RENE LENNGENHAGER
CEO, COMET GROUP

Play on strengths. Improve. Perform.
Status Update

Strategy 2020 and priorities
Positive perspective

- Strong balance sheet
- Clear strategy & business model
- Flexible capacities
- Attractive growth drivers
- Core competencies

**Solid base**

**Sustainable Improvement**

- IXM: new iVario/tube bundle, launches for security market
- IXS: innovations for Industry 4.0
- PCT: new RF generator
- EBT: Egg Case

**Strong pipeline**

- + 20% investments in R&D vs. 2017
- Production building expansion FLA completed as enabler of further lean initiatives
- Profit improvement addressed in IXS and EBT
- Improvement in operational efficiency
- Non-recurrence of 17 CHFm at EBITDA level in 2019

**Profit improvement addressed in IXS and EBT**

**Production building expansion FLA completed as enabler of further lean initiatives**

**Non-recurrence of 17 CHFm at EBITDA level in 2019**

**Solid base**

- Core competencies
- Flexible capacities
- Strong balance sheet
- Attractive growth drivers
- Clear strategy & business model
Status Update

Thanks to its core competencies, the Comet Group has grown into an important partner to key customers in various industries.

Sales evolution since the company was founded

[Sales chart showing growth from 1948 to 2018, with milestones such as X-ray, Vacuum Capacitors, and IXS acquisitions FineFocus, Yxlon, and an annotation indicating Strategy 2020 with sales targets of 100 CHFm, 200 CHFm, 300 CHFm, and 400 CHFm.]
Status Update

Common core competencies are instrumental for the leading solutions in all three technologies.
Digitalization of products, processes and services will offer even more synergies tomorrow

Comet products can create additional value as sensors / data generators

Similar approach for data science across Comet Group (methods, capabilities, data technologies)

Our customers’ end user goal

Optimized production processes at customer site

Comet Group can create additional value as sensors / data generators

RF power modules

X-ray modules/systems

ebeam modules

Data

Insights

Algorithms and patterns

Adjust

Our customers’ end user goal

Optimized production processes at customer site
Similar data processing methods / algorithms will create even more value and learning experience between the businesses.
Our four divisions

- **EBT**
  - Sterilization
  - Material modification

- **PCT**
  - Semiconductors
  - Microchips & Sensors
  - Displays

- **IXM**
  - Security
  - Aerospace
  - Electronics
  - Medical

- **IXS**
  - Electronics
  - Automotive / Foundries
  - Aerospace

% Group sales H1 2018:
- EBT: 4%
- PCT: 53%
- IXM: 15%
- IXS: 28%
The Comet Group growth engine: Strong and diversified on-going business
EBT:

Please use picture of all ebeam employees – idea is to show that the business is not reduced to a handful of people but that a sizeable organization is behind.

Strategy update

Comet Group  |  Investor Day 2018  |  November 13, 2018

EBT
EBT: Re-focusing of business almost completed – Transfer of system business part to new owner

Comet remains free to operate its module activities without any restrictions

Comet keeping open access to large lamp, knowledge of shielding, prototyping skills

New owner will guarantee completion of all orders, warranties and services associated with them

Sale of assets

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PCT EBEAM AND INTEGRATION, LLC, an affiliate of Tri-City Electric Co.

- Top 40 electrical contracting and engineering company in US
- Founded in 1895, family owned
- HQ: Davenport, Iowa, USA (5km from EBT site)
- Employees: > 1,000
- Primary interest: integration part of business; ebeam technology seen as opportunity for further diversification
ebeam clear advantages

- EBT ebeam engines produced in Flamatt
- High performance, unchanged over time
- No chemicals, food safe
- Energy-efficient, no heat
## Status Update

### EBT: New model with focus on promising ebeam engines

<table>
<thead>
<tr>
<th>FROM</th>
<th>TO</th>
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<tbody>
<tr>
<td>Addressing OEMs and end customers</td>
<td>Addressing OEMs only</td>
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<tr>
<td>Development of completely new markets</td>
<td>Scaling of existing market access, know-how and products into adjacent applications</td>
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<td>Sizeable advance investments for developing new applications</td>
<td>Risk-adjusted, sustainable financing</td>
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<td>Systems and engines</td>
<td>Focus on strong, promising engine portfolio</td>
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<td>Strong collaboration with partners</td>
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### Reducing losses

