



## Company Presentation Nynomic AG

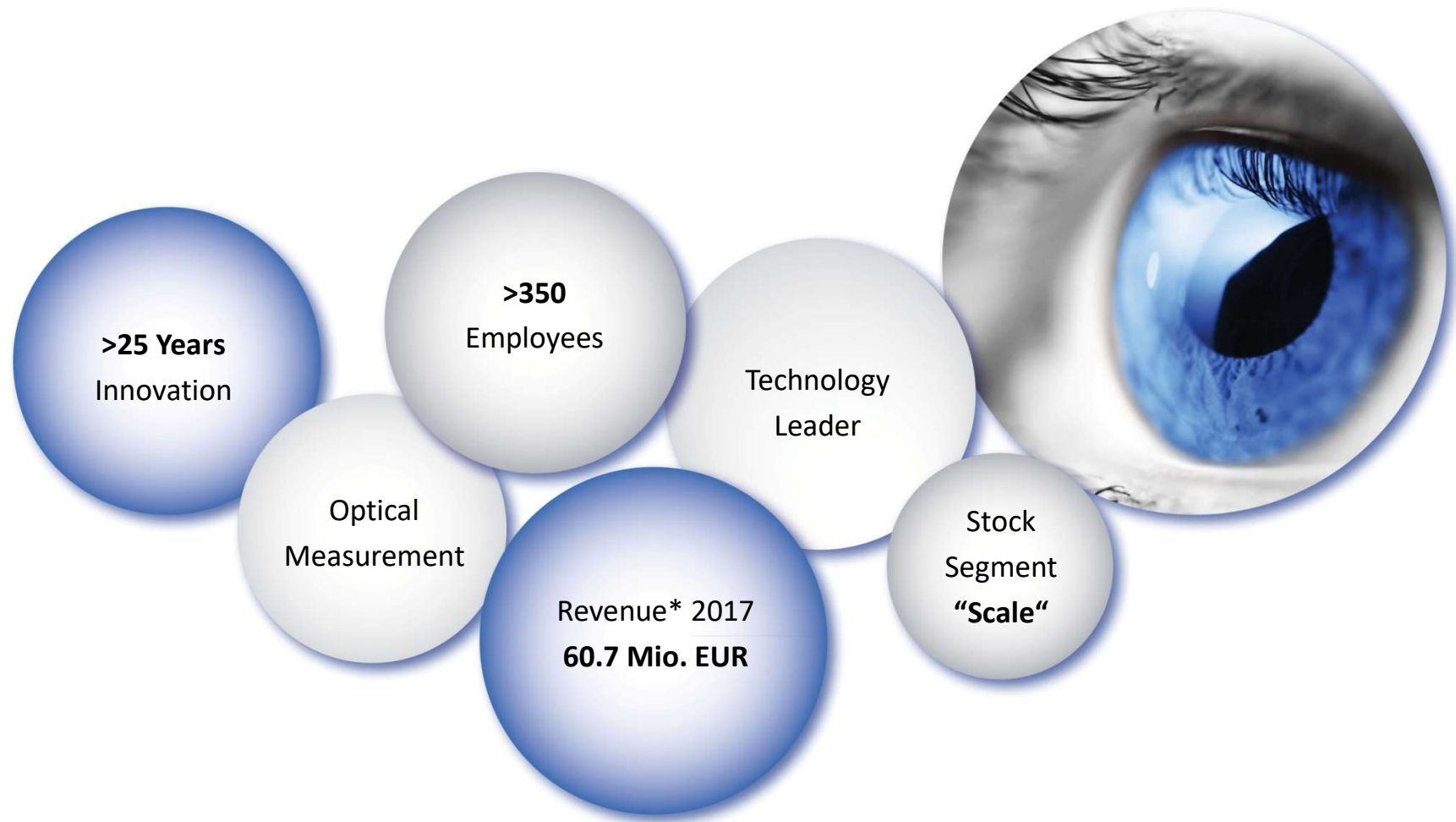
26. MKK – Münchner Kapitalmarkt Konferenz  
December 11, 2018

## Nynomic Group

- **Company Profile**
- **Group Structure**
- **Finance KPI's**
- **Products, Technologies & Markets**
- **Conclusion and Outlook**
- **Market and Growth**
- **Share**



## Nynomic Group



\* Revenue without LayTec AG and Spectral Engines Oy

## Key Facts – Nynomic AG

- **Headquarters in Wedel; Northern Germany near Hamburg**
- **Strategic Financial Holding**
- **Management Board**  
Maik Müller  
Fabian Peters
- **Stock listed since 2007 / 5,070,000 shares**
- **WKN A0MSN1**
- **Approx. 350 employees; thereof about 30% engineers**
- **60.7 Mio. EUR revenue in 2017\***
- **9.1 Mio. EUR EBIT in 2017\***
- **[www.nynomic.com](http://www.nynomic.com)**

