### 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 yearover-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





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 nondestructive 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.

