany; from 2015: at Comet as Technology Scout and Senior CT Expert

Activities and interests outside the Group

Section 27 of the Bylaws, which have been revised for compliance with the OAEC and approved by the Shareholder Meeting, specifies the allowable number of other, external positions that members of the Executive Committee may hold on top management or supervisory bodies, as follows:

- Members of the Executive Committee may each not hold more than one external position on the top management or supervisory body of an exchange-traded (i.e., listed) company and not more than four such external positions in non-listed companies.
- Not more than ten such positions may be held in associations, non-profit foundations, family foundations and employee pension funds.
- Positions in companies controlled by Comet Holding AG, or positions controlled by it, are not subject to restriction.

The members of the Executive Committee did not hold positions outside the Comet Group on management or supervisory bodies of significant Swiss or foreign private sector or public sector companies, institutions or foundations at December 31, 2018. Some members of the Executive Committee held board positions at subsidiaries of the Comet Group.

Related party transactions

There were no business transactions with parties related to members of the Executive Committee.

Interim management contracts

No interim management contracts existed in the Comet Group.

Compensation, stock ownership and loans

OAEC-related provisions in the Bylaws

Detailed information on the compensation of the Board of Directors and Executive Committee under section 663c of the Swiss Code of Obligations is provided from page 153, in the separate Compensation Report section of this annual report.

Sections 21 to 28 of the Bylaws govern compensation approval, the compensation of the Board of Directors and Executive Committee, the composition of performance-based compensation, and the terms of stock awards.

Every year, the Board of Directors submits its proposals for the maximum aggregate amounts of compensation for approval to the Annual Shareholder Meeting:

- The compensation of the Board of Directors for the coming term of office
- The fixed compensation of the Executive Committee for the next fiscal year after the year of the Annual Shareholder Meeting
- The performance-based compensation of the Executive Committee for the last fiscal year before the year of the Annual Shareholder Meeting, consisting of an annual variable element under a short-term incentive plan (STIP) and a multi-year variable element under a long-term incentive plan (LTIP).

To any new member joining the Executive Committee during a period for which the Shareholder Meeting has already approved the compensation, Comet Holding AG or its subsidiaries are authorized to pay an additional amount if the already approved maximum aggregate amount is not sufficient to cover the compensation. The aggregate additional amount per compensation period must not exceed 40% of the approved maximum aggregate amount of compensation of the Executive Committee.

The Bylaws of the Company do not contain specific provisions on the granting of loans, other credit and pension benefits to members of the Board of Directors and Executive Committee or their related parties.

The composition of the performance-based compensation is governed by section 24 of the Bylaws as follows:

- The aggregate amount of variable compensation paid to all members of the Executive Committee of the Comet Group is based on a percentage of the consolidated net income of the Comet Group.
- Part of the aggregate amount (between 50% and 75%) is paid out annually in cash (short-term incentive).
- Part of the aggregate amount (between 25% and 50%) is paid out annually in stock of the Company with a three-year holding period (short-term incentive).
- This annually determined number of shares with a holding period can, depending on the degree of achievement of medium-term performance targets, be supplemented with additional shares that are not subject to a holding period (long-term incentive). The evaluation of achievement of these medium-term performance targets takes into account the degree of target achievement in a peer group of comparable companies.
- The Nomination & Compensation Committee specifies the details in a written regulation that requires the approval of the full Board.

The terms and procedures of stock compensation settlement are governed by section 25 of the Company's Bylaws as follows:

- The grant price of the stock is calculated as the average share price of Comet Holding AG in the period between (and excluding) the date of the annual results press conference and the date of the Annual Shareholder Meeting.
- The Board of Directors may terminate the current holding periods early (for example, in the event of a change of control).

Decision authority and responsibility for compensation

The design and regular review and evaluation of the compensation system are the responsibility of the Nomination & Compensation Committee (NCC).

Within the limits of the maximum aggregate amounts approved by the Annual Shareholder Meeting, the Board of Directors once annually prepares the compensation proposals, as follows:

Decision on	CEO	NCC	Board of Directors	Shareholder Meeting
Compensation policy and guidelines under the Bylaws		Proposes	Approves	
Maximum aggregate compensation of Board of Directors		Proposes	Reviews	Binding vote
Individual compensation of Board members		Proposes	Approves	
Fixed compensation of CEO		Proposes	Approves	Binding vote as part of vote on aggregate compensation of Executive Committee
Fixed compensation of other members of Executive Committee	Proposes	Reviews	Approves	Binding vote as part of vote on aggregate compensation of Executive Committee
Profit-sharing plans of CEO		Proposes	Approves	Binding vote as part of vote on aggregate compensation of Executive Committee
Profit-sharing plans of the other members of the Executive Committee	Proposes	Reviews	Approves	Binding vote as part of vote on aggregate compensation of Executive Committee

On behalf of the Board of Directors, the external audit firm annually reviews the conformity of the compensation decisions with the regulations of the respective compensation plans for the Board and Executive Committee, and the compliance with the maximum aggregate amounts approved by the Annual Shareholder Meeting.

Market comparison criteria

The Comet Group strives for market levels of compensation, and compensation packages are periodically evaluated by specialized consulting firms against benchmarks. This applies to the compensation both of the Board and of the Executive Committee. The Nomination & Compensation Committee periodically compares the mix of the individual components of remuneration and the amount of total compensation with the respective industry environment and, taking its findings into account, submits proposals to the Board of Directors.

Structure of the compensation system

With effect from January 1, 2017, the Board of Directors of Comet Holding AG established a revised compensation system that applies worldwide. This framework governs the profit-sharing compensation for all employees eligible to participate in the short-term incentive plan (STIP) and the long-term incentive plan (LTIP). The details of the system are set out in a Board-approved regulation. In the year under review, the profit-sharing criteria under the STIP were the sales growth and net income of the Comet Group. The Board of Directors itself receives only a fixed retainer.

Compensation system for employees

The compensation system for the employees of the Comet Group (including the Executive Committee) has two main elements: All employees receive fixed compensation, and all employees eligible for profit-sharing under the STIP may earn a performance-based pay component.

Calculation of total profit-sharing pool

The total amount of STIP profit-sharing compensation is determined as a percentage of the consolidated net income of the Comet Group. This percentage rate is dependent upon the Group's rate of sales growth compared with the prior year. For fiscal year 2018 the percentage rate was determined according to the following model (unchanged from the prior year):

Sales growth	Percentage of net income
Less than 5%	15%
5% – 15%	Linear increase between 15% and 25%
More than 15%	25%

At least 80% of the profit-sharing pool is allocated among the employees (including the members of the Executive Committee of the Comet Group), using a general allocation formula. Up to an aggregate maximum of 20% of the profit-sharing pool may be allocated selectively to individual employees (including the members of the Executive Committee), using an individual allocation formula. This is to enable the Board and the CEO to recognize individual performance distinctively. Performance is evaluated in the sole discretion of the Board and CEO, at the end of the fiscal year. The unused portion of the individual allocation pool is also distributed by the general allocation formula.

Compensation groups and calibration

The employees eligible for profit-sharing are assigned to one of five compensation groups. These five groups are the CEO, the other members of the Executive Committee, and (subdivided into three groups) the other eligible employees. Each compensation group is assigned a different multiplier. Within a given compensation group, the same multiplier is used for each member of the group. This multiplier represents the weighting assigned to the member of the compensation group in the allocation of the total profit-sharing pool. The values of the individual multipliers are set by the Board of Directors of Comet Holding AG. For each employee the percentage share of the total profit-sharing pool can thus be calculated, based on the individual's position (which determines the assignment to a compensation group) and gross annual base salary.