\* without LayTec AG and Spectral Engines Oy

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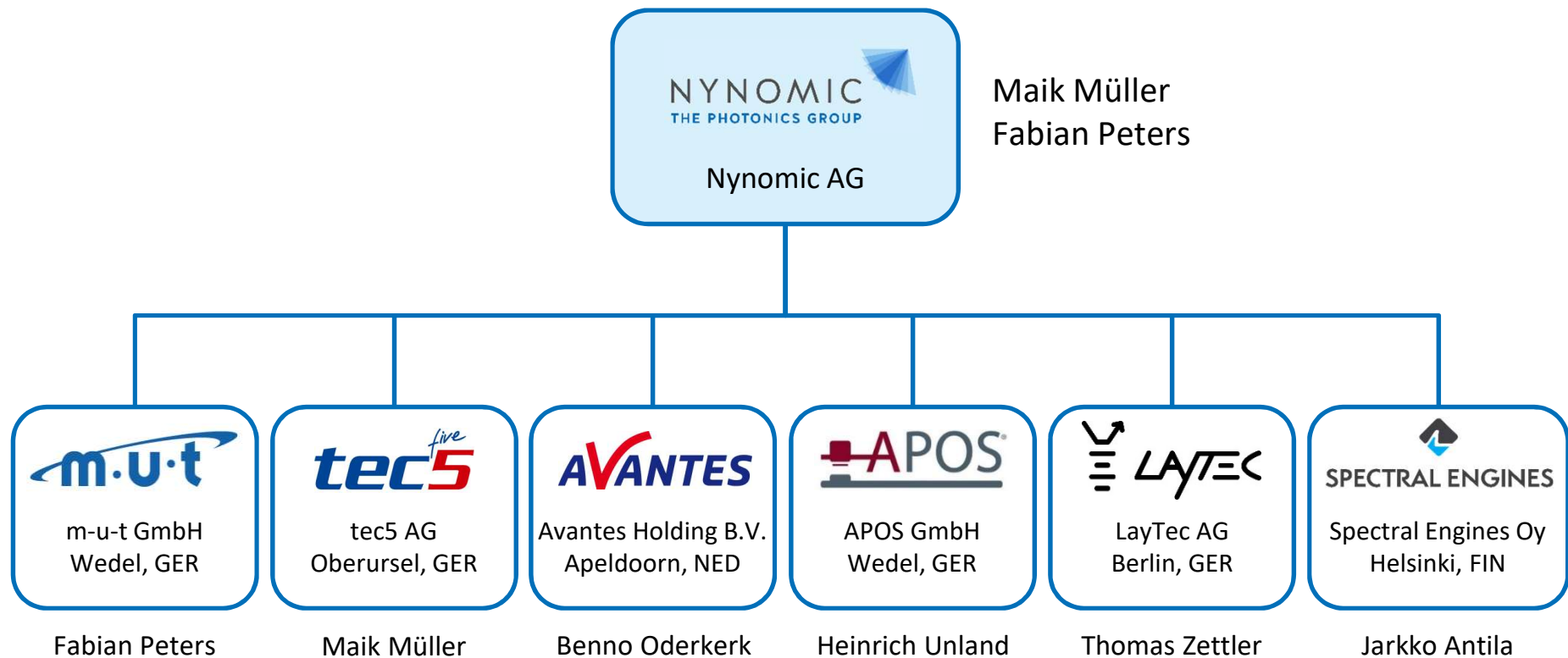


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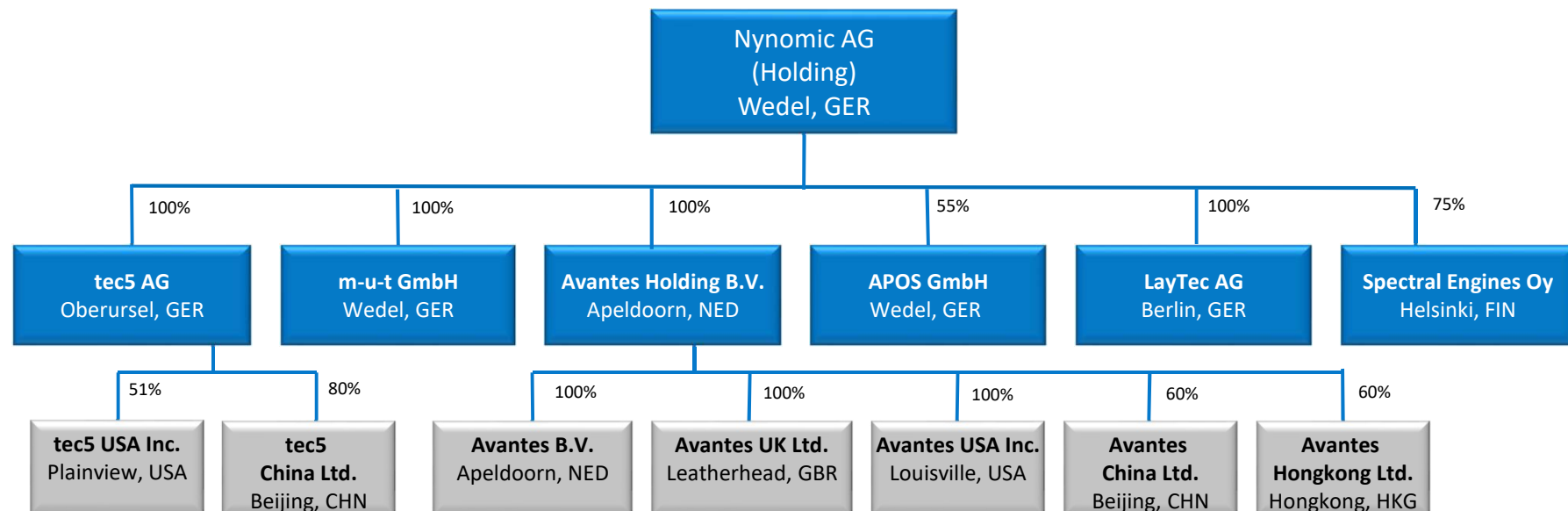
## Powerful Brands within the Group



