Nynomic

(Scale All Share, Technology)

Buy

EUR 34.00

Price	EUR 21.40
Upside	58.9 %

Value Indicators:	EUR
DCF:	34.20
EVA:	35.00
Peer group:	33.85

Market Snapshot:	EUR m
Market cap:	108.5
No. of shares (m):	5.1
EV:	112.3
Freefloat MC:	108.5
Ø Trad. Vol. (30d):	137.41 th

Share data:	
Bloomberg:	M7U GR
Reuters:	M7UG
ISIN:	DE000A0MSN11

Shareholders:	
Freefloat	100.0 %

Description:

Nynomic provides contactless and non-distructive optical metrology systems

Risk Profile (WRe):	2018e
Beta:	1.2
Price / Book:	6.7 x
Equity Ratio:	31 %
Net Fin. Debt / EBITDA:	0.0 x
Net Debt / EBITDA:	0.0 x

Entering high volume smart home applications; Initiation with Buy

Nynomic is a supplier of optical metrology solutions based on spectroscopy. The company's high level of technological expertise, gained from its experience in medical and biological lab and research applications, is now being applied to new end-markets making Nynomic one of the first to introduce spectroscopy to a wide range of industries. In contrast to common optical metrology (CMM/VMM), spectroscopy does not monitor dimension, but observes a wide range of properties, including colour, temperature, humidity or even chemical composition. As a **first-mover,** Nynomic's customer relationships are well established and it is a trusted partner for design-in optical metrology solutions in numerous niche markets. It is **well positioned** to benefit from the **strong underlying market growth** for automated optical metrology (CAGE 16-23e 7.3%, source: Credence Research, Inc.).

In 2017, Nynomic grew by 11.4% to EUR 60.7m and reached its mid-term EBIT margin target of 15%. The Life Science division, which targets classic spectroscopy client industries such as medical, biotech and pharma, accounted for just 14.6% (EUR 8.9m) of group revenues. Clean Tech, which focuses on innovative industry applications (e.g. semiconductor, LED, food and beverage, railway) contributed 68.9% (EUR 41.8m) and 14.2% (EUR 8.6m) was generated by the Green Tech division, which comprises solutions for smart agriculture and environmental technologies. The remaining 2.2% (EUR 1.4m) is attributable to "Others".

With Nynomic's acquisition of Spectral Engines in May 2018, we see **new and highly attractive market potential** in a patented sensor which seems to be completely overlooked by the market. Although the company's first product has just reached market maturity, the NIRONE sensor offers basic spectroscopy functionality on optical MEMS and can be produced at significantly lower cost than a fully-fledged spectrometer. While Nynomic's systems are usually used in production equipment, this should pave the way into high-volume consumer applications. Short term, we see vast potential in the area of white goods since the NIRONE sensor is already used in applications to analyse textiles and food. We expect Nynomic to sign first framework contracts within the next month, significantly increasing the visibility for the high revenue potential.

Until 2020 we expect **average growth of 9.6% p.a.** to EUR 85.1m. Profitability might not match the 2017-level (EBIT margin 15.0%) based on costs for the ramp-up of Spectral Engines and higher D&A after the acquisition of LayTec and Spectral Engines (WRe EBIT margin 2018 14.4%). However profitability should quickly recover and reach an **EBIT margin of 15.3% by 2020**. Mid-term, the company aims for a top line of EUR 100m with a 15% EBIT margin including further acquisitions. After the latest takeovers of LayTec and Spectral Engines, we estimate this goal will be met by 2022 organically.

Based on our assumptions, Nynomic trades at an EV/EBIT of 9.0x for 2019e and 7.1x for 2020e. This implies a **discount of more than 80% to its peer group**. Adjusting for the amortisation of goodwill (EUR 2m p.a.), based on HGB accounting standards (most peers report under IFRS) adj. EV/EBIT 2019e would stand at 7.6x and 6.1x for 2020e. Considering the strong growth track record, high mid to long-term revenue potential, and the attractive ROCE of more than 30% for 2018 and beyond, we regard this high discount as unjustified. We conducted a DCF and an EVA analysis, yielding a fair value per share of EUR 34 and EUR 35, respectively. Against this background we initiate the coverage of Nynomic with a Buy rating and a price target of EUR 34, implying upside potential of 58.9%.
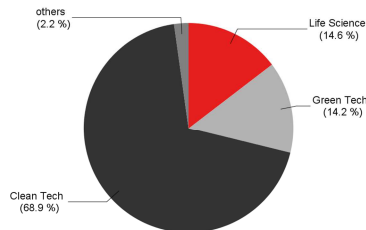

Nynomic AG — Scale All Share (normalised)

Rel. Performance vs Scale All

1 month:	-12.2 %
6 months:	13.4 %
Year to date:	21.0 %
Trailing 12 months:	53.9 %

Company events:

17.09.18	RS FFM
18.09.18	RS STR/MUC
19.09.18	RS HEL/CPH
05.10.18	RS ZRH

FY End: 31.12. in EUR m	CAGR (17-20e)	2014	2015	2016	2017	2018e	2019e	2020e
Sales	11.9 %	49.5	52.1	54.5	60.7	70.8	76.8	85.1
Change Sales yoy		20.8 %	5.1 %	4.6 %	11.4 %	16.7 %	8.5 %	10.8 %
Gross profit margin		*51.9 %*	*56.3 %*	*54.3 %*	*58.2 %*	*59.1 %*	*60.0 %*	*59.8 %*
EBITDA	16.2 %	4.6	6.8	7.9	10.2	12.2	14.1	16.0
Margin		*9.3 %*	*13.2 %*	*14.5 %*	*16.8 %*	*17.2 %*	*18.4 %*	*18.7 %*
EBIT	12.7 %	3.0	5.9	6.8	9.1	10.2	11.3	13.1
Margin		*6.1 %*	*11.4 %*	*12.6 %*	*15.0 %*	*14.4 %*	*14.7 %*	*15.3 %*
Net income	18.2 %	1.1	3.0	3.7	4.6	5.7	6.3	7.6
EPS	15.9 %	0.23	0.64	0.76	0.97	1.14	1.25	1.51
EPS adj.	21.4 %	0.27	0.67	0.80	1.00	1.34	1.53	1.79
DPS	-	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dividend Yield		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCFPS		0.17	0.76	1.13	1.74	0.88	1.81	1.98
FCF / Market cap		3.9 %	18.0 %	17.1 %	12.8 %	4.1 %	8.5 %	9.2 %
EV / Sales		0.5 x	0.3 x	0.5 x	0.8 x	1.6 x	1.3 x	1.1 x
EV / EBITDA		5.0 x	2.7 x	3.4 x	4.9 x	9.2 x	7.2 x	5.8 x
EV / EBIT		7.5 x	3.1 x	3.9 x	5.4 x	11.0 x	9.0 x	7.1 x
EV / EBIT adj.		7.0 x	2.9 x	3.8 x	5.3 x	9.7 x	7.6 x	6.1 x
P / E		18.8 x	6.6 x	8.7 x	14.1 x	18.8 x	17.1 x	14.2 x
P / E adj.		16.1 x	6.3 x	8.3 x	13.6 x	16.0 x	14.0 x	12.0 x
Net Debt		2.1	-2.1	-5.2	-15.8	0.1	-7.6	-16.0
adj. ROCE		27.0 %	49.0 %	58.2 %	51.9 %	32.8 %	30.0 %	37.8 %
Guidance:		Sales EUR 66.0-68.0m, EBIT EUR 10.0m						