	The Board of Comet Holding AG has the authority to adjust the calibration of the profit-sharing so as to reflect the performance of the Comet Group. When doing so, the Board ensures the adjustment is fair to all participants. The calibration is normally reviewed every three years and adjusted if appropriate.
Precondition for payment of profit-sharing compensation	A precondition for paying any profit-sharing compensation is that, after the accrual of this distribution, the Comet Group is still able to report positive consolidated net income.
Compensation system for the Board of Directors	Every year, the Board of Directors submits its proposal for the maximum aggregate amount of Board compensation to the Annual Shareholder Meeting for approval.
Responsibility and procedure	The amounts of Board members' compensation are set to reflect the industry environment and are regularly reviewed against benchmarks. The latest such review was performed in fiscal year 2014. The compensation details are specified in a Board-approved compensation plan in the form of a regulation.
Fixed retainer	For their work on the Board of Directors, the Board members receive a fixed retainer. A flat expense allowance is paid, in cash.
Stock compensation	Two-thirds of the fixed retainer is paid in cash and one-third is paid in shares of stock. The stock awarded is subject to a holding period of three years during which it cannot be sold.

Overview of compensation

In CHF

	Cash portion of retainer (two-thirds)	Stock portion of retainer (one-third)	Total reported value of compensation	Flat expense allowance (additional)
Chairman of the Board	132,000	66,000	198,000	8,000
Member of the Board	66,000	33,000	99,000	4,000

Additionally, the actual employer contributions to social security plans are paid.

Joining and departure of Board members	Board members' normal term of office begins on the date following the day of the Annual Shareholder Meeting that elects them and ends on the date of the next Annual Shareholder Meeting. When a new member joins the Board of Directors, the compensation is paid on a pro-rated basis from the day of election. If a member leaves the Board before the end of a term, the retainer is calculated on a pro-rated basis to the date of departure. In the case of pro-rated retainers as well, two-thirds is paid in cash and one-third is paid in stock.
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Compensation system for the Executive Committee

The compensation of the Executive Committee is specified in a Board-approved regulation. Every year, the Board of Directors submits its proposals for the maximum aggregate amounts of Executive Committee compensation to the Annual Shareholder Meeting for approval, specifically:

- The fixed compensation of the Executive Committee for the next fiscal year after the year of the Annual Shareholder Meeting
- The performance-based compensation of the Executive Committee for the last fiscal year before the year of the Annual Shareholder Meeting

Type of compensation	Form of delivery	Purpose	Drivers
Fixed compensation	Monthly payment in cash	Pay for position	Nature and level of position, individual qualifications, market conditions
Short-term incentive plan (STIP)	Annual payment in cash	Profit-sharing based on corporate financial results	Corporate financial results in terms of profitable growth
Short-term incentive plan (STIP)	Annual payment in stock (with holding period)	Short-term alignment with the interests of shareholders	Corporate financial results in terms of profitable growth
Long term incentive plan (LTIP)	Annual payment in stock (without holding period)	Long-term alignment with the interests of shareholders	Corporate financial results relative to the peer group in terms of achievement of two performance targets for growth and profitability
Social security	Company pension, state old age and survivors (AHV) and unemployment insurance (ALV) plans, short-term disability and accident insurance	Risk protection	Local legislation and voluntary benefits in line with market
Flat expense allowance	Monthly payment in cash	Defraying of minor expenses	Local legislation, tax authorities
Benefits in kind	Costs paid directly by company or reimbursed in cash	Pay for position	Local market practice

Responsibility and procedure

The Nomination & Compensation Committee prepares a specific proposal for the amounts of the individual fixed compensation of the CEO and each of the other Executive Committee members, for approval by the full Board of Directors. The CEO recommends the amounts of fixed compensation for the other Executive Committee members to the NCC. The NCC also bases its proposals on general experience and on levels of compensation at peer companies. The full Board periodically reviews, sets and approves the compensation system, based on the proposal of the NCC. The latest such review was performed in fiscal year 2016 with support from the consulting firm Hay Group. Hay Group has no other engagements with the Comet Group.

The profit-sharing compensation is based on the regulations approved by the Board of Directors. The members of the Executive Committee do not attend the related Board meetings and are not entitled to vote on their compensation.

Fixed compensation

All members of the Executive Committee receive fixed compensation that is paid monthly, as well as a flat expense allowance. The fixed compensation is determined by the individual's amount of responsibility, role, performance, experience and skills, and by local market conditions. These elements of compensation are paid in cash.

Short-term profit-sharing compensation (STIP)

In addition to the fixed compensation, the Comet Group's employee profit-sharing plan provides a performance-related short-term incentive pay component (STIP), of which one-third is paid in stock. The stock awarded is subject to a holding period of three years during which it cannot be sold. The balance of the STIP amount is paid in cash.

Calculation of short-term profit-sharing compensation (STIP)

An individual Executive Committee member's share of the total profit-sharing pool (under the STIP) is calculated using the following model:

- a) Calculation of individual's percentage share of total profit-sharing pool

$$\frac{\text{Gross base salary of employee} \times \text{multiplier} \times 100}{\text{Total weighted gross salaries of all staff}^1} = \% \text{ share of total profit-sharing pool}$$

1 Represents the aggregate of the multiplier-weighted gross salaries of all employees and the retainers of the Board of Directors.

- b) Calculation of effective profit-sharing compensation

$$\% \text{ share of total profit-sharing pool} \times \text{amount of profit-sharing pool actually being distributed}$$

The calculation of an individual's effective profit-sharing compensation is based on that portion of the total profit-sharing pool which has been allocated by the general allocation formula. In addition to that general portion, the Board of Directors may award an individual share of profit. Profit-sharing awards to the CEO and the other members of the Executive Committee are approved by the Board, which in turn proposes them to shareholders for ratification at the Annual Shareholder Meeting in a binding vote as part of the total compensation of the Executive Committee.

Joining and departure of Executive Committee members

Members joining the Executive Committee intra-year participate in profit-sharing on a pro-rated basis. In the event of departures from the Executive Committee, the amount due is calculated based on the approved consolidated financial statements and is paid out in stock and cash upon approval of the profit-sharing compensation by the Annual Shareholder Meeting.

Terms of employment

The members of the Executive Committee have employment agreements with a notice period of not more than nine months. There is no entitlement to termination benefits of any kind.

Disbursement of profit-sharing compensation

The members of the Executive Committee receive one-third of their short-term profit-sharing compensation in stock. The balance of the STIP amount is paid in cash. A precondition for paying any profit-sharing compensation is that consolidated net income is still positive after the accrual of this compensation.

Long-term profit-sharing compensation (LTIP)

The aim of the long-term incentive plan (LTIP), which was introduced in fiscal year 2017, is to tie the CEO and the other members of the Executive Committee more closely to the company and to align part of their compensation more closely with the achievement of long-term corporate targets. Stock transferred under the LTIP does not have a holding period.

Structure of the LTIP

The amount of the LTIP compensation is dependent on the value of the stock earned as short-term profit-sharing compensation (STIP) in the previous three years. LTIP stock is granted each year inasmuch as the STIP performance targets for the previous three years were achieved. The LTIP amount is based on performance against the following two targets:

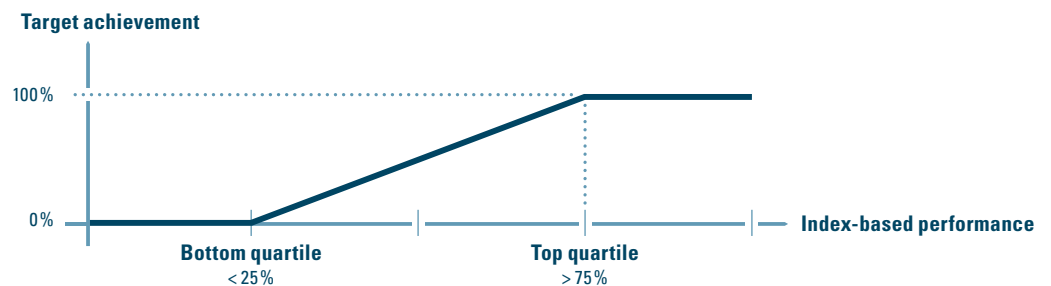
- a growth target (T1) and
- a profitability target (T2)

Target achievement is measured relative to a group of comparable listed Swiss manufacturing companies.