## Structure – Nynomic AG

The set-up of the corporate structure as well as the reduction in minority interests are constantly brought into focus and pushed forward

- Renaming from m-u-t AG to Nynomic AG in August 2018
- Acquisition of Spectral Engines Oy in May 2018
- The share in Avantes Holding B.V. increased by 25.04% to 100.0% in Q1 2018
- Acquisition of LayTec AG in November 2017



## Spectral Engines – Key Facts

**Spectral Engines significantly extends the product portfolio of the Nynomic group with disruptive technologies which have recently taken the threshold to be ready to market. Nynomic can now address markets and applications which haven't been reachable so far.**



- Development and production of miniaturized spectral sensors for mobile and stationary applications
- Cloud-based data processing with machine learning (AI)
- [www.spectralengines.com](http://www.spectralengines.com)
- Headquarters in Helsinki; Finland
- CEO: Jarkko Antila
- Approx. 20 employees; thereof about 70% engineers
- Expected revenue in 2018: 1.5 Mio. EUR



## Spectral Engines - Highlights

- Spectral Engines' core technology are advanced MEMS-based spectral sensors, which have been developed as a disruptive approach to miniaturized and cost-effective material sensing applications.
- In 2017 the spectral sensors reached serial status; added with a powerful, high-innovative platform for cloud-based data processing and machine learning algorithms.
- Spectral Engines is now in the position to develop mobile solutions with appropriate Apps for a wide range of mobile applications; this opens the way to offer this prospective on a rental basis or “pay per use” even to end customers.



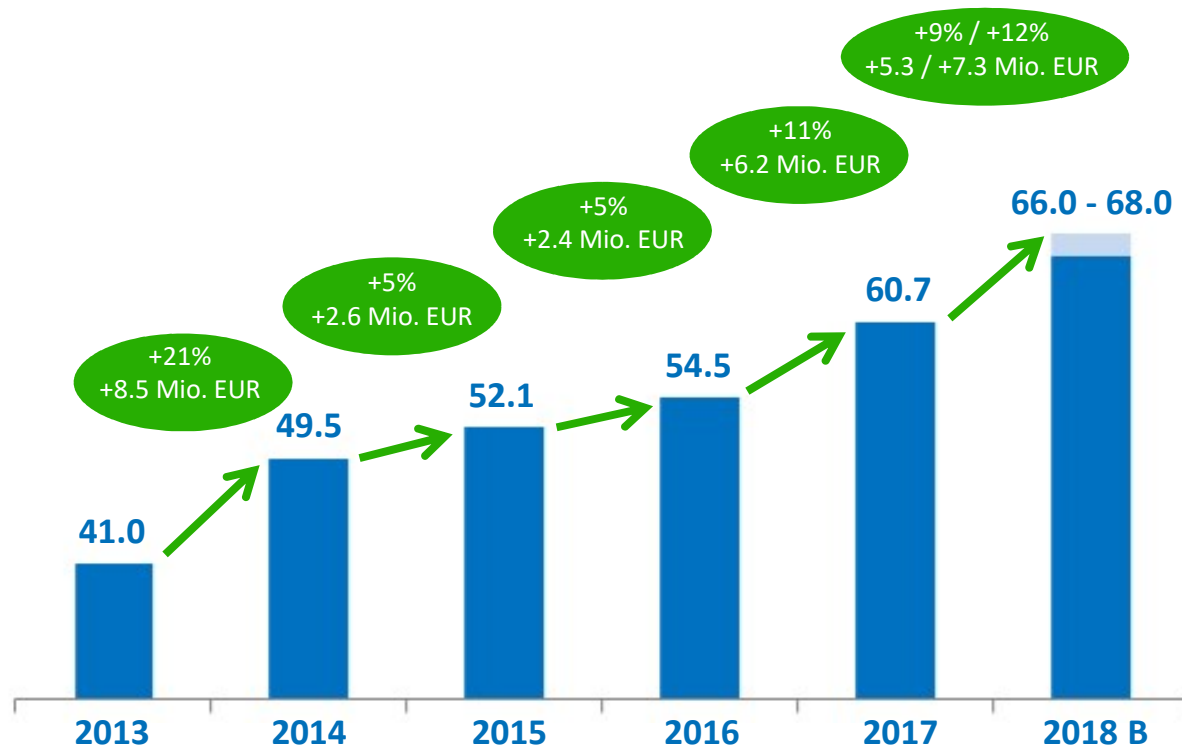
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## Finance KPI's – Revenue