**New Focus**

**EBT**

**ebeam Engines**

*produced in Flamatt*
Status Update

EBT current business and new risk-adjusted model

Starting point

Low double digit sales volume based on contracts with partners, EBLabs and R&D expected over the next 5 years, starting from about 15 CHFm in 2019 and increasing gradually until large volumes kick in.
Realigned EBT business: Start-up business based on strong strategic customers and attractive further long-term potential

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**Future-oriented technology based on solid know-how**

- ✓ Only supplier of compact sealed lamp to be integrated
- ✓ In-depth expertise in complex industrial applications
- ✓ Energy-efficient and resource-saving, allowing more sustainable processes for its partners

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**Applications**

- % Group sales *H1 2018*

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**Strengths**

- Implement new cost-optimized operating model, expand to next applications identifying strong global partners (e.g. Egg).

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**Potential**

- EBEAM TECHNOLOGIES

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Source: Comet
EBT priorities to 2020

1. Tetra Pak, Bühler and other partners: position EBT as solid and reliable development partner

2. Continue Egg case

3. Develop partnerships with OEMs

4. Scale know-how, market access and products

Operational excellence and reliability, increase efficiency and reduce relative cost level

Start of risk-adjusted model
IXS profit improvement program on track, increasing agility and strengthening organization for growth from 2020 onwards

1. **Reprioritization**
   - Reprioritization and acceleration of projects to renew product portfolio

2. **Workforce reduction**
   - 27 positions in Germany
   - Contractors

3. **Increase in efficiency**
   - Optimized organization and adjustment of processes
   - Further saving in operations

Status of implementation to achieve EBITDA margin of 6% in 2019

On-going mid-term program
Status Update

Increase efficiency: Two examples of important groundwork done to strengthen operations and speed up time to market

1. End-of-line checks
   - Warranty cost: about -15%
     - Starting end of 2018

2. Lean pilot introducing tact
   - Throughput time: about -30%
     - Starting end of H1 2019
   - Working hours: about -20%
     - Starting end of H1 2019

*for Cheetah/Cougar EVO
Portfolio renewal on track, first positive effects, focused pipeline

- **+80%** OI compared to 2017
- **+10%** OI vs. old systems
- **+2** Global Technology Awards
- **4** new releases for Industry 4.0 scheduled for 2019
- First orders for Cheetah / Cougar EVO
- **+2** Global Technology Awards
- Substantial additional new orders from 2020 onwards

FF 20/35 CT
Cheetah / Cougar EVO
WI26G

Comet Group | Investor Day 2018 | November 13, 2018
Status Update

On-going business IXS: Exciting business with attractive potential

One of the leading suppliers of industrial x-ray systems globally

Position

- In-depth expertise in complex industrial applications
- Best end data
- Large global service and distribution network

Strengths

- Leverage x-ray as sensor with highest information density in combination with machine & deep learning to expand to new applications

Potential

Source: Yxlon
IXS priorities 2020

1. Sustainable development of organization under new leadership

2. Consistent and timely introduction of planned product releases and upgrades

3. Further develop and upgrade metrology as a feature

4. Enhance data analysis skills to support process improvement for customers

Build on lean and agile processes implemented in 2018 to enable faster time to market and higher efficiency while also increasing ROI
Status Update

On-going business IXM: Well-positioned for continued growth, advancing business under new management since January 2018

Position
Clear market leader in non-destructive testing and security with tubes

Strengths
- Superior industrial metal-ceramic X-ray tubes
- In-depth, unique process know-how and ability to deliver tailor-made solutions to OEM customers
- Deep understanding of OEM needs, thanks to IXS business

Potential
- Expand into adjacent markets based on product portfolio expansion

% Group sales H1 2018
Addressable market (modules)
Current market share

X-RAY MODULES

15%

CHF 280m

Other applications
Security inspection
Non-destructive testing (NDT)

Source: Comet
IXM priorities to 2020

1. Exploit existing portfolio to grow with the bundle (tube & generator)

2. Launch of cost-optimized security products

3. Expand product range to explore new and adjacent markets

Operational excellence; expand lean activities, lead buyer concept, global logistics, keep flexible cost base
PCT: Current slowdown – But continued high demand for joint development projects; strong drivers based on growing data storage and processing demand