Calculation of the LTIP

For both targets, target achievement is assessed by measuring the index-based relative performance, thus comparing the Comet Group’s performance with that of the companies in the peer group. The degree of target achievement is 0% if the Comet Group’s result is in the bottom quartile of the index (i.e., among the 25% of companies with the lowest performance). Target achievement is 100% (the maximum) if the result attained is in the top quartile of the index (i.e., in the top 25% of all companies). When the result lies between these two outcomes, the percentage of target achievement is interpolated on a straight-line basis between 0% and 100%.

Target achievement is ascertained by an independent external party.



The value of the stock granted under the LTIP is based on the average annual achievement of the two performance targets (T1 and T2, in percent) multiplied by the average annual value of the stock (VS) actually transferred to employees in the preceding three years as STIP short-term profit-sharing compensation, multiplied by a calibration factor C:

$$LTIP = (T_1 + T_2)_s * V_s * C$$

Growth target T1: The growth target is a specified three-year compound annual growth rate (CAGR) of sales for the respective last three years. The performance against this measure is compared with that of the peer group (a group of manufacturing firms listed on the Swiss stock exchange). The achievement of the growth target is thus measured by the average CAGR of the Comet Group over the last three years in relation to the results of the peer group.

Profitability target T2: The profitability target is a specified average ratio of ROCE to WACC for the respective last three years (ratio of return on capital employed to weighted average cost of capital). The performance against this measure is compared with that of the peer group (a group of manufacturing firms listed on the Swiss stock exchange). The achievement of the profitability target is thus measured by the average ROCE/WACC ratio of the Comet Group over the last three years in relation to the results of the peer group.

Calibration factor C: The calibration factor is set by the Board of Directors. The calibration is normally reviewed every three years and, when necessary, adjusted so that the LTIP corresponds to the performance of the company and the purpose of the LTI plan. When doing so, the Board ensures the adjustment is fair to all participants.

Calculation of the value V_s of the average annual amount of STIP stock transferred: The amount of stock transferred under the LTIP is based on the value of the stock transferred under the short-term profit-sharing plan (STIP) over the last three years. That value of transferred STIP stock is measured as of the time of its transfer.

For determining the amount of LTIP stock to be transferred in year n , the underlying average annual value of STIP stock, V_s , is calculated as follows:

$$V_s = \frac{1}{3}(V_{n-2} + V_{n-1} + V_n)$$

Where V_{n-2} represents the value of the stock transferred in year $n-2$, V_{n-1} represents the value of the stock transferred in year $n-1$, and V_n represents the value of the stock transferred in year n .

Determination of target achievement

Target achievement is determined at the end of each year. As the data for the peer group companies only becomes available with a time lag, the current year-end data for the Comet Group is compared with that data for the peer group which is available at December 31.

Intra-year joining or departure

The amount of stock to be transferred under the LTIP is based on the amount of stock already actually transferred under the STIP short-term profit-sharing plan and is thus inherently pro-rated in the case of an intra-year hire or promotion. Employees who have given or received notice of termination of employment are not entitled to the LTIP compensation for the year of their departure.

Disbursement of the LTIP

The long-term profit-sharing compensation is disbursed on the basis of the approved consolidated financial statements and the approval of the profit-sharing compensation by the Annual Shareholder Meeting of Comet Holding AG in the subsequent year.

Changes of control

In the event of a public tender offer for the stock of Comet Holding AG, the LTIP compensation for the fiscal years that are not yet compensated under the LTIP at the time the public tender offer is validly made is paid entirely in cash instead of stock.

Upper limit for profit-sharing compensation

There are individual upper limits on the total profit-sharing compensation of the CEO and the other members of the Executive Committee of the Comet Group. The upper limit thus caps the individual's combined total of short-term (STIP) and long-term (LTIP) profit-sharing compensation. For the CEO this maximum (the upper limit for the combined total of STIP compensation and LTIP stock) is 200% of the fixed compensation. For each of the other members of the Executive Committee, this upper limit for the combined total of STIP compensation and LTIP stock is 150% of the fixed compensation.

Calculation of grant price for share awards to the Board of Directors and Executive Committee

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. The stock transferred to the Executive Committee members under the STIP, and the stock transferred to the Board members, is subject to a holding period of three years from the date of the award during which it cannot be sold. All other shareholder rights are already effective during the holding period, including rights to dividends and similar distributions and the right to participate in Shareholder Meetings. The stock transferred to the Executive Committee members under the LTIP does not have a holding period.

Shareholders' participation rights

Shareholders' participation rights (such as rights with respect to voting), are set down in the Swiss Code of Obligations, and this legal framework is supplemented by provisions in the Bylaws of the Company. The Bylaws of Comet Holding AG, which have been adjusted to reflect the legal requirements under the OAEC, can be found on the Company's website at www.comet-group.com/investors/corporate-governance.

Registration in the share register

In accordance with section 12 of the Bylaws, in the notice of the Shareholder Meeting the Board of Directors announces the record date (at which registration in the share register is required for participation in and voting at the meeting) and the details of the written and electronic proxies and instructions.

The share register is closed to new entries from then until and including the day of the Shareholder Meeting. No exception to this rule was made in the year under review nor at any previous Shareholder Meeting. Shareholders who sell their stock before the Shareholder Meeting are not entitled to vote the shares sold.

Voting rights restrictions

Each share that is registered carries one vote, subject to the provisions on nominee shareholders in section 5 of the Bylaws. The Board of Directors registers nominees as holding voting shares only up to a maximum of 5% of the capital stock recorded in the Swiss commercial register of companies.

Proxy voting

At the Annual Shareholder Meeting, the shareholders elect an independent proxy. The term of office of the independent proxy is one year, ending at the conclusion of the next Annual Shareholder Meeting. Re-election for consecutive terms is permitted.

The Board of Directors ensures that the shareholders have the ability to also use electronic means to authorize and instruct the independent proxy.

A shareholder may be represented at the Shareholder Meeting by the independent proxy, by the shareholder's legal representative or – under a written power of attorney – by another shareholder entitled to vote. Powers of attorney and instructions may be given in writing or, to the independent proxy, may also be given electronically.

Quorums under the Bylaws

Except as otherwise required by law, the Shareholder Meeting passes resolutions and conducts its voting by an absolute majority of the votes represented, excluding blank or invalid ballots. A second round of voting, if any, is decided by a relative majority. The Bylaws of Comet Holding AG do not provide for resolutions that would require a different type of majority in order to be passed, with the exception of resolutions named in section 704 of the Swiss Code of Obligations.

Calling of the Shareholder Meeting

The Shareholder Meeting is called by the Board of Directors or, if necessary, by the independent auditors. Notice of the Shareholder Meeting is sent to the shareholders of record by mail at least 20 days before the meeting date.

Placing business on the Shareholder Meeting agenda

Shareholders' requests under section 699 para. 3 of the Swiss Code of Obligations to place business on the Meeting agenda, and the actual shareholder proposal involved, must be submitted to the Board of Directors in writing no later than 45 days before the Shareholder Meeting in question.