**Increase in revenue to another new record of 60.7 Mio. EUR in 2017**

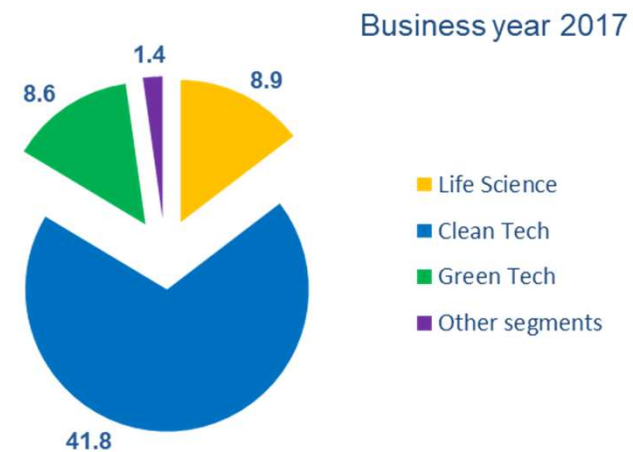
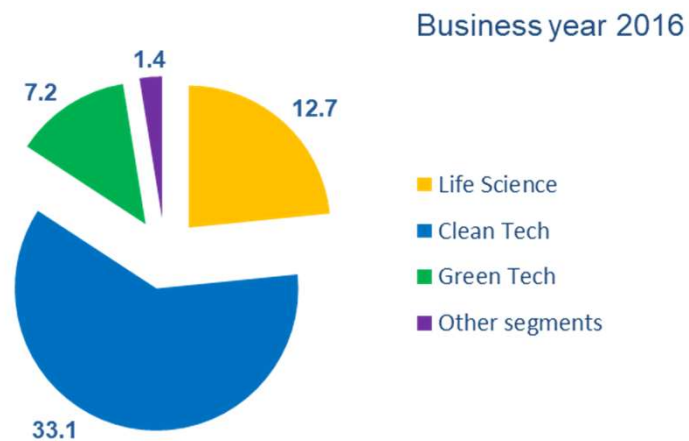


Note: Values in million EUR

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## Finance KPI's – Revenue by segment

**In 2017 increase of revenue in segment Clean Tech and Green Tech**

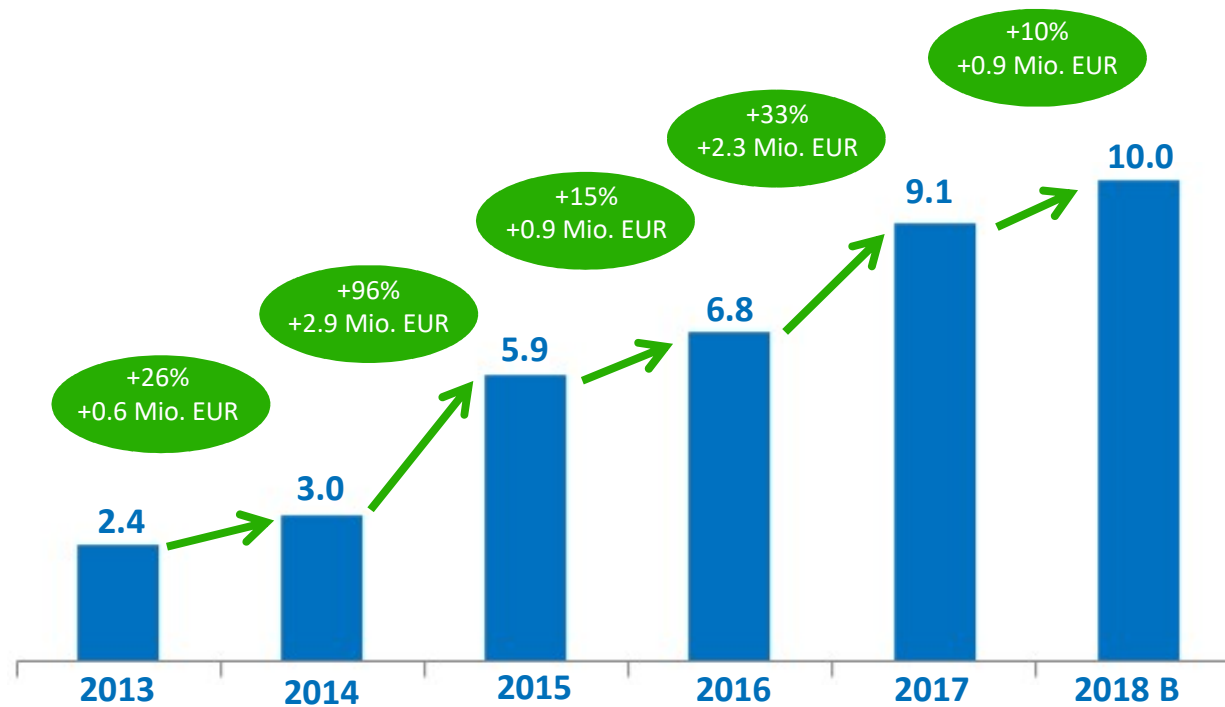


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## Finance KPI's – EBIT

Not only sales, but also operating income has increased to a new record in 2017



Note: Values in million EUR

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## Finance KPI's – Overview

**Strong increase in all Finance KPI's confirms again the right strategic direction**

### P&L

Financial Figures	2014	2015	2016	2017	FC 2018	+/-
Revenue	49.5	52.1	54.5	60.7	66.0-68.0	+9%/+12%
EBIT	3.0	5.9	6.8	9.1	10.0	+10%