Position
One of the leading suppliers of RF power technology globally

Strengths
✓ The only manufacturer worldwide to develop and produce all core components of the RF Delivery System
✓ Over 50 years of expertise in the field of VacCaps, heart of the RF matchbox
✓ Flexible cost structure

Potential
Attractive potential by expanding RF generator portfolio, and on track with generator ➔ broaden application and customer base

Addressable market
- CHF 1000m
- 53%

Current market share
- Flat panel
- Semiconductor

19m/9 % of sales from other markets (niche markets like broadcast, amplifiers etc.)

Source: Comet
PCT priorities to 2020

1. Remain preferred innovation partner for key customers
   - Introduce further lean, automated processes, esp. in new building in CH
   - Keep flexible cost base and readiness for ramp-up

2. Optimize R&D processes for accelerated time to market (Smart lab)

3. Prepare new production facility for next-generation generators

4. Market intro of new RF generator (for RF power system)

2020
Operational Excellence: Important milestones reached; completed expansion in Flamatt as basis for further lean initiatives and future growth.

- Building expansion on cost and on time
- Leaner processes and production cells
- Automation concept
- First significant savings from lead buyer initiative
- Logistics further standardized with savings of 50% per kilo
Status Update

Business Development with good progress in all major projects

IXS - Electronics 4.0
IXS - CT Intelligence
EBT - ebeam+
EBT - Egg treatment
EBT - Printing
Status Update

Growth Initiatives – important steps achieved with each initiative

PCT - Expanding RF power portfolio

EBT - Inactivation of dry food with Bühler

IXS - Metrology: Strengthening of portfolio

IXM - Security: New offering
Our four levers for growth beyond 2020

**Digitalization**
- Smart factory
- Smart products & services
- Smart processes

**Go-to-Market**
- Customer centricity
- Market access
- Cross-selling (Lab One)

**Diversification**
- Regions
- Applications
- Products & Services

**Speed & Agility**
- Leadership
- Culture
- Processes
- Competencies
### Main initiatives implemented to support each growth lever

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<tr>
<th>Initiative</th>
<th>Status 1</th>
<th>Status 2</th>
<th>Status 3</th>
<th>Status 4</th>
<th>Expansion of product portfolio</th>
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- **Smart connectivity**: Automated testing of SW integration IXM
- **Automated shuttle logistics**: BI Controlling (BEX)
- **Rollout of Jira, Confluence**: Automated testing of SW integration IXM
- **Sales CRM**: Service CRM (Group)
- **Expansion of Shanghai site**: Lab One
- **PCT Smart Lab, Flamatt**: Marketing Automation

**Break Out Sessions**
Summary & Outlook
Summary

Strong base; right priorities to 2020

- Strong base of shared core competencies
- Strategy 2020 on track; actions taken to address challenges
- Clear priorities to deliver to deliver on 2020 strategy for each division
Comet group well positioned to address attractive market potential
Outlook

2018
Net sales between 430 to 440 and an EBITDA margin between 7 and 9%

2019 and 2020
For 2019 and 2020 the Comet Group is not publishing revenue and EBITDA targets, in view of

- the geopolitical uncertainty
- the lack of visibility especially in the semiconductor market
- the structural changes in the ebeam business

Comet Group enters fiscal year 2019 on a more robust base
Strategy Process

How we are going forward

René Lenggenhager, CEO, Comet Group
We are working on the longer-term strategy both at the Group level and at the divisions level, both linking closely.
Create value-added to 2020 and beyond

Strategy process

Leveraging
- Digitalization
- Diversification
- Go-to-Market
- Speed & Agility

Attractive potentials based on product portfolio expansion

Strong growth drivers

Strong core competencies

Sales evolution
# Financial calendar for the Comet Group

<table>
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<tr>
<td>March 14, 2019</td>
<td>Publication of 2018 annual report</td>
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<tr>
<td>April 25, 2019</td>
<td>Annual shareholder meeting in Berne</td>
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More details on our business performance and financial results:

http://www.comet-group.com

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Disclaimer

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Thank you for your interest