Changes of control and takeover defenses

Requirement to make a public tender offer

Under section 32 para. 1 of the Stock Exchange Act (BEHG), any party whose shareholding reaches 33 $\frac{1}{3}$ % or more of all voting rights must make a public tender offer. The Bylaws of Comet Holding AG contain neither an opting-up clause nor an opting-out clause; this means that they neither raise this percentage threshold, nor waive the requirement of a tender offer.

Provisions on changes in control

With respect to members of the Board of Directors and the Executive Committee, there are no contractual obligations of unusually long duration, nor provisions for termination benefits, that would result from a change of control. Under the stock ownership plan, the Board of Directors may in its discretion decide to early-terminate the holding period for the stock awarded as performance-based compensation. In all cases, the holding period automatically ends at the time of termination of employment if the termination is the result of a change in control.

Auditors

Duration of independent auditors' mandate and tenure of lead audit partner

Ernst & Young AG (EY), Berne, have been the independent auditors of Comet Holding AG since 1999. The lead audit partner, Roland Ruprecht, has been responsible for the engagement since fiscal year 2017. The rotation cycle for the lead audit partner at EY is seven years. The independent audit firm is elected by the Shareholder Meeting for one fiscal year at a time.

Audit fees

EY received the following compensation for services in connection with auditing the consolidated financial statements and as the independent audit firm for most Group companies:

In thousands of CHF	2018	2017
Audit fees	359	288

Including the other audit firms, the total audit fees in the year under review amounted to CHF 435 thousand (prior year: CHF 362 thousand). The audit fees are set annually upon discussion with the Audit Committee and are based on the audit scope at the individual Group companies, any special in-depth audits, and the auditing of protection against specifically identified risks.

Other fees

In the fiscal year, EY received the following compensation for consulting services in connection with accounting and tax matters:

In thousands of CHF	2018	2017
Audit-related consulting services	16	34
Tax consulting services	103	40
Other consulting services	0	0
Total consulting services	118	74

Monitoring of the independent auditors by the Board of Directors

The Audit Committee of the Board of Directors annually reviews the performance, compensation and independence of the audit firm. The Committee also examines the scope of the independent audit, reviews action plans developed to resolve any issues identified in the audit, and recommends candidate independent auditors to the Board to propose for election by the Shareholder Meeting. The Board has not specified a fixed rotation cycle. In selecting the external auditors, particular importance is attached to independence and documented experience.

After the first six months of the year, the Audit Committee at its meeting discusses the unaudited half-year results with the independent auditors. In addition, the annual financial statements are planned and the auditing costs for the fiscal year are approved. Additional meetings are held as needed. After the audit of the annual financial statements, the Audit Committee convenes for a meeting at which it discusses the audited annual report for the fiscal year with the independent auditors. The audit firm reports its findings on the basis of a comprehensive report to the Board of Directors and through the reports of the independent auditors to the Shareholder Meeting. The CEO, CFO and internal auditor take part in the meetings of the Audit Committee. During the year under review the Audit Committee held two meetings.

Communication policy

The Comet Group informs its shareholders, the media, financial analysts and other stakeholders with the greatest possible transparency and based on the principle of equal treatment. The Group publishes annual reports and half-year reports that are prepared in compliance with Swiss stock corporation law and International Financial Reporting Standards (IFRS).

As well, information is provided to additional audience segments via the following events:

- To shareholders: in connection with the Shareholder Meeting
- To media representatives and financial analysts: through press conferences
- To institutional investors: through road shows and an annual investor day

Announcements about events that fall under the ad-hoc disclosure requirements of SIX Exchange Regulation (a division of the SIX Swiss Exchange) are published immediately.

Key dates

The dates of the most important publications and events are given below:

End of fiscal year	December 31, 2018
Annual results press conference	March 14, 2019
Publication of annual report	March 14, 2019
Annual Shareholder Meeting	April 25, 2019
End of first half of fiscal year	June 30, 2019
Publication of half-year report	August 15, 2019

Publication media

Comet Holding AG publishes semiannual media releases to update investors on its business and financial results. The annual report is sent to shareholders as a hard copy on request after they receive the notice of the Annual Shareholder Meeting.

For disclosure announcements for stock exchange purposes, Comet Holding AG uses the electronic publication platform operated by the SIX Swiss Exchange. The Group's website at www.comet-group.com offers a wealth of information, including details of the Comet Group's business activities and access to the annual report, media releases, presentations for press conferences, and the Bylaws of Comet Holding AG. As well, anyone may register on the website to automatically receive all press releases in electronic form.

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Compensation Report 2018

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01 Introduction

This compensation report conforms to the transparency requirements of section 663c of the Code of Obligations and the corporate governance information standards of SIX Exchange Regulation (a division of the SIX Swiss Exchange).

The compensation report discloses the compensation of the members of the Board of Directors and Executive Committee for fiscal years 2017 and 2018. In addition, the shareholdings of the Board and Executive Committee (disclosed in accordance with the Swiss Code of Obligations) are presented in the notes to the separate financial statements of Comet Holding AG on page 99, and the expense for compensation (disclosed in accordance with International Financial Reporting Standards) is presented in the consolidated financial statements of Comet Holding AG on page 86.

The annual report was prepared in full compliance with the disclosure requirements of the Ordinance Against Excessive Compensation at Listed Companies (OAEC).

02 OAEC-related provisions under the Bylaws

Sections 21 to 28 of the Bylaws govern compensation approval, the compensation of the Board of Directors and Executive Committee, the composition of performance-based compensation, and the terms of stock awards.

Every year, the Board of Directors submits to the Annual Shareholder Meeting for approval its proposal for the maximum aggregate amounts of compensation of the Board of Directors and of the Executive Committee.

03 Compensation policy**03.1 Principles**

The compensation system is designed to attract and retain excellent management and specialist staff.

The Comet Group seeks to set compensation levels that reflect the individual levels of skill and responsibility in the Group and that are comparable to levels at other employers competing with it for talent. This aim is supported by a fair system of remuneration designed to match levels of pay offered by listed peer companies. No signing (hiring) bonuses or termination benefits are provided.

To promote the focus on corporate strategy and closer ties to the Group, a profit-sharing system is in place, which is based on criteria determined by the Board of Directors. The profit-sharing compensation of the Executive Committee members is in the form of a short-term and a long-term performance-based element and is paid partly in shares of Comet stock. The other employees are paid their profit-sharing compensation entirely in cash. The compensation system for the Board of Directors does not have a performance-based element.

The compensation elements thus take into account short-term and long-term aspects of sustainable company performance and development. The Comet Group is confident that its remuneration architecture creates an effective link between compensation and performance that generates lasting value for shareholders.

- 03.2 Compensation 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 of the Company. The stock is subject to a holding period of three years from the date of the award during which it cannot be sold. The reported compensation includes the cash portion of the retainer, the value of the stock portion, and the employer contributions to social security plans.
- 03.3 Compensation of the Executive Committee**
- 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 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 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. Employer contributions to social security plans are presented separately. The members of the Executive Committee have employment agreements with a notice period of not more than nine months. No signing (hiring) bonuses or termination benefits are provided.
- 03.4 Stock ownership plan (STIP and LTIP)**
- The Company's stock ownership plan for the Executive Committee members consists of the STIP and LTIP and is designed to heighten the commitment of the CEO and the other Executive Committee members to the Comet Group. The requirement for this group of individuals to draw part of their profit-sharing compensation as stock is detailed in a separate regulation. 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. The stock transferred under the STIP is subject to a holding period of three years from the date of the award, during which it cannot be sold. However, all other shareholder rights are effective during the holding period, including rights to dividends and similar distributions and the right to participate in Shareholder Meetings. The stock awarded under the LTIP does not have a holding period. Except as otherwise required by law, in the event of an attempted change of control of Comet Holding AG, the holding period on stock ends when a public tender offer is validly made.
- 03.5 Shareholders' say on pay**
- Compensation-related provisions are specified in the Bylaws and documented in corresponding regulations of the Comet Group.
- Under the OAEC and the Bylaws of Comet Holding AG, the amounts of the respective aggregate compensation of the Board of Directors and Executive Committee require shareholder approval in a binding vote at the Shareholder Meeting. Specifically, under section 21 of the Bylaws of Comet Holding AG, shareholders vote on the following:
- The compensation of the Board of Directors for the coming term of office
 - The fixed compensation of the Executive Committee for the next fiscal year after the year of the Annual Shareholder Meeting
 - The performance-based compensation of the Executive Committee for the last fiscal year before the year of the Annual Shareholder Meeting

The prospectively binding voting in combination with retroactive approval of the performance-related remuneration give shareholders an extensive “say on pay”.