### Balance Sheet

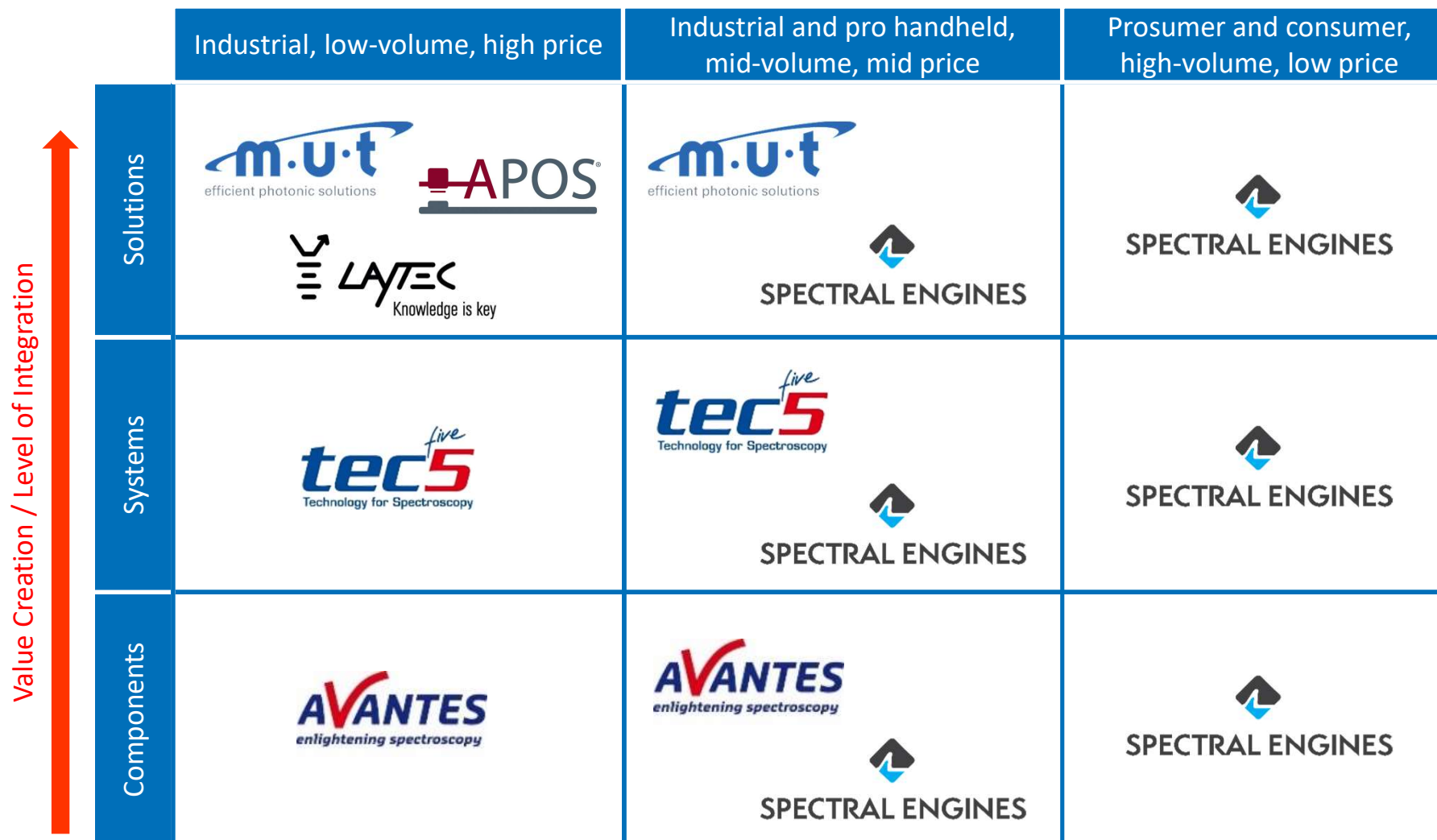
Financial Figures	2014	2015	2016	2017	HY 2018	+/-
Equity	6.8	10.9	13.6	16.7	20.6	+23%
Equity ratio	28%	42%	48%	34%	33%	-3%
Total assets	24.1	26.2	28.7	49.1	61.9	+26%
Cash	6.4	8.3	10.6	19.6	14.8	-24%
Liabilities to banks	8.5	6.2	5.3	3.7	22.1	+497%

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## The Reach of the Nynomic Group Portfolio