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Nynomic

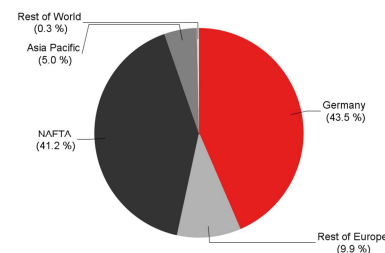## Sales by segment
2017; in %

Source: Warburg Research

Sales development
in EUR m
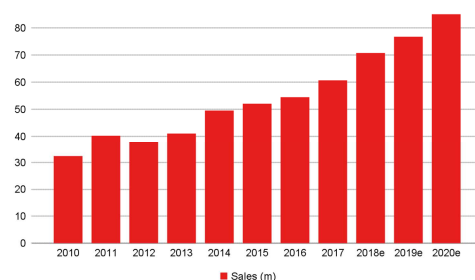
Source: Warburg Research

Sales by regions
2017; in %

Source: Warburg Research

Company Background

- Founded in 1995 Nynomic has become an international supplier for in line optical metrology systems. With a buy-and-build strategy, the company achieved 10% CAGR 14-17 and increased the EBIT margin to 15% from 6%.

- Nynomic operates three divisions, Clean Tech (68.9% of group sales in 2017), Life Science (14.6%) and Green Tech (14.2%).

- The Clean Tech division targets a wide range of industries including chemicals, semiconductors and LED & Lighting, the timber industry, food and beverages, and logistics.

- The segment Green Tech comprises Nynomic's smart farming sensor systems (e.g. soil fertility or plant assessment) as well as its environmental technology (e.g. solar module inspection).

- Life Science focuses on applications for medical technology such as spectral analysis solutions, systems for process control for medical instruments, and laboratory automation.
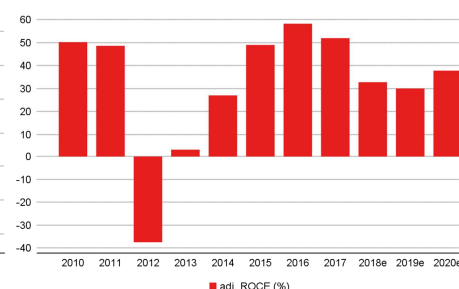
Competitive Quality

- High expertise in strongly growing niche technologies of optical metrology, which has been transferred to a wide range of industrial applications as a first mover.

- Long-standing customer relationships with deep integration in its clients' development processes and a strong reputation for critical systems in demanding end-markets like biotech or semiconductor.

- Diversified end-markets including non-cyclical industries like food and beverages, medtech, pharma, agriculture, railway as well as growth markets like semiconductor, LED and the chemical industry.

- Asset-light business model focused on system integration, with large part of the production outsourced to a network of more than 100 suppliers, using several sources for all critical components to avoid cluster risks.

- Access to the capital market allows for new market entries and adoption of new technologies via buy-and-build.
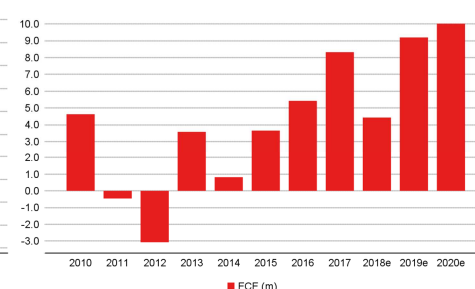
EBIT development
in EUR m
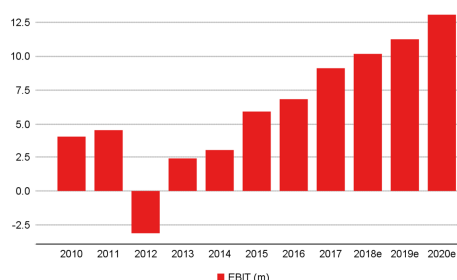
Source: Warburg Research

Adj. ROCE Development
in %

Source: Warburg Research

FCF development
in EUR m

Source: Warburg Research

Nynomic

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RESEARCH

Summary of Investment Case

Investment triggers

- **Understated outlook** – Nynomic's guidance (sales EUR 66–68m) implies additional revenues of EUR 5.3 to EUR 7.3m compared to 2017 (sales EUR 60.7m), which we view as highly conservative, considering the first-time consolidation effect of LayTec (WRe EUR 7.8m) and Spectral Engines (WRe EUR 1.5m).

- **Potential of latest acquisition overlooked** – Although Spectral Engines might only contribute some EUR 1.5m in 2018, its technology should pave the way into numerous high-volume end-markets. We expect first framework contracts to be signed within the next month, increasing the visibility of the high growth potential for the coming years.

- **Consensus upgrades expected** – Consensus estimates currently imply an organic decline in the top line, and average growth of only 8.6% from 2018 to 2020. This is significantly lower than Nynomic's average organic growth over the last years (CAGR 12-17 9.4%) and fails to take into consideration the high growth potential of the latest acquisitions LayTec and Spectral Engines.

Valuation

- **DCF model suggests a fair value per share of EUR 34** – taken as our initial price

- **Our EVA analysis yields a fair value of EUR 35** – confirming our DCF analysis

- **The stock is trading at an EV/EBIT 2019e of 9.0x** – this implies a discount of some 88% to our peer group

Growth

- **Strong historic track record in terms of compound annual growth rates (CAGR) for sales:**

    o   +13.6% over the last 10 years / +10.9% adjusted for acquisitions

    o   +10.0% over the last 5 years / +9.4% adjusted for acquisitions

- Well positioned in attractive spectroscopy niches with **underlying average market growth of more than 7%** for the next five years

- The LayTec acquisition made Nynomic market leader for inspection systems in **high growth semiconductor niches**, like VCSEL-lasers used, for instance, in Apple's Face-ID technology

- Spectral Engines should pave the way **into high-volume smart-home applications**

Competitive quality

- **High expertise** in development and system integration of spectroscopy solutions for a wide range of applications

- **Long-standing customer relationships** gives Nynomic access to its clients' projects in early development stages

- With a **buy-and-build** strategy, Nynomic uses its access to the capital market to enter new niche markets and benefits from technological spill-over and cross-selling potential.

Warburg versus consensus

- Consensus **sales forecast for 2018** (sales EUR 67m) does not seem to fully consider the first-time consolidation effect of LayTec and Spectral Engines and is thus understated (WRe EUR 70.8m)

- For 2018 to 2020 average growth of 8.6% is estimated by consensus, which seems too low, considering the high growth rate of the underlying markets as well as the new market potential addressed by Spectral Engines' technology

- In terms of profitability, consensus forecasts an EBIT margin of 15.0% for 2018, which we believe is too high owing to higher amortisation of goodwill for the latest acquisitions and the expenditure needed to enter new markets with Spectral Engines (WRe 14.4%). However, since we expect a higher top line, we end up at a similar nominal EBIT level of EUR 10.2m.

- For 2019 and 2020 we expect a rebound in terms of profitability to an EBIT margin of 15.6%, leading to average EBIT growth of 13.3% to EUR 13.1m compared to consensus forecasts of 10.0% to EUR 12.2m.