04 Determination of compensation

04.1 Decision authority and responsibility for compensation

The design and regular review and evaluation of the compensation system are the responsibility of the Nomination & Compensation Committee (NCC).

Subject to the limits of the maximum aggregate amounts approved by the Annual Shareholder Meeting, the Board of Directors once annually prepares the compensation proposals, as follows:

Decision on	CEO	NCC	Board of Directors	Shareholder Meeting
Compensation policy and guidelines under the Bylaws		Proposes	Approves	
Maximum aggregate compensation of Board of Directors		Proposes	Reviews	Binding vote
Individual compensation of Board members		Proposes	Approves	
Fixed compensation of CEO		Proposes	Approves	Binding vote as part of vote on aggregate compensation of Executive Committee
Fixed compensation of other members of Executive Committee	Proposes	Reviews	Approves	Binding vote as part of vote on aggregate compensation of Executive Committee
Profit-sharing plans of CEO		Proposes	Approves	Binding vote as part of vote on aggregate compensation of Executive Committee
Profit-sharing plans of the other members of the Executive Committee	Proposes	Reviews	Approves	Binding vote as part of vote on aggregate compensation of Executive Committee

On behalf of the Board of Directors, the external audit firm annually reviews the conformity of the compensation decisions with the regulations of the respective compensation plans for the Board and Executive Committee, and the compliance with the maximum aggregate amounts approved by the Annual Shareholder Meeting.

04.2 Nomination & Compensation Committee (NCC)

The Nomination & Compensation Committee is made up of two members of the Board, who are elected to the Committee yearly by the Annual Shareholder Meeting. In the year under review these members were Rolf Huber (chairman) and Mariel Hoch.

The term of office is one year. Re-election for consecutive terms is permitted. The NCC prepares all agenda items related to the nomination and compensation of Board members and Executive Committee members. The NCC itself does not make decisions, but prepares proposals for the approval of the full Board of Directors.

The Committee has the following responsibilities in particular:

- Attend to the compensation policy for the remuneration of the Board of Directors and Executive Committee and to the compensation structure of the Comet Group
- Produce the proposed compensation report and support the Board of Directors in preparing resolutions for the Annual Shareholder Meeting for the approval of compensation
- Develop proposals for guidelines for the compensation of the Board of Directors and Executive Committee
- Review stock ownership plans and recommend adjustments as appropriate
- Propose new Board members and the Chief Executive Officer for appointment
- Provide support to the CEO in evaluating candidates for the Executive Committee

Additional responsibilities may be assigned to the Committee as required. The Nomination & Compensation Committee convenes for at least two regular meetings per year. The NCC may hold additional meetings at its discretion. The Committee may invite other Board members, Executive Committee members and specialists to its meetings as required.

In the year under review the Committee, besides several telephone conferences, held three physical meetings, all of which were attended by both of its members. The meetings were also partly or fully attended, in an advisory role, by the CEO and the Chief Human Resources Officer.

04.3 Market comparison criteria

The Comet Group strives for market levels of compensation, and compensation packages are periodically evaluated by specialized consulting firms against benchmarks. This applies to the compensation both of the Board and of the Executive Committee. The Nomination & Compensation Committee periodically compares the mix of the individual components of remuneration and the amount of total compensation with the respective industry environment and, taking its findings into account, submits proposals to the Board of Directors.

05 Structure of the compensation system

With effect from January 1, 2017, the Board of Directors of Comet Holding AG established a revised compensation system that applies worldwide. This framework governs the profit-sharing compensation for all employees eligible to participate in the short-term incentive plan (STIP) and the long-term incentive plan (LTIP). The details of the system are set out in a Board-approved regulation. In the year under review, the profit-sharing criteria under the STIP were the sales growth and net income of the Comet Group. The Board of Directors itself receives only a fixed retainer.

05.1 Compensation system for employees

The compensation system for the employees of the Comet Group (including the Executive Committee) has two main elements: All employees receive fixed compensation, and all employees eligible for profit-sharing under the STIP may earn a performance-based pay component.

05.1.1 Calculation of total profit-sharing pool

The total amount of STIP profit-sharing compensation is determined as a percentage of the consolidated net income of the Comet Group. This percentage rate is dependent upon the Group's rate of sales growth compared with the prior year. For fiscal year 2018 the percentage rate was determined according to the following model, unchanged from the prior year:

Sales growth	Percentage of net income
Less than 5%	15%
5% – 15%	Linear increase between 15% and 25%
More than 15%	25%

At least 80% of the profit-sharing pool is allocated among the employees (including the members of the Executive Committee of the Comet Group), using a general allocation formula. Up to an aggregate maximum of 20% of the profit-sharing pool may be allocated selectively to individual employees (including the members of the Executive Committee), using an individual allocation formula. This is to enable the Board and the CEO to recognize individual performance distinctively. Performance is evaluated in the sole discretion of the Board and CEO, at the end of the fiscal year. The unused portion of the individual allocation pool is also distributed by the general allocation formula.

05.1.2 Compensation groups and calibration

The employees eligible for profit-sharing are assigned to one of five compensation groups. These five groups are the CEO, the other members of the Executive Committee, and (subdivided into three groups) the other eligible employees. Each compensation group is assigned a different multiplier. Within a given compensation group, the same multiplier is used for each member of the group. This multiplier together with the gross annual base salary represents the weighting assigned to the member of the compensation group in the allocation of the total profit-sharing pool. The values of the individual multipliers are set by the Board of Directors of Comet Holding AG. For each employee the percentage share of the total profit-sharing pool can thus be calculated, based on the individual's position (which determines the assignment to a compensation group) and gross annual base salary.

The Board of Comet Holding AG has the authority to adjust the calibration of the profit-sharing so as to reflect the performance of the Comet Group. When doing so, the Board ensures the adjustment is fair to all participants. The calibration is normally reviewed every three years and adjusted if appropriate.

05.1.3 Precondition for payment of profit-sharing compensation

A precondition for paying any profit-sharing compensation is that, after the accrual of this distribution, the Comet Group is still able to report positive consolidated net income.

- 05.2 Compensation system for the Board of Directors** Every year, the Board of Directors submits its proposal for the maximum aggregate amount of Board compensation to the Annual Shareholder Meeting for approval.
- 05.2.1 Responsibility and procedure The amounts of Board members' compensation are set to reflect the industry environment and are regularly reviewed against benchmarks. The latest such review was performed in fiscal year 2014. The compensation details are specified in a Board-approved compensation plan in the form of a regulation.
- 05.2.2 Fixed retainer For their work on the Board of Directors, the Board members receive a fixed retainer. A flat expense allowance is paid, in cash.
- 05.2.3 Stock compensation Two-thirds of the fixed retainer is paid in cash and one-third is paid in shares of stock. The stock awarded is subject to a holding period of three years during which it cannot be sold.