## Markets – Semiconductor Clean Tech

### Production Control of Integrated Circuits, LEDs and Displays



- Highest requirements to measurement rate (high speed) and signal quality
- High availability - 24/7
- Copy exact philosophy - any measurement system has to be exactly equal, down to the last screw

## Markets – Agriculture / Farming

### Green Tech

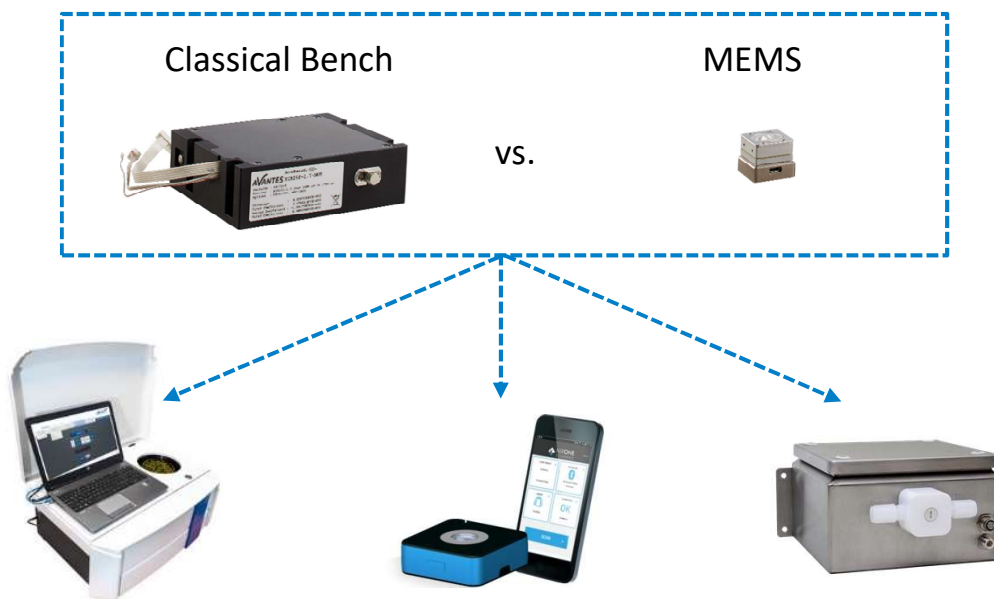
#### Measurement Systems for Precision Farming



- Analysis of vegetation for selective nitrogen fertilization
- Online calculation of the optimum amount of fertilizer
- Analysis of slurry content during output
- Sorting of vegetables and fruits

## Markets – Smart Sensors

**Industrial, pro handheld to consumer / mid volume to high volume / mid price to low price**



- Smart sensors for a wide field of applications
- Based on classical bench design or miniaturized MEMS spectral sensors
- Sophisticated embedded software platform with wide range of data calculation (cloud, AI) and communication capabilities

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SMART INDUSTRY



SMART FARMING



SMART HOMES



PORTABLE DEVICES



## Markets – Coating and Photovoltaic Clean Tech

### Production Control of Coating Techniques



- Inline measurement in coating processes and photovoltaic techniques (CIGS)
- Up to 10 channels simultaneous
- Online data prediction



## Markets – Industrial Processes

### Clean Tech

#### Production and Quality Control – Industry 4.0



- Inline control of process parameters in rough environments with 24/7
- Integrated data processing
- Process communication direct with PCS (process control system)

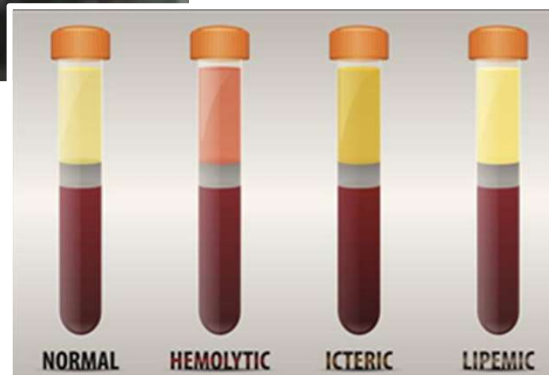


## Markets – Medical and Diagnostics Life Science

### Point-of-Care – Measurement in Blood



- Diagnostics in tubes or in-situ in blood vessels – many parameters are measurable
- Point-of-Care and patient monitoring – trends in health care
- Online measurement (quantitative and qualitative) with spectroscopy or photonics





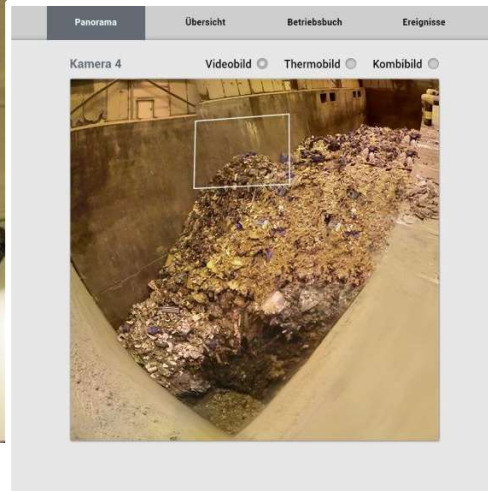
## Markets – Fire Detection

### Clean Tech

#### Insurance Protection needs Fire Detection



- Detection of very small hot-spots
- Big heat sources allowed (e.g. wheel loader) – stationary or moving
- 24/7 in rough environments (e.g. waste sites)
- Integrated visual camera for plant operator
- Integrated distance measurement to guide fire fighting and water cannon



