## 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

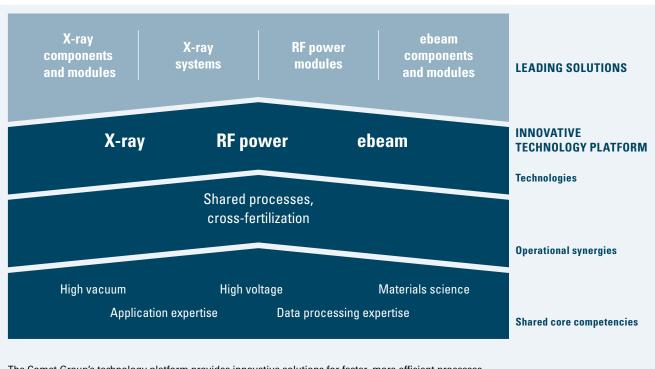
All of the Group's products, besides their original function of non-destructive examination, plasma control or surface treatment, can also be considered as sensors. Either directly or when equipped with an additional sensor, they can provide critical data not only on their own maintenance status but 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.



The Comet Group's technology platform provides innovative solutions for faster, more efficient processes and safer products in a wide range of markets whose growth drivers are the progressive digitalization and its enablers: artificial intelligence, the Internet of Things and data analytics.

#### **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.





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.

# 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.





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.