Overview of compensation

In CHF

	Cash portion of retainer (two-thirds)	Stock portion of retainer (one-third)	Total reported value of compensation	Flat expense allowance (additional)
Chairman of the Board	132,000	66,000	198,000	8,000
Member of the Board	66,000	33,000	99,000	4,000

Additionally, the actual employer contributions to social security plans are paid.

- 05.2.4 Joining and departure of Board members Board members' normal term of office begins on the date following the day of the Annual Shareholder Meeting that elects them and ends on the date of the next Annual Shareholder Meeting. When a new member joins the Board of Directors, the compensation is paid on a pro-rated basis from the day of election. If a member leaves the Board before the end of a term, the retainer is calculated on a pro-rated basis to the date of departure. In the case of pro-rated retainers as well, two-thirds is paid in cash and one-third is paid in stock.

- 05.3 Compensation system for the Executive Committee** The compensation of the Executive Committee is specified in a Board-approved regulation. Every year, the Board of Directors submits its proposals for the maximum aggregate amounts of Executive Committee compensation to the Annual Shareholder Meeting for approval, specifically:
- Prospectively, the fixed compensation of the Executive Committee for the next fiscal year after the year of the Annual Shareholder Meeting
 - Retrospectively, the performance-based compensation of the Executive Committee for the last fiscal year before the year of the Annual Shareholder Meeting

To any new member joining the Executive Committee during a period for which the Shareholder Meeting has already approved the compensation, Comet Holding AG or its subsidiaries are authorized to pay an additional amount if the already approved maximum aggregate amount is not sufficient to cover the compensation. The aggregate additional amount per compensation period must not exceed 40% of the approved maximum aggregate amount of compensation of the Executive Committee.

Type of compensation	Form of delivery	Purpose	Drivers
Fixed compensation	Monthly payment in cash	Pay for position	Nature and level of position, individual qualifications, market conditions
Short-term incentive plan (STIP)	Annual payment in cash	Profit-sharing based on corporate financial results	Corporate financial results in terms of profitable growth
Short-term incentive plan (STIP)	Annual payment in stock (with holding period)	Short-term alignment with the interests of shareholders	Corporate financial results in terms of profitable growth
Long term incentive plan (LTIP)	Annual payment in stock (without holding period)	Long-term alignment with the interests of shareholders	Corporate financial results relative to the peer group in terms of achievement of two performance targets for growth and profitability
Social security	Company pension, state old age and survivors (AHV) and unemployment insurance (ALV) plans, short-term disability and accident insurance	Risk protection	Local legislation and voluntary benefits in line with market
Flat expense allowance	Monthly payment in cash	Defraying of minor expenses	Local legislation, tax authorities
Benefits in kind	Costs paid directly by company or reimbursed in cash	Pay for position	Local market practice

05.3.1 Responsibility and procedure

The Nomination & Compensation Committee prepares a specific proposal for the amounts of the individual fixed compensation of the CEO and each of the other Executive Committee members, for approval by the full Board of Directors. The CEO recommends the amounts of fixed compensation for the other Executive Committee members to the NCC. The NCC also bases its proposals on general experience and on levels of compensation at peer companies. The full Board periodically reviews, sets and approves the compensation system, based on the proposal of the NCC. The latest such review was performed in fiscal year 2016 with support from the consulting firm Hay Group. Hay Group has no other engagements with the Comet Group.

The profit-sharing compensation is based on the regulations approved by the Board of Directors. The members of the Executive Committee do not attend the related Board meetings and are not entitled to vote on their compensation.

05.3.2 Fixed compensation

All members of the Executive Committee receive fixed compensation that is paid monthly, as well as a flat expense allowance. The fixed compensation is determined by the individual's amount of responsibility, role, performance, experience and skills, and by local market conditions. These elements of compensation are paid in cash.

05.3.3 Short-term profit-sharing compensation (STIP)

In addition to the fixed compensation, the Comet Group's employee profit-sharing plan provides a performance-related short-term incentive pay component (STIP), of which one-third is paid in stock. The stock awarded is subject to a holding period of three years during which it cannot be sold. The balance of the STIP amount is paid in cash.

Calculation of short-term profit-sharing compensation (STIP)

An individual Executive Committee member's share of the total profit-sharing pool (under the STIP) is calculated using the following model:

a) Calculation of individual's percentage share of total profit-sharing pool

$$\frac{\text{Gross base salary of employee} \times \text{multiplier} \times 100}{\text{Total weighted gross salaries of all staff}^1} = \% \text{ share of total profit-sharing pool}$$

1 Represents the aggregate of the multiplier-weighted gross salaries of all employees and the retainers of the Board of Directors.

b) Calculation of effective profit-sharing compensation

% share of total profit-sharing pool × amount of profit-sharing pool actually being distributed

The calculation of an individual's effective profit-sharing compensation is based on that portion of the total profit-sharing pool which has been allocated by the general allocation formula. In addition to that general portion, the Board of Directors may award an individual share of profit. Profit-sharing awards to the CEO and the other members of the Executive Committee are approved by the Board, which in turn proposes them to shareholders for ratification at the Annual Shareholder Meeting in a binding vote as part of the total compensation of the Executive Committee.

Joining and departure of Executive Committee members

Members joining the Executive Committee intra-year participate in profit-sharing on a pro-rated basis. In the event of departures from the Executive Committee, the amount due is calculated based on the approved consolidated financial statements and is paid out in stock and cash upon approval of the profit-sharing compensation by the Annual Shareholder Meeting.

Terms of employment

The members of the Executive Committee have employment agreements with a notice period of not more than nine months. There is no entitlement to termination benefits of any kind.

Disbursement of profit-sharing compensation

The members of the Executive Committee receive one-third of their short-term profit-sharing compensation in stock. The balance of the amount is paid in cash. A precondition for paying any profit-sharing compensation is that consolidated net income is still positive after the accrual of this compensation.

05.3.4 Long-term profit-sharing compensation (LTIP)

The aim of the long-term incentive plan (LTIP), which was introduced in fiscal year 2017, is to tie the CEO and the other members of the Executive Committee more closely to the company and to align part of their compensation more closely with the achievement of long-term corporate targets. Stock transferred under the LTIP does not have a holding period.

Structure of the LTIP

The amount of the LTIP compensation is dependent on the value of the stock earned as short-term profit-sharing compensation (STIP) in the previous three years. LTIP stock is granted each year inasmuch as the STIP performance targets for the previous three years were achieved. The LTIP amount is based on performance against the following two targets:

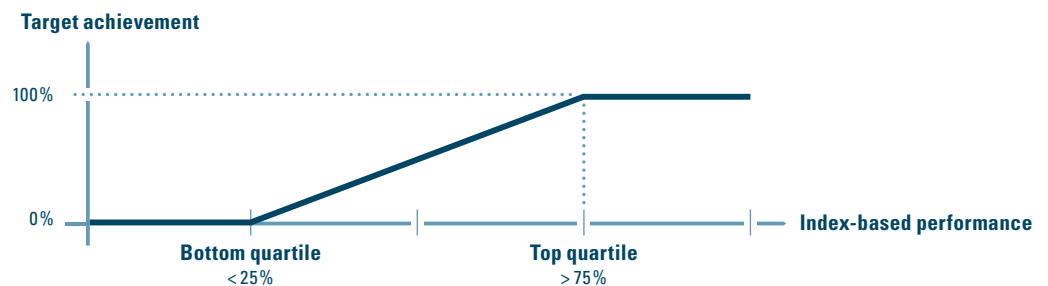
- a growth target (T1) and
- a profitability target (T2)

Target achievement is measured relative to a group of comparable listed Swiss manufacturing companies.