Company Overview

	Clean Tech	Life Science	Green Tech
Segments	The Clean Tech segment covers a wide range of applications for the industrial sector. From single photonic sensors and series production of components up to embedded or stand-alone spectrometer systems, the company delievers customer-specific solutions.	Focusing on medical technology the Life Science segment provides sensoric solutions for spectroscopy and instrument preperation as well as for pharmaceutical laboratories.	The Green Tech segment comprises applications for agriculture and environmental technology. For agricultural purposes, data sets about plants are recorded by optical sensors for e.g. optimised usage of fertilisers. For environmental technology, sensors are mostly use in solar or biomass energy production.
Sales 2017 (EUR m) **% of total**	41.8 68,90%	8.9 14,60%	8.6 14,20%
EBIT (EUR m) **EBIT-margin %**	**2017:**	9.1 12,6% **2016:**	6.8 15%
End markets	Semiconductors, Photonics, Lighting, Chemical, Coating/Plant, Print, Food & Beverage, Timber Industry, LED/OLED/VCSEL, Display, Wafer inspection, Fire detection	Pharma, Medtech, Biotechnology, Labs & Research	Agriculture, Solar Energy, Environmental Technology
Client concentration	In 2017 Nynomic generated aaprox. 50% of sales with the top 5 customers and approx. 60% with the top 10 customers.		
Subsidaries			

Competitors — Since there is no direct competitor with the same product range and customer basis, Nynomic competes with different enterprises, depending on customer group, product or segment. For full system solutions as well as for prototypes Nynomic competes with engineering offices or smaller privately-owned companies. In large scale production and components business competitors are larger companies (e.g. Carl Zeiss, Leica) or their subsidiaries (e.g. Leoni Fiber Optics, Honeywell Control Systems Ltd.).

Suppliers — Nynomic has a network of >100 suppliers. The inputs include standard products like cables and wiring as well as specialised products e.g. fibre optics an optical sensors. For most input Nynomic takes a multi source approach.

Sales by regions

2017

Germany 43,5%
North America 41,2%
Rest of Europe 9,9%
Asia 5,0%
Rest of the World 0,3%

2016

Germany 41,8%
North America 32,8%
Rest of Europe 18,6%
Asia 6,0%
Rest of the World 0,7%

Shareholder structure — Nynomic is listed in the Scale segment, hence shareholders have no obligation to report their stakes. After the IPO in 2007, the founders held 28.7% of the company.

Source: Warburg Research

Competitive Quality

- First-mover in transferring high level of technological know-how to new applications

- Well positioned in numerous attractive niche markets

- Long-standing and authoritative customer relationships

- Active consolidation of niche applications centred around the technological core competence (buy-and-build)

"I spy, with my little eye…"

**Strong know-how in attractive optical metrology technology**

Starting as a system-integrator for spectroscopy within the med- and bio-tech industry, Nynomic (formerly known as m-u-t) used its high level of expertise to enter new markets by offering new efficient metrology solutions. Today, the company is well positioned in several attractive niche applications in spectroscopy like smart agriculture, biomass power plants, semiconductors, LED and lighting, or food and beverage.

Spectroscopy sensors measure the wavelength reflected by an object. Compared to more common technologies in optical metrology like coordinate measuring machines (CMM) or video measuring machines (VMM), the purpose is not to measure the geometry of physical objects, but to observe a wide range of the objects' properties like colour, temperature, density, moisture or even its chemical composition. Thus, spectroscopy can, for example, measure the nitrate level of soil to optimise fertilizer output, the quality of wafers for the semiconductor industry or the level of fat, protein or fat contained in food.

Due to the non-destructive and contactless properties of optical metrology, spectroscopy had and has a disruptive effect on common methods of material analysis like probe tests and continues to discover new fields of application across different industries.

Examples of Nynomic's applications
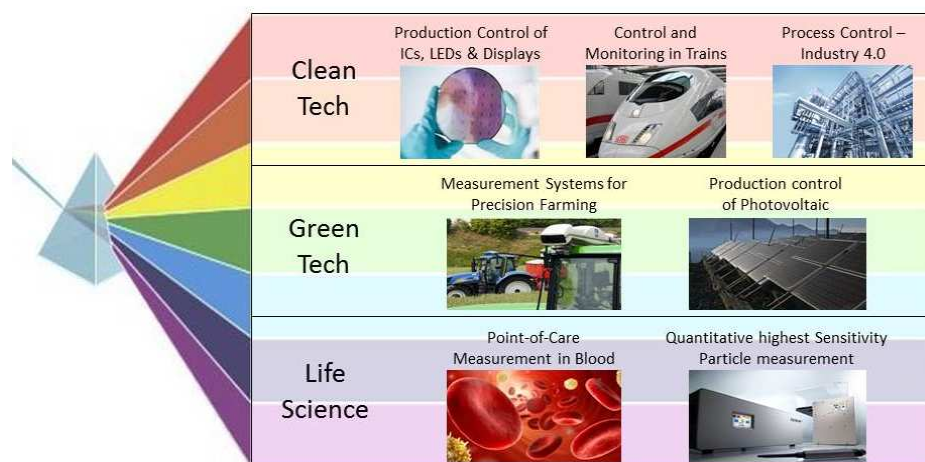
Source: Warburg Research, Company

Most of Nynomic's clients have a field of expertise with little to no overlap with optical systems. Therefore, a deep understanding of the customers' needs and an involvement in an early development stage is crucial to offering the best and most cost efficient solution. While most competitors are focused on specialised systems for bigger end-markets, system integration or on selling components, Nynomic offers a one-stop-shop covering the development, integration and supply of the highly customised, designed-in systems. With its asset-light group structure, the company can offer these systems at an attractive price level.

First-mover in numerous attractive end-markets

As a first mover, Nynomic transferred its comprehensive knowledge of spectroscopy for medical and biological research labs to industrial applications. To foster its know-how, Nynomic took over tec5 - a supplier of advanced electrical systems - in 2007 and Avantes - a spectroscope producer - in 2008. This vertical integration enabled the group to develop and produce most of the critical parts for its systems in-house. Thus, Nynomic is often included in the early stages of its clients' product developments and has become a trusted partner for designed-in OEM solutions.

Although the company is usually compensated for development and prototyping while the clients retain the intellectual property, Nynomic has gained vast experience in a wide range of industries that spilled over into other applications or enabled the group to enter new end-markets.

Focused on OEM services

To differentiate from smaller system integrators for spectroscopy, Nynomic focused on larger OEM customers. While the applications can still be seen as a niche, the customers are often internationally operating, large-scale companies and smaller players are usually not in a position to meet the requirements of such companies in terms of delivery reliability, call-off stock or international setup.

customer relationships are stong, established and resilient

Nynomic has established long-standing and resilient customer relationships based on its integration in its clients' product development. To protect intellectual property, customers rely on trusted partners within the development stage rather than sparking competition between their suppliers. As a result, Nynomic often becomes an exclusive supplier.

Following the strategic focus on OEM customers, Nynomic has divested some smaller-scale businesses like the direct distribution of automation solutions to labs. However, it remains a supplier for larger lab equipment manufacturers. Prototyping was also drastically reduced, particularly if there was little prospect of becoming a supplier in larger-scale serial production. This enables Nynomic to benefit from economies of scale, as development effort results in higher and more long-term revenues. On the downside, cluster risk on the client side is relatively high with the top five customers generating some 50% of sales. However, the second half of the revenue is highly diversified as the next five customers contribute only around 10% to group sales.