## Markets – Wood Processing Industry

### Clean Tech

#### Incoming Goods inspection, production optimization applications



- Online / Atline Analysis during material reception for quality monitoring and more in real time – pay by quality
- Online measurement of wood in panel-/ OSB / particle board Production – save costs, achieve higher output
- Biomass Power Plant optimisation: calorific value driven combustion management – higher output
- Monitoring and optimisation of various industrial drying processes – save energy



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## Outlook – Technology

### **We are experts in non-destructive optical measurement!**

- High-precision dissection, measurement and processing of light
- Spectroscopy and photometry – UV / VIS / NIR / RAMAN / LIBS
- Analysis and mathematical processing with complex algorithms
- Easy to use for the end customer: “Smart Sensors”
- Process communication, combined with additional challenging technologies, e.g. handling systems
- Integration in machines, plants and vehicles – scalable, robust, long-lasting and reliable

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## Outlook – Markets & Applications

### What will be the challenges in the future?

- **Point of Measurement / Sensor to the Spot** - Integration in machines, plants, devices
- **Environmental Protection** - Management of resources & regulatory
- **Industry 4.0** - From quality monitoring to production control
- **Population Growth** - Best usage of our natural resources
- **Health** - Point-of-Care diagnostics
- **Consumer Applications** - Miniaturization



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PORTABLE DEVICES

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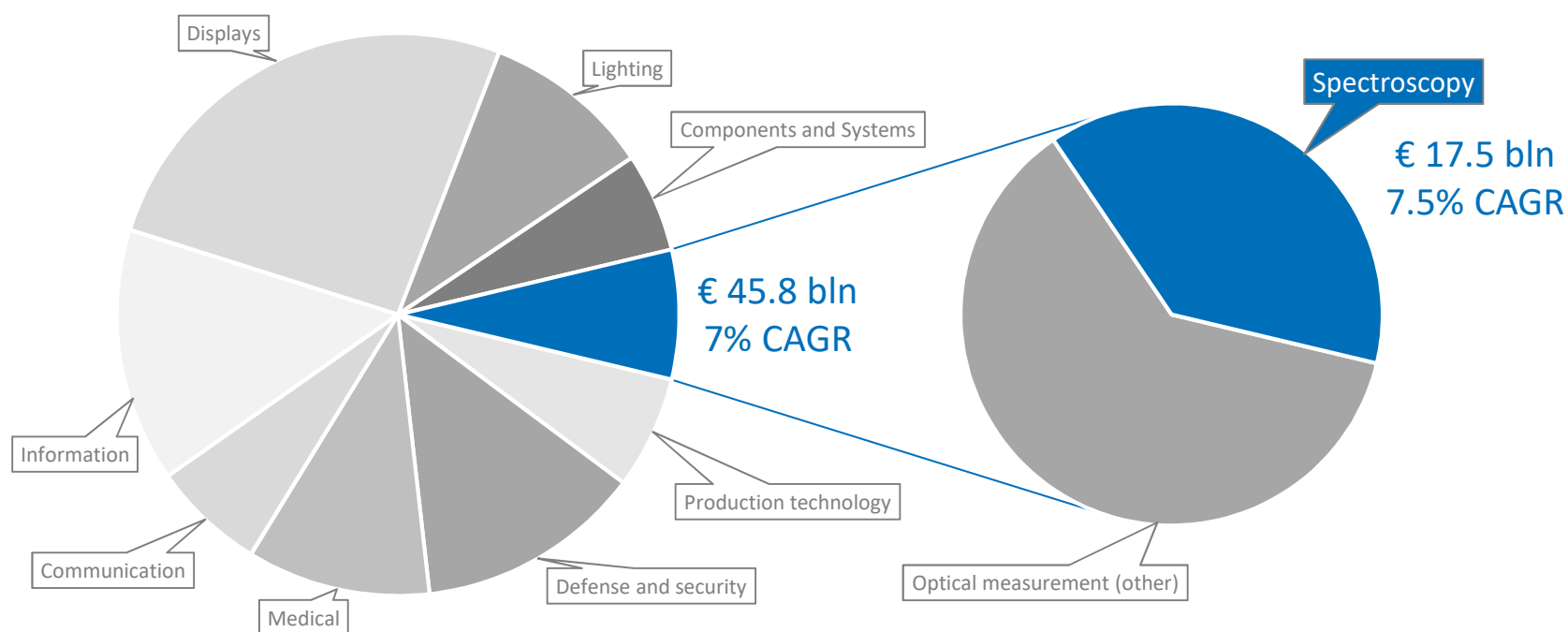
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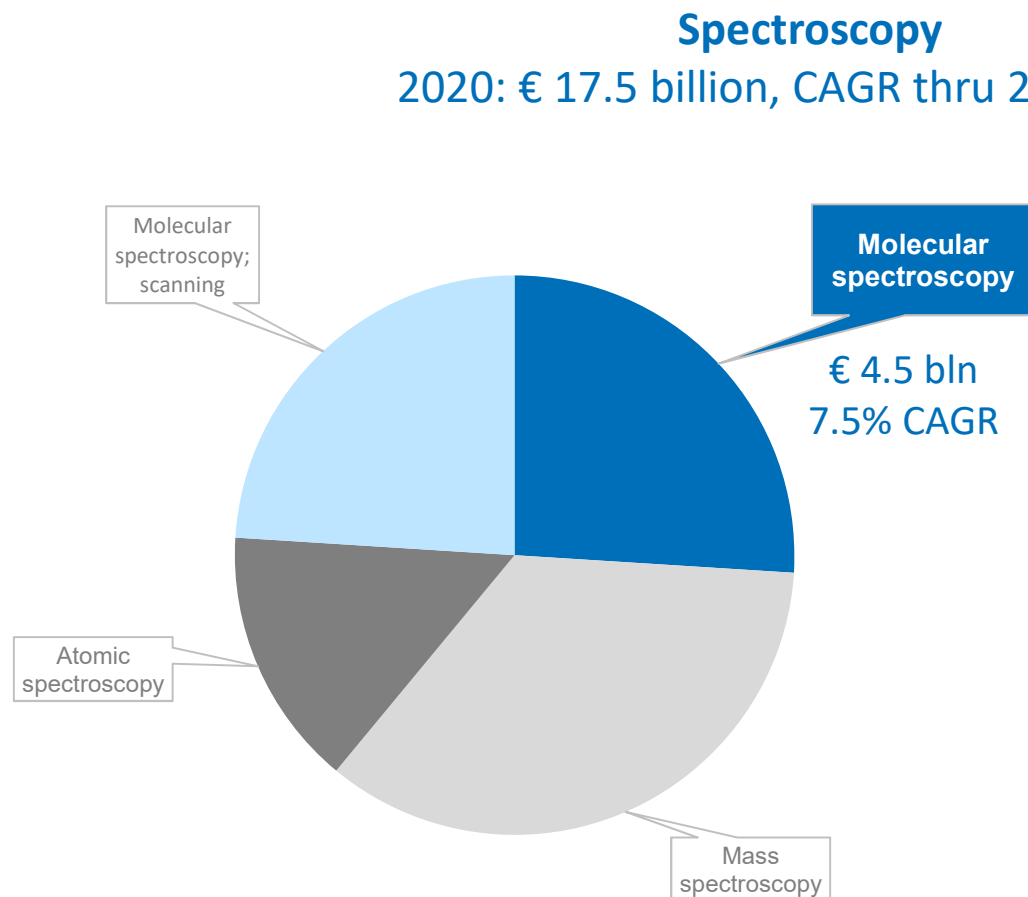
## Within the photonics-market, Nynomic is focusing on the market of spectroscopy