Calculation of the LTIP

For both targets, target achievement is assessed by measuring the index-based relative performance, thus comparing the Comet Group’s performance with that of the companies in the peer group. The degree of target achievement is 0% if the Comet Group’s result is in the bottom quartile of the index (i.e., among the 25% of companies with the lowest performance). Target achievement is 100% (the maximum) if the result attained is in the top quartile of the index (i.e., in the top 25% of all companies). When the result lies between these two outcomes, the percentage of target achievement is interpolated on a straight-line basis between 0% and 100%.

Target achievement is ascertained by an independent external party.



The value of the stock granted under the LTIP is based on the average annual achievement of the two performance targets (T1 and T2, in percent) multiplied by the average annual value of the stock (VS) actually transferred to employees in the preceding three years as STIP short-term profit-sharing compensation, multiplied by a calibration factor C:

$$LTIP = (T_1 + T_2)_s * V_s * C$$

Growth target T1: The growth target is a specified three-year compound annual growth rate (CAGR) of sales for the respective last three years. The performance against this measure is compared with that of the peer group (a group of manufacturing firms listed on the Swiss stock exchange). The achievement of the growth target is thus measured by the average CAGR of the Comet Group over the last three years in relation to the results of the peer group.

Profitability target T2: The profitability target is a specified average ratio of ROCE to WACC for the respective last three years (ratio of return on capital employed to weighted average cost of capital). The performance against this measure is compared with that of the peer group (a group of manufacturing firms listed on the Swiss stock exchange). The achievement of the profitability target is thus measured by the average ROCE/WACC ratio of the Comet Group over the last three years in relation to the results of the peer group.

Calibration factor C: The calibration factor is set by the Board of Directors. The calibration is normally reviewed every three years and, when necessary, adjusted so that the LTIP corresponds to the performance of the company and the purpose of the LTI plan. When doing so, the Board ensures the adjustment is fair to all participants.

Calculation of the value V_s of the average annual amount of STIP stock transferred: The amount of stock transferred under the LTIP is based on the value of the stock transferred under the short-term profit-sharing plan (STIP) over the last three years. That value of transferred STIP stock is measured as of the time of its transfer.

For determining the amount of LTIP stock to be transferred in year n , the underlying average annual value of STIP stock, V_s , is calculated as follows:

$$V_s = \frac{1}{3}(V_{n-2} + V_{n-1} + V_n)$$

Where V_{n-2} represents the value of the stock transferred in year $n-2$, V_{n-1} represents the value of the stock transferred in year $n-1$, and V_n represents the value of the stock transferred in year n .

Determination of target achievement

Target achievement is determined at the end of each year. As the data for the peer group companies only becomes available with a time lag, the current year-end data for the Comet Group is compared with that data for the peer group which is available at December 31.

Intra-year joining or departure

The amount of stock to be transferred under the LTIP is based on the amount of stock already actually transferred under the STIP short-term profit-sharing plan and is thus inherently pro-rated in the case of an intra-year hire or promotion. Employees who have given or received notice of termination of employment are not entitled to the LTIP compensation for the year of their departure.

Disbursement of the LTIP

The long-term profit-sharing compensation is disbursed on the basis of the approved consolidated financial statements and the approval of the profit-sharing compensation by the Annual Shareholder Meeting of Comet Holding AG in the subsequent year.

Changes of control

In the event of a public tender offer for the stock of Comet Holding AG, the LTIP compensation for the fiscal years that are not yet compensated under the LTIP at the time the public tender offer is validly made is paid entirely in cash instead of stock.

05.3.5 Upper limit for profit-sharing compensation

There are individual upper limits on the total profit-sharing compensation of the CEO and the other members of the Executive Committee of the Comet Group. The upper limit thus caps the individual's combined total of short-term (STIP) and long-term (LTIP) profit-sharing compensation. For the CEO this maximum (the upper limit for the combined total of STIP compensation and LTIP stock) is 200% of the fixed compensation. For each of the other members of the Executive Committee, this upper limit for the combined total of STIP compensation and LTIP stock is 150% of the fixed compensation.

06 Disclosure of compensation of the Board of Directors and Executive Committee

The following disclosures represent all compensation to the members of the Board of Directors and Executive Committee and their related parties¹ for fiscal years 2017 and 2018, disclosed in accordance with the Ordinance Against Excessive Compensation at Listed Companies (OAEC). Further details on the included individuals and their positions in the Group are provided in the corporate governance section of this annual report.

06.1 Current members of the Board of Directors (including related parties)

To ensure the independence of the Board of Directors in its supervision of the Executive Committee, the Board members receive only a fixed retainer. The compensation of the Board of Directors is set at the Annual Shareholder Meeting for a period of one year. As the Board's term of office does not match the fiscal year, the compensation stated in the annual report may differ from the pre-set amount.

The 2018 Annual Shareholder Meeting had prospectively approved an aggregate amount of CHF 800,000 (prior year: CHF 800,000) for the term of office ending at the 2019 Annual Shareholder Meeting. The actual compensation in fiscal year 2018 was CHF 750,875. The amount of the Board's compensation was thus almost the same as in the prior year.

Fiscal year 2018								
Name		Hans Hess	Lucas A. Grolimund	Gian-Luca Bona	Mariel Hoch	Rolf Huber	Franz Richter	Board of Directors
Position		Chairman	Vice Chairman	Member	Member	Member	Member	Total
In CHF	Footnote							
Total cash compensation	(1)	132,000	66,000	66,000	66,000	66,000	66,000	462,000
Stock compensation	(2)	66,041	33,020	33,020	33,020	33,020	33,020	231,142
Total before social security contributions		198,041	99,020	99,020	99,020	99,020	99,020	693,142
Total expenses for long-term benefits	(3)	16,328	8,281	8,281	8,281	8,281	8,281	57,733
Total compensation		214,369	107,301	107,301	107,301	107,301	107,301	750,875

¹ Persons outside the Comet Group who are related to members of the Board of Directors or Executive Committee within the meaning of section 678 of the Swiss Code of Obligations by virtue of close personal or economic ties in law or in fact.

Fiscal year 2017

Name	Hans Hess	Lucas A. Grolimund	Gian-Luca Bona	Mariel Hoch	Rolf Huber	Franz Richter	Board of Directors
Position	Chairman	Vice Chairman	Member	Member	Member	Member	Total
In CHF							
Total cash compensation	132,000	66,000	66,000	66,000	66,000	66,000	462,000
Stock compensation	66,507	33,252	33,252	33,252	33,252	33,252	232,767
Total before social security contributions	198,507	99,252	99,252	99,252	99,252	99,252	694,767
Total expenses for long-term benefits	16,323	8,280	8,280	8,280	8,280	8,280	57,723
Total compensation	214,830	107,532	107,532	107,532	107,532	107,532	752,490

- (1) The compensation consists of a fixed retainer; two-thirds of it is paid in cash and disclosed in this item.
- (2) This item represents the one-third of the fixed retainer which must be drawn in stock. The effective transfer of the stock occurs in the subsequent year. The stock is subject to a holding period of three years from the date of the award during which it cannot be sold.
- (3) This item represents employer contributions to the old age and survivors and unemployment insurance plans as well as contributions to the family allowance fund. For Board members, the Comet Group does not pay pension fund contributions, short-term disability insurance premiums or accident insurance premiums.

Additional compensation for legal services

In the fiscal year, the law firm Bär & Karrer AG, Zurich, billed fees in the amount of CHF 8 thousand for consulting services. Mariel Hoch, a member of Comet's Board of Directors, is a partner at this law firm. In the prior year, no services were obtained from or invoiced by members of the Board of Directors or their related parties.

06.2 Current members of the Executive Committee (including related parties)

A total of ten persons served as members of the Executive Committee during the fiscal year. On average over the fiscal year, this represented 9.2 full-time equivalents (prior year: 7.7). The compensation of the members of the Executive Committee for which an expense was accrued is presented in the table below.