High costs of change

The solutions Nynomic provides, especially in the OEM business, are highly customised and designed into the clients' products. Nynomic is usually compensated for the development and the prototyping while the clients benefit from economies of scale if the systems are used in large serial production. At the same time, the client has an incentive to use Nynomic's solution exclusively, since the development and ramp-up of a second source would be rather cost intensive. Even more so as metrology is often critical to the quality of the output, making it subject to extensive and time-consuming certification processes. Thus, the likelihood of losing a product to a competitor is low.

Loss of a product to a competitor is unlikely

Diversified supplier network

Despite the deep vertical integration within the group, when products go into serial production Nynomic uses a fab-light approach, which lowers the company-internal value-add and the capex requirements. The systems use several standard components like wiring or fibre cables. Although Nynomic's pricing power might be limited, these markets are highly competitive, keeping prices at an attractive level. For more specialised optical components, we believe Nynomic might have some pricing power, owing to its group-size and its own production capacity.

Asset-light in serial production

Network of >100 suppliers with second sources for all critical components

Nynomic uses a network of more than 100 suppliers and several sources for all critical components. The latter is mainly a requirement of the customer but, at the same time, strengthens Nynomic's bargaining position and reduces the cluster risk on the supply side. In some cases, OEM customers pre-select suppliers, shifting all risk related to suppliers and fluctuating prices to the customer.

Unique setup within niche markets

There is no comparable competitor that we know of within Nynomic's end markets. Larger suppliers of spectroscopy systems are usually active in more traditional market segments like medical technology, biotechnology and laboratory and research equipment (eg. Stratec), focus on standardised metrology systems for larger-scale applications within the electronics, semiconductor industry or oil and gas (eg. ASML, KLA, Honey Well, Hexagon, Nanometrics) or sell components (eg. Ocean Optics, Carl Zeiss)

One-stop shop for designed-in spectroscopy systems

Within Nynomic's niche applications, competitors in the development phase are typically smaller engineering service providers. As already mentioned, smaller firms often lack the ability to become a supplier in an international roll-out of a serial production. Therefore, the OEM customer usually has to source components directly. However, spectroscopy is often far from their field of expertise, making a one-stop shop like Nynomic highly attractive as it offers development, design-in, production and system-integration.

Apart from the inability of smaller players to meet the requirements of serial production and the unwillingness of larger players to provide customised solutions for niche applications, established customer relationships pose the greatest barrier to market entry. As a first-mover, Nynomic is now deeply integrated in its clients' product development and supply chain. These customers often have a leading market position within their markets, making it difficult for new players to gain a critical mass within each niche. Metrology is, in many cases, critical and several end markets like the food and beverage or pharma industry are highly reluctant to change critical systems from a trusted partner.

The group approach often supports Nynomic's reputation across end markets. Suppliers of lab equipment trust Nynomic with clean-room applications, knowing that it also engages in some niche semiconductor fields. The food and beverage industry values a supplier that meets the high standards of the pharma and biotech industry. In agriculture, the food and beverage expertise is appreciated.

Buy-and-build strengthens competitive quality

To strengthen the competitive quality Nynomic uses a buy-and-build strategy. With acquisitions, the company adds new applications to its portfolio and enters new end markets. The targets are often smaller companies with a leading market position within their niche applications like APOS, a leading supplier of optical metrology for the timber industry and biomass power stations, and LayTec, leading in inspections systems for LED and VCSEL epitaxial wafer. The acquired subsidiaries benefit from group synergies in terms of purchasing and spill-over effects in product development and the group structure supports the subsidiaries' OEM business with larger customers. For Nynomic the scalability of its high level of technological expertise increases with every new end market application based on spectroscopy.

Besides the goal of achieving faster market entry, Nynomic uses M&A to acquire new technologies that round off the product portfolio in existing markets. In this respect, Spectral Engines, the latest acquisition, was a perfect fit. The company's NIRONE sensor has significant revenue potential in markets where Nynomic is already active, like smart agriculture and smart industry applications, but could also pave the way into consumer products (eg. white goods, smart home) with significantly higher lot sizes than production equipment.

Actively consolidating different spectroscopy applications into one focused company by applying a buy-and-build strategy requires funds. In that respect, the access to capital markets can be seen as another competitive advantage over smaller niche players.

Growth

- Strong historical growth track-record with a CAGR 07-17 of 13.6%

- High underlying market growth with a CAGR 16-23e of 7.3%

- Latest acquisitions enable Nynomic to enter new markets with high growth potential

- Guidance and consensus estimates understate short- and mid-term sales development

Solid growth history and an attractive market environment

Organic CAGR 12-17 of 9.4%

Since the IPO in 2007, Nynomic has had a rather stable growth track record with an average growth rate of 13.6% over the last 10 years or 10.0% over the last five years,. Acquisitions in the context of the buy-and-build strategy also had an impact on growth, for instance, Avantes in 2008 (Sales 2007 EUR 3.9m) and APOS in 2016 (Sales 2015 EUR 1.7m WRe). Adjusted for these effects, Nynomic can still show a solid organic CAGR 07-17 of 10.9% and a CAGR 12-17 of 9.4%.

Sales development

Source: Warburg Research
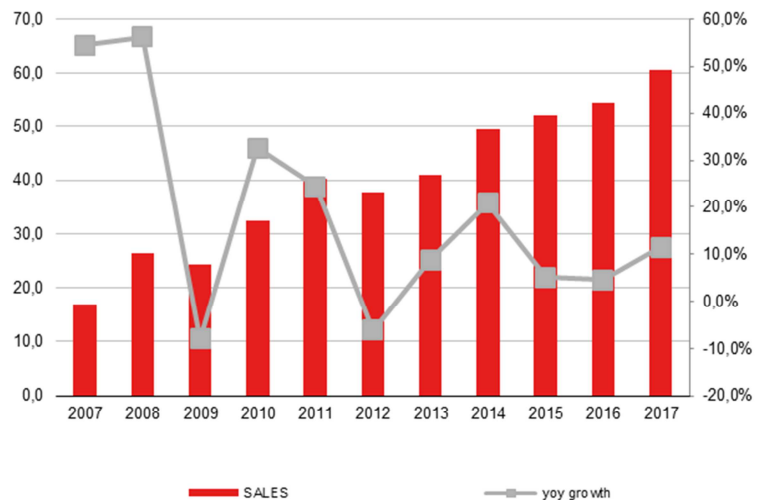
Notable outperformance of the underlying market growth

The strong top-line development is a result of Nynomic's high competitive quality in an attractive market environment with a growing demand for innovative measurement solutions. Within the last 10 years, German sensor and metrology revenues grew at an average rate of 5.8%. Since 2013, momentum has increased even further to an average growth rate of 6.7% (source: AMA German Association for Sensors and Measurement). The market is driven by innovation. In 2016, the revenue share of products developed within the last three years was 35.6% compared to 13.6% for the overall German economy (source: ZEW). We believe Nynomic's ability to be highly innovative is a key factor in its outperformance of the market.

Looking smart

Driven by smart industry applications

To gain efficiency in smart processes, monitoring is a key element. In this respect, optical metrology is a powerful tool. As it is contactless and non-destructive, it can be designed into production or handling processes with a minimum of interference. Over the past years, optical sensors have advanced considerably. The sensors have become smaller, more accurate and less expensive. What's more, optical metrology isn't limited to the measurement of size. Using spectroscopy, sensors can monitor many material properties from simple characteristics like colour to more advanced applications like the assessment of the chemical composition.

As a result, the growth momentum of optical metrology is likely to be maintained. The market for automated optical metrology has grown at an average rate of 7.4% since 2014 and, by 2017, had a volume of USD 1.1bn. By 2022, it is projected to reach more than USD 1.6bn (CAGR 7.3%) (Source: Market Research Engine, Credence Research, Inc.).

Latest acquisitions offer high growth potential

Nynomic continues to pursue its buy-and-build strategy and recently acquired two companies, LayTec in November 2017 and Spectral Engines in May 2018. These should have a significantly positive impact on group growth in the coming years.

Market leader in LED and VCSEL epitaxial wafer inspection

LayTec is an international supplier of in-situ metrology and process control for the semiconductor industry. The company holds a market-leading position in fast-growing niches like inspection systems for LED and VCSEL epitaxial wafer. The LED lighting market is projected to grow at an average rate of 14.4% until 2025 (source: Grand View Research, Inc.). While growth was triggered by LED luminaires in the past, in 2016 OLED emerged as the largest product segment. With advanced display applications the major market driver today, suppliers of high-end production equipment like LayTec should benefit.

LayTec should benefit from the roll-out of Apple's Face-ID

However, we believe the biggest growth driver for LayTec will be VCSEL laser, which is mainly used for optical data transfer in fiber networks and has recently seen an enormous increase in demand as Apple uses VCSEL lasers for the Face-ID in the iPhone X. The further adoption of this 3D sensing technology may lead to an increase in demand for VCSEL Laser of more than 70% in 2019. Since worldwide production capacities already show high levels of utilisation, demand for equipment should see a notable increase in the coming years.

In 2017 LayTec generated a low double-digit EBIT margin on revenues of some EUR 7m. We expect the subsidiary to grow at an average rate of 15.1% until 2021 and to reach the group's 15% margin target by 2019. LayTec has been contributing to the Clean Tech division since the beginning of this year.

Spectral Engines paves the way to several new applications

In May Nynomic acquired 75% of Spectral Engines, a Finnish technology start-up that generated some EUR 0.4m revenue in 2017. Based on the half-year figures, we estimate the purchase price at around EUR 12m. While this might seem expensive at first glance, Spectral Engines technology offers tremendous market potential.

The company's patented NIRONE Sensor uses a Micro Electro Mechanical System (MEMS) Fabry-Perot Interferometer enabling fast and reliable measurements. Compared to a fully-fledged spectrometer the technological applications are limited, but come with a considerably lower price tag. We believe this will open the door to new market segments with significantly higher lot sizes.

Significant revenue potential in smart white goods applications

We see a great deal of potential in smart home applications. Spectral Engines already developed a food scanner that can be connected to a smart phone to detect the fat, protein, sugar and total energy content of food items. When integrated to a refrigerator, it could detect and monitor the fresh items stored. Another application could be an analysis of textiles to automatically determine the appropriate cleaning programme. In addition Spectral Engines' NIRONE Sensor uses cloud applications making it especially attractive for use in consumer products.

Besides high-volume consumer end-markets, the technology has high cross-selling potential with other price sensitive end-markets in which Nynomic is already active. In smart farming Spectral Engines could provide a cost efficient solution for moisture analysis. For environmental control in smart industries, sensors could be used for measuring hydrocarbon. In the medical technology sector, it could enable some basic

tests to be carried out at the point-of-care rather than sending samples to an external laboratory for cost-intensive and time-consuming tests.

Nynomic is currently in extensive negotiations regarding a number of projects. Although no details have been disclosed, we expect first outline agreements before the end of the year. Spectral Engines has been consolidated since May, and we estimate a top-line contribution of some EUR 1.5m for 2018. With the first product launches next year, we expect sales to more than double to EUR 3.5m. With Spectral Engines' no fab approach and manageable cost base, this should enable the company to reach breakeven in the second half of the year. We expect the company to cross the EUR 10m sales threshold by 2022 at a low double-digit EBIT margin.

Attractive prospects in all divisions

Nynomic addresses a broad variety of end markets, each with different growth prospects.

Life Science: home of spectroscopy

There is already high penetration of spectral systems in the medical / bio-technologies and pharma-industry, the target markets of the **Life Science** division. In these industries, spectroscopy is a common tool for sample analysis. Growth in the Life Science division should be below market-average, despite the availability of new applications driven by smaller, more accurate and, above all, less expensive sensors (e.g. quick tests for sample corruption).

In 2017, unit sales decreased by 30.3% to EUR 8.9m (14.6% of group revenue) after an extraordinarily strong 2016 (+59.8% yoy). Within the last years, Life Science figures have fluctuated, due to shifts in its clients' order schedules. An overall growth trend could not be observed. Until 2020, we estimate a CAGR of 3.1% and hence, a moderate outperformance of underlying market growth for spectroscopy equipment in pharmaceutical and biotechnology (CAGR 18-23: 2.8%, source: BCC Research). This assumption is based on a mean reversion after a weak 2017 that has already begun to show in H1 with top-line growth of 18.3% to EUR 5.0m. Therefore, our estimates are still conservative due to the weak growth track record.

Green Tech: Agriculture 4.0

In the **Green Tech** division, Nynomic focuses on solutions for agriculture and environmental technologies (e.g. solar panel inspection, biomass power stations). The segment has shown a CAGR of 24.4% since 2013, mainly driven by smart farming applications. The smart agriculture market has an estimated volume USD 7.5bn in 2018 and is projected to reach USD 13.5bn by 2023, implying a CAGR of 12.4% (Source: MarketsandMarkets, Inc.). As precision farming tools and yield monitoring are playing a major role, applications which help identify manure parameters to maintain sufficient nutrients should grow at an even higher rate than the overall market.

EU Nitrates Directive driving demand for smart agriculture applications

However, demand for precision farming is not driven solely by efficiency gains but also regulation, especially in Europe. In June 2018, the European Court of Justice deemed that Germany had violated an EU Nitrates Directive (91/676/EEC) designed to reduce groundwater pollution from manure. Other European countries, including France and Belgium, have also been fined for violating these rules in the past. Nynomic's systems, installed on agricultural machinery, enable a real-time assessment of the manure to optimise fertilizer output and offer powerful tools to minimise groundwater pollution. A survey conducted by pwc indicated that more than 50% of German farmers have already invested in smart farming solutions and more than 75% are regularly gathering information on this topic.

We believe Nynomic is well positioned to benefit from the ongoing strong demand for smart farming. Moreover, Spectral Engines might offer new market potential. Especially on smaller, less expensive farming equipment, end customers are rather price sensitive.

Hence, an affordable solution to monitor basic soil characteristics should meet the demands. However, for the Green Tech division we estimate average top-line growth of 11.2% to EUR 11.8m by 2020, as it will take some time for these applications to reach market maturity. Furthermore, top-line growth in the segment might be restrained by less dynamic development in environmental technologies, where we assume a rather flat revenue level.

Clean Tech: disruption as a service

The **Clean Tech** division comprises optical metrology applications for a wide range of diverse industries such as semiconductor, LED/OLED, chemicals, print, rail, and fire detection. Since 2013, the segment's revenues grew at a CAGR of 15.7% to EUR 41.8m in 2017 and thus clearly outperformed the market for automated optical metrology (CAGR 7.4%).

Clean Tech to grow at a CAGR 17-20 of 14.2% driven by LayTec

For 2018 we forecast revenues of EUR 50.3m (+20.2% yoy), mainly driven by the first-time consolidation of LayTec (WRe EUR 7.8m). From 2018 to 2020 we estimate average growth of 11.2% to EUR 62.2m. The expected outperformance of the market for automated optical metrology (CAGR 16-23 7.3%; source: Credence Research, Inc.) is a result of the high growth potential of LayTec and Spectral Engines as mentioned earlier.

As in Green Tech, the high growth rate expected of LayTec and Spectral Engines will be restrained by the business in the more defensive end-markets of this division, like food and beverages. Here, the underlying average market growth for spectroscopy is expected to be some 3.3% p.a. (Source: BCC Research).

Sales development by division

|	2016	2017	2018e	2019e	2020e
Life Science	12.7	8.9	9.6	9.7	9.8
yoy	59.8%	-30.3%	8.2%	0.8%	0.6%
Green Tech	7.2	8.6	9.6	10.6	11.8
yoy	33.6%	19.6%	11.5%	10.2%	11.8%
Clean Tech	33.1	41.8	50.3	55.2	62.2
yoy	-4,7 %	26,3%	20,2%	9,8%	12,7%
Others	1.4	1.4	1.3	1.3	1.3
yoy	-64.8%	-2.9%	-5.0%	0.0%	0.0%
Group	**54.5**	**60.7**	**70.8**	**76.8**	**85.1**
yoy	**4.6%**	**11.4%**	**16.6%**	**8.5%**	**10.8%**

Source: Warburg Research

Group outlook

Guidance understates growth potential

For 2018, Nynomic is guiding for a top-line range of EUR 66-68m or a growth rate of between 8.7-12.0%, which seems clearly understated. Adjusted for the consolidation effects of LayTec, (sales 2017 ca. EUR 7m) the outlook implies organic growth in group sales of -2.5 to 0.4%. The H1 figures confirm our view. Sales were up 15.6% yoy to EUR 36.3m, leaving a low bar for H2 with additional revenue of just EUR 0.4 and 2.4m compared to 2017 needed to meet the guidance. On top of the already mentioned LayTec acquisition effect, we should also see a contribution from Spectral Engines, which is included in the scope of consolidation since May (WRe EUR 1.5m). Overall, we expect group sales to grow by 16.6% to EUR 70.8m for the full year.

In the medium term, Nynomic plans to grow at a CAGR 2017-2023e of 10% and hence, would exceed EUR 100m revenues in 2023. However, this growth target includes future acquisitions that are not accounted for in our estimates. But even without any further

transactions, based on the high market dynamics in smart farming and semiconductor equipment and new products based on the Spectral Engines technology, we expect Nynomic to reach a top line of EUR 102.7m organically as early as in 2022.

Sales development
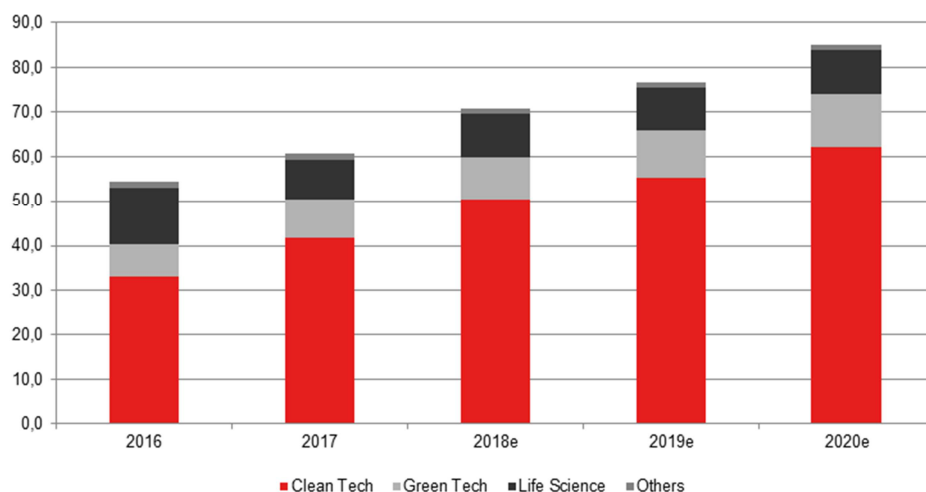
Margins should recover quickly after short dip in 2018

With respect to earnings, Nynomic is planning for EBIT of EUR 10m, which is in line with our expectations (WRe EUR 10.2m). Based on our top-line estimate, this represents an EBIT margin decline from 15.0% in 2017 to 14.4% in 2018. This also implies a margin drop in the second half of the year from 15.9% in H1 to 12.8% in H2.

This decrease is partly explained by Nynomic's usual seasonality. Within the last five years the average EBIT margin in H1 stood at 12.3% compared to an average of 8.0% in H2. It is also explained by the margin-diluting effect of the acquisitions - LayTec and Spectral Engines. Nynomic stated that LayTec generated an EBIT margin below the 15% group-average in 2017. Spectral Engines was loss-making. After its product was first introduced to the market in 2017, we expect further expenditure for the roll-out of this product in 2018 and 2019.

While we expect operating profitability to rise, the negative effects of absorbing the latest acquisitions will offset these gains. As a result of the acquisitions, the company's goodwill increased significantly from EUR 2.4m at the end of 2016 to EUR 21.4m after H1 2018. Under HGB accounting, goodwill is subject to regular amortisation and should lead to a significant increase in D&A by some EUR 1m in 2018 and EUR 2m from 2019 onwards, when Spectral Engines is consolidated on a full-year basis. Adjusted for the amortisation of goodwill, the EBIT margin would increase from 15.4% in 2017 to 16.4% in 2018 and reach 17.3% by 2019.

High amortisation under HGB accounting dilute margins

We assume profitability will quickly recover in the coming years. LayTec should benefit from the group's centralised purchasing and close the gap to the group's 15%-EBIT margin target by 2020 (WRe 15.3%). Spectral Engines' no fab approach, lean cost structure and high cross-selling potential within the group should allow for a quick turnaround. We expect the subsidiary to be contributing to earnings by 2020.

In the course of the latest acquisitions, interest-bearing liabilities increased significantly by EUR 18.4m. As a result, we expect interest expenses to double from EUR 0.2m in to EUR 0.4m in 2018. Due to the loss-making subsidiaries APOS and Spectral Engines, the tax rate should stay above 30% in 2018 (32.2%) and 2019 (30.8%) and drop below 30% after the expected turnaround in 2020 (28.9%). This leads to a net income of EUR 6.6m for 2018 increasing to EUR 8.9m by 2020.

EBIT development
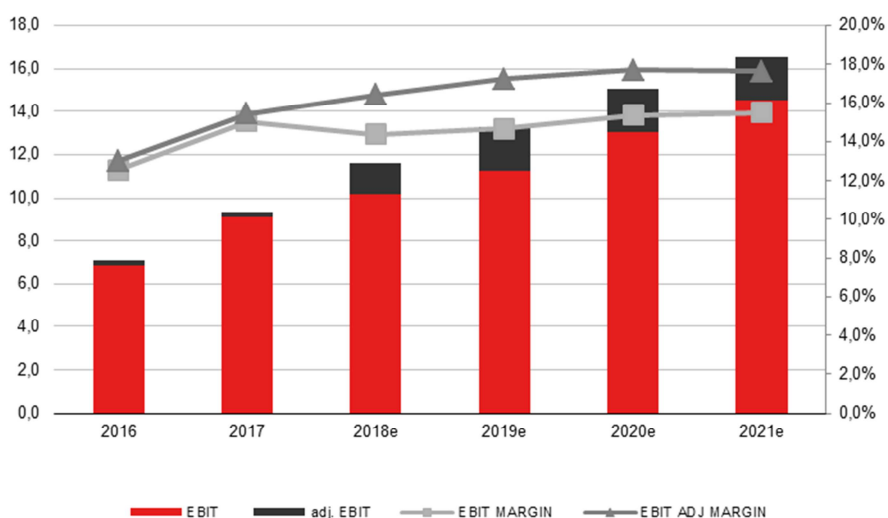
Source: Warburg Research

Warburg vs. consensus

The consensus estimate for 2018 sales is EUR 67m, which is the midpoint of the guidance and, as already expressed, a clear understatement in our view, since it implies that revenues adjusted for consolidation effects will decrease. As we see no indication that this might be the case, the market's top-line expectations should increase in the coming month.

Impact of the latest acquisitions underestimated

For the following years, consensus forecasts a CAGR 18-20e of 8.5% vs. our forecast of 9.6%. We believe that the market is still underestimating the high growth potential of the latest acquisitions. Considering the limited visibility regarding the release of the first serial products of Spectral Engines, our estimates are rather conservative. In the next six months, we expect Nynomic to announce framework contracts, which would mean upgrade potential for our forecasts.

With respect to profitability, consensus puts the EBIT margin at 15.0% or an EBIT of EUR 10.0m, which is in line with Nynomic's outlook. As argued, the higher amortisation of goodwill and the lower profitability of the revenues contributed by LayTec should have a dilutive effect on margins. However, our higher group sales estimate puts WRe at a similar nominal EBIT value (EUR 10.2m). Still, market estimates do not incorporate the margin rebound included in our forecast leading to higher average EBIT growth of 13.3% until 2020 compared to 10.0% growth forecast by the consensus.

Returns

- Low degree of company-internal value-add with avg. capex/sales 1.7% within the last five years

- Attractive 5y avg. ROCE of 54.2% despite high working capital needs (avg. 5y NWC/Sales 19.7%)

- Capital employed significant after the latest acquisitions, but should decrease over time due to amortisation

Capital employed

Focus on the right part of the value chain…

Nynomic is a supplier of optical measurement systems using spectroscopy. The core competence is the application of its high-level technological expertise and the deep understanding of its customers' needs to develop and provide a cost efficient designed-in solution. With Avantes as a supplier of high-end components and spectroscopes and tec5 as a system integrator for electronical systems and integrated spectrometer systems, Nynomic has the capability to cover large parts of the value chain, if necessary.

Asset-light business model

However, with the strategic focus on large-scale OEM product lines and the company's core competence, Nynomic keeps a low degree of company-internal value-add. The latest acquisition, Spectral Engines, fits the profile perfectly with its cutting-edge optical MEMS and its fabless production approach.

…keeps capex at a low level…

As a consequence of the focused strategic approach, maintenance capex requirements are low. After the first six months of 2018, plant and equipment accounted for only EUR 1.9m or respectively 3.1% of total assets. Intangible assets of EUR 23.5m make up 38.1% of total assets. However, the largest portion by far is goodwill (EUR 21.4m) as a result of Nynomic's buy-and-build strategy. The acquisition of LayTec alone, led to an increase in goodwill of EUR 7.8m. The consolidation of Spectral Engines in May 2018 added another EUR 12.9m. Capitalised R&D and other intangibles sum up to just EUR 2.1m or 3.4% of total assets. Maintenance capex in 2017 stood at EUR 0.7m or 1.2% of sales.

Fixed assets highly inflated by goodwill

Balance sheet FY 2017
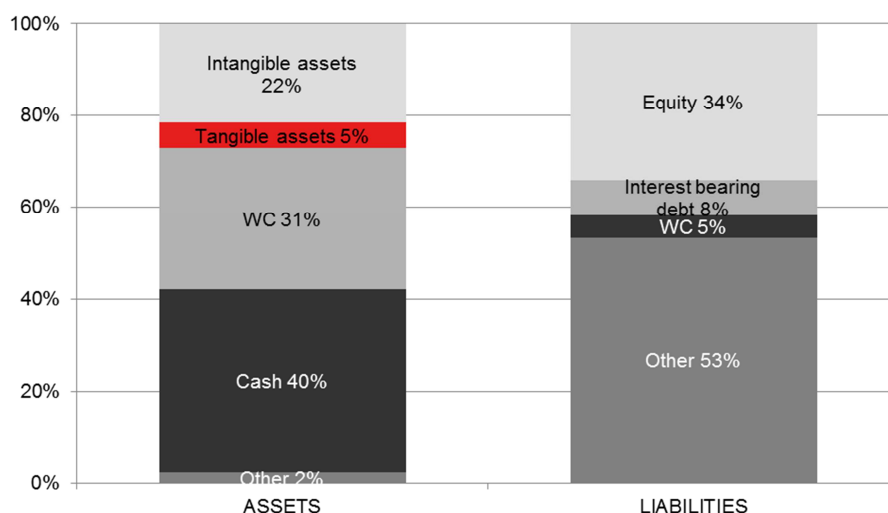
Source: Warburg Research

…but boosts working capital needs

The flip-side of the asset-light business model is the high level of working capital. At the end of 2017, NWC stood at EUR 12.2m or 20.1% of sales, and thus close to the five-year average of 19.7%. After the first six months of 2018, NWC increased EUR 4.6m to EUR 16.9m mainly due to balance sheet date effects. The high level of working capital is a result of customer requirements for a certain level of flexibility in release orders. Furthermore, due to the low degree of company-internal value-add, Nynomic has to keep stocks of semi-finished goods. Thus, inventories make up the largest portion of working capital at EUR 8.8m in 2017. Inventory turnover (7.2x) has been a little low compared to the five-year average (7.4x) due to the consolidation of the LayTec assets, while 2017 sales have not been consolidated, yet.

Receivables (EUR 6.5m) exceed payables (EUR 2.4m) by 170.8%. On a five-year average, Nynomic collected its receivables after some 37 days, whereas it pays its suppliers in 15 days, meaning that it pre-finances its customers. This, we believe, is the flip side of the long-term client relationships compared to the short-term orders of standardised products it sources from its suppliers.

Working capital development
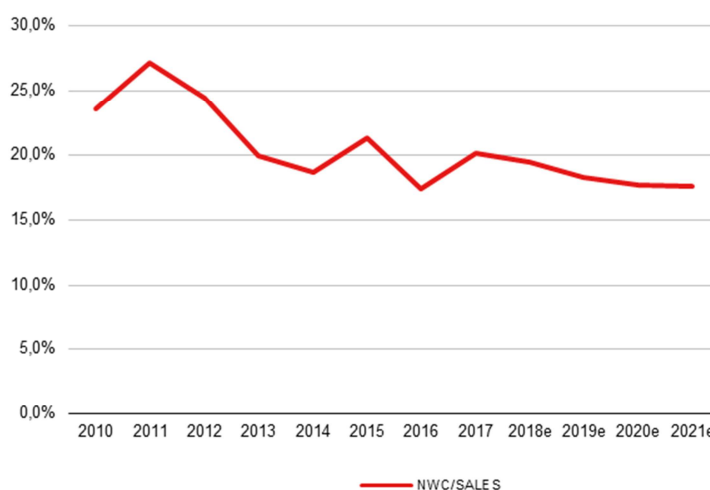
Source: Warburg Research

Amortisation should improve capital efficiency over time

*Amortisation of goodwill should reduce capital employed*

As stated above, intangible assets increased significantly with the acquisitions of LayTec and Spectral Engines. However, since Nynomic applies HGB accounting standards, these are subject to amortisation, usually over a 10-year period. Without taking further acquisitions into account, this should reduce capital employed by some EUR 2.3m p.a.

We also see further room for improvement in working capital turnover. First, the assets from the LayTec acquisition were already consolidated in 2017 but this is not yet visible in the P&L. Thus, the estimated EUR 7.8m sales from the first-time consolidation shouldn't require additional working capital. Furthermore, focusing on larger-scale OEM business should result in a growing share of outsourced production, reducing the amount of semi-finished goods held in stock. In 2018, we estimate a drop in NWC/Sales from 20.2% in 2017 to 19.5%. Mid-term, we see a further decline to 17.7%.

For 2017 we adjusted capital employed, since LayTec's assets, including a cash position of EUR 4.5m was already consolidated, but had not yet been paid for. This created short term provisions of EUR 14.5m, which we included in the capital employed. These amounted to a total of EUR 15.4m. At the end of 2018 capital employed should reach EUR 26.8m including Spectral Engines. We estimate a decrease to EUR 23.4m in 2021. Since we assumed amortisation over a 10-year period, this decrease continues until 2027.

Capital employed development
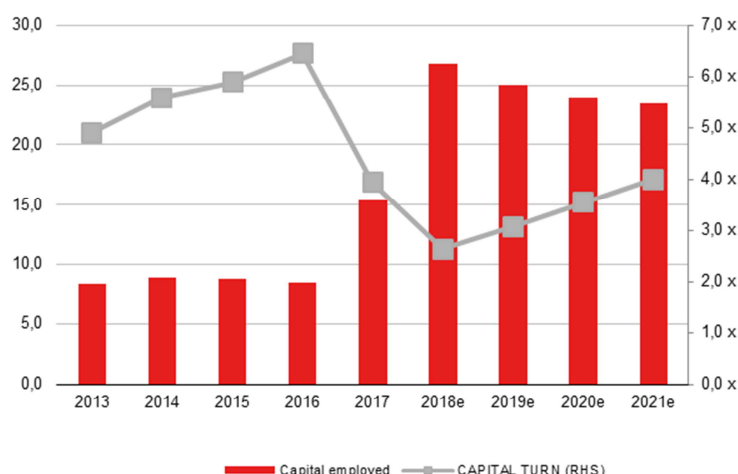
Source: Warburg Research

Operating profitability

Within the last five years, Nynomic increased its operating margin from 6.2% in 2013 to 15.0% in 2017. Since we assume Nynomic's pricing power to be limited, this increase should be attributable to a positive product mix, economies of scale and purchasing power. In 2018, the company aims for an EBIT of EUR 10m, which would represent an EBIT margin between 14.7% and 15.2%, considering the sales guidance of EUR 66–68m. Despite some margin-dilution effects associated with Nynomic's buy-and-build strategy, the company aims for an average EBIT margin of 15% over the cycle. From an operational perspective, this mid-term target seems rather conservative.

Focus on OEM products

In recent years the company has been focusing on large OEM customers to increase the scalability of the company's strong development know-how and to better utilise its purchasing power. Due to the low level of company-internal value-add, Nynomic's fixed costs are mainly personnel expenses for engineers in the R&D unit and sales staff. Operating profitability should thus benefit from an increasing portion of designed-in products in large-scale serial production with a long product life cycle. At the same time, larger quantities of products using the same input increase the purchasing power and have a positive effect on material costs.

Outlook

Although Nynomic already reached its mid-term goal of a 15% EBIT margin in 2017, we still see room for improvement. The operating profitability is burdened by amortisation of goodwill. Adjusted for these effects, the Nynomic EBIT margin would have been 15.4%.

For 2018, we assume a decline in the EBIT margin, mainly due to the newly-acquired subsidiaries LayTec and Spectral Engines. LayTec generated an EBIT margin below group average in 2017 and should still have a dilutive effect in 2018. We expect the company to benefit from synergies in sourcing and marketing and to reach the group margin level in 2019.

Spectral Engines, which has been consolidated since May 2018, will also have a negative impact on this year's EBIT. Nynomic plans to invest up to EUR 15m in the latest acquisition, including the purchase price of EUR 12m (WRe), leaving up to EUR 3m to cover further costs. We expect Spectral Engines to reach breakeven in 2019 and to contribute to the operating income on a full-year basis starting in 2020.

Overall, we estimate an EBIT margin of 14.4% for 2018. Until 2021, we expect a margin increase of 90bps to 15.3%, mainly driven by improved profitability at APOS, LayTec and Spectral Engines.

EBIT development
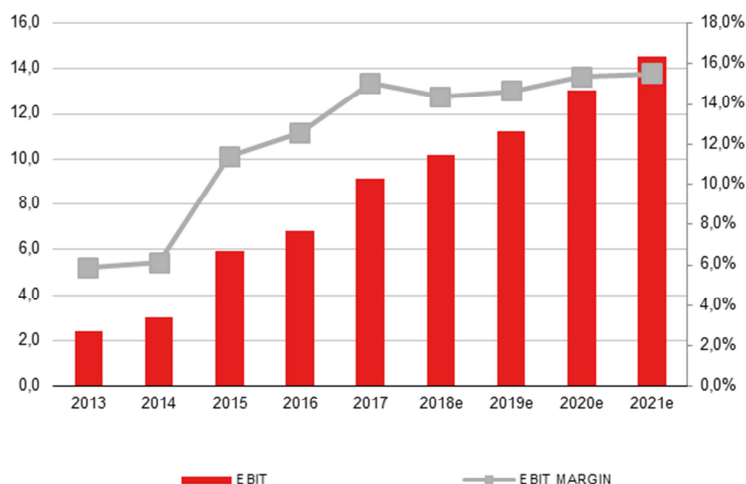
Source: Warburg Research

ROCE

ROCE (NOPAT) increased significantly in the last years from 48.6% to 58.2%. This was attributable to the relatively stable level of capital employed prior to the latest acquisition (adj. CAGR 11-16 2.0%) and the strong EBIT improvement (CAGR 11-16 8.4%). In 2017 due to the increase in goodwill ROCE dropped to 51.9% and should, after the acquisition of Spectral Engines see another decrease to 32.7% in 2018. As capital employed decreases driven by the amortisation of goowill in the course of the next 10 years, ROCE should increase to 42.9% in 2021. Long term, as the goodwill is written off, we see potential ROCE of more than 75%.

ROCE development