### Photonics

2020: € 615 billion, CAGR thru 2025: 6-8%



## Within spectroscopy, Nynomic concentrates on a large part of molecular spectroscopy



*Grand View Research:  
“Continuous adoption of spectroscopic techniques in the pharmaceutical and food & agriculture sectors, rising awareness of quality food & drugs, and various rules and regulations being imposed by governments and related organizations are among the key trends stimulating market growth.”*

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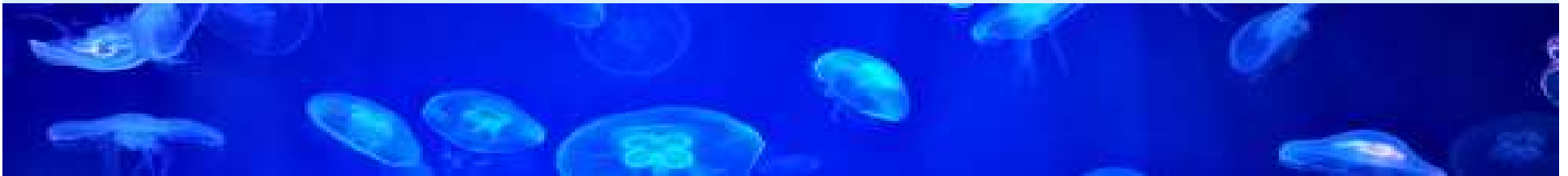
## Share – Nynomic AG

**The Nynomic AG share price shows a significant uptrend**



- Listed in Stock Index “Scale 30” as one of the most liquid companies in the Scale Segment
- The Nynomic AG share price has established a sustained presence and the performance is considerably stronger than the Index





Thank you!

## Disclaimer

**This document includes forward looking statements on Nynomic AG, its subsidiaries and associates, and on the economic and political conditions that may influence the business performance of Nynomic AG.**

**All these statements are based on assumptions made by the Executive Board using information available to it at the time.**

**Should these assumptions prove to be wholly or partly incorrect, or should further risks arise, actual business performance may differ from that expected.**

**The Executive Management Board therefore cannot assume any liability for the statements made.**

# NYNOMIC

THE PHOTONICS GROUP



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