The 2017 Annual Shareholder Meeting had prospectively approved an aggregate amount of CHF 3,400,000 for the fixed compensation for fiscal year 2018. The actual aggregate fixed compensation (including proportionate social security contributions and benefits in kind) reported for fiscal year 2018 is CHF 3,709,664. The actual aggregate fixed compensation reported for fiscal 2018 exceeds the aggregate amount approved by the Shareholder Meeting by CHF 309,664 or 9.1%, as two additional members joined the Executive Committee only after the 2018 Annual Shareholder Meeting. These were Matthias Barz (Interim President of the IXS division) and Thomas Wenzel (President of the IXS division from December 1, 2018). Under section 21 of the Bylaws, the Company is authorized to exceed the approved aggregate amount by up to 40%.

In addition, for the prior fiscal year 2017, the 2018 Annual Shareholder Meeting had retrospectively approved an aggregate amount of CHF 1,779,825 for profit-sharing compensation of the Executive Committee (including proportionate social security contributions). This was paid out in May 2018. Thirty-seven percent of this profit-sharing compensation was paid in stock (prior year: 61%).

The reduction in aggregate compensation in fiscal year 2018 compared with the prior year, which occurred despite the year-over-year growth in the number of Executive Committee members, resulted from the much lower performance-based remuneration.

In CHF		Executive Committee total		Highest compensation	
				R. Lenggenhager CEO (1)	R. Fehlmann CEO
Fiscal year	Footnote	2018	2017	2018	2017
Fixed compensation	(2)	2,816,243	2,466,258	480,000	480,545
Short-term incentive compensation (STIP), cash portion	(3)	217,291	1,029,900	59,072	266,979
Total cash compensation		3,033,534	3,496,158	539,072	747,524
Short-term incentive compensation (STIP), stock portion	(4)	108,012	514,950	29,536	133,489
Long-term incentive compensation (LTIP)	(5)	58,704	94,308	9,788	0
Total stock compensation		166,716	609,258	39,324	133,489
Total benefits in kind	(6)	195,615	234,519	6,300	5,970
Total expenses for long-term benefits	(7)	731,503	815,941	164,190	177,761
Total compensation		4,127,368	5,155,876	748,886	1,064,744

- (1) Rene Lenggenhager, CEO since May 1, 2017, was the member of management with the highest individual compensation. In the table above, his compensation is both disclosed separately and included in the total compensation of the Executive Committee.
- (2) For their work the members of the Executive Committee receive a fixed compensation component, which is paid in cash. This item comprises the fixed compensation of all Executive Committee members who served during all or part of the fiscal year, as well as the compensation of Matthias Barz, who, as an interim manager, led the IXS division for five months. This item also includes any other one-time cash compensation, such as length-of-service awards.
- (3) This item includes the portion of the short-term performance-related (STIP) compensation paid in cash, which is calculated based on the criteria of the compensation system.
- (4) This item represents the portion of the short-term performance-related (STIP) compensation paid in stock. The effective transfer of the stock occurs in the subsequent year. The stock is subject to a holding period of three years from the date of the award during which it cannot be sold.
- (5) This item represents the long-term performance-related (LTIP) compensation, all of which is paid in stock. The effective transfer of the stock occurs in the subsequent year.
- (6) A GA travel card for the use of Swiss public ground transportation is paid for one member of the Executive Committee. As well, one member of the Executive Committee is reimbursed for expenses in connection with an international equalization of tax and of social security benefits, as well as receiving an amount towards additional travel and living expenses.
- (7) This item represents employer contributions to the old age and survivors (AHV) and unemployment insurance plans (ALV), to the family allowance fund (FAK), to the employee pension plans and to the short-term disability insurance and accident insurance plans.

The amounts set out in the table above are not identical to the taxable income of the Executive Committee members, as the total compensation for the purposes of section 663 of the Code of Obligations includes employer social security contributions.

The aggregate profit-sharing compensation (including proportionate social security contributions) reported for fiscal year 2018 is CHF 417,705. Before the 2018 profit-sharing compensation is paid to the members of the Executive Committee, the proposal for it by the Board of Directors must be approved by shareholders at the 2019 Annual Shareholder Meeting (retrospective approval).

06.3 Former members of the Board of Directors and Executive Committee (including related parties)	In the fiscal year, no former members of the Board of Directors or Executive Committee or their related parties worked for or were compensated by the Comet Group.
06.4 Supplementary information on compensation	<p>In the fiscal year, no signing bonuses were paid to present or former members of the Board of Directors or of the Executive Committee and no termination benefits were granted or paid.</p> <p>No loans or other credit were granted in the year under review. No loans or other credit were outstanding at the balance sheet date. The Comet Group has not provided any guarantees or other security. Board members did not receive benefits in kind. No material changes related to compensation have occurred after the balance sheet date of December 31, 2018.</p>
06.5 Interim management contracts	There were no interim management contracts in the fiscal year.
<hr/>	
07 Disclosure of shareholdings of the Board of Directors and Executive Committee	<p>At the end of the fiscal year, the members of the Board of Directors and Executive Committee held a combined total of 1.1% of the outstanding shares of Comet Holding AG (prior year: 1.2%).</p> <p>A detailed analysis of the shareholdings of the members of the Board of Directors and Executive Committee is presented in the notes to the separate financial statements of Comet Holding AG on page 99.</p>
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08 Proposals to the 2019 Annual Shareholder Meeting for compensation of the Board and Executive Committee	<p>At the 2019 Annual Shareholder Meeting the Board of Directors will propose the following three resolutions for the compensation of the Board and the Executive Committee:</p> <ul style="list-style-type: none"> ■ Prospective approval of the total compensation of the Board of Directors for the term from the 2019 to the 2020 Annual Shareholder Meeting ■ Prospective approval of the fixed compensation of the Executive Committee for fiscal year 2020 (being the next fiscal year after the year of the Annual Shareholder Meeting) ■ Retrospective approval of the performance-based compensation of the Executive Committee for fiscal year 2018 (being the last fiscal year before the year of the Annual Shareholder Meeting) <p>The detailed proposals and the supporting reasoning will be delivered to shareholders with the notice of the 2019 Annual Shareholder Meeting.</p>



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To the General Meeting of
 Comet Holding Ltd., Flamatt

Berne, 7 March 2019

Report of the statutory auditor on the remuneration report

We have audited the remuneration report of Comet Holding Ltd. for the year ended 31 December 2018. The audit was limited to the information according to articles 14–16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in Section 06 – Disclosure of compensation of the Board and Executive Committee on pages 153 to 156 of the remuneration report.



Board of Directors' responsibility

The Board of Directors is responsible for the preparation and overall fair presentation of the remuneration report in accordance with Swiss law and the Ordinance. The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.



Auditor's responsibility

Our responsibility is to express an opinion on the remuneration report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report complies with Swiss law and articles 14–16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the remuneration report with regard to compensation, loans and credits in accordance with articles 14–16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the remuneration report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of remuneration, as well as assessing the overall presentation of the remuneration report.

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



Opinion

In our opinion, the remuneration report for the year ended 31 December 2018 of Comet Holding Ltd. complies with Swiss law and articles 14–16 of the Ordinance.

Ernst & Young Ltd

Roland Ruprecht
 Licensed audit expert
 (Auditor in charge)

Philippe Wenger
 Licensed audit expert

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Publication information

Published by
Comet Holding AG,
Flamatt, Switzerland

Copywriting

Comet Group and Farner, Zurich

Design

Farner, Zurich

Photography

Dan Cermak

Production and printing

Neidhart + Schön AG, Zurich

Print run

675 copies in German,
550 in English

English translation

Martin Focken, North Bay,
Ontario, Canada

This report is a translation of the German-language original and is provided solely for readers' convenience. In the event of discrepancy or dispute, the German version shall govern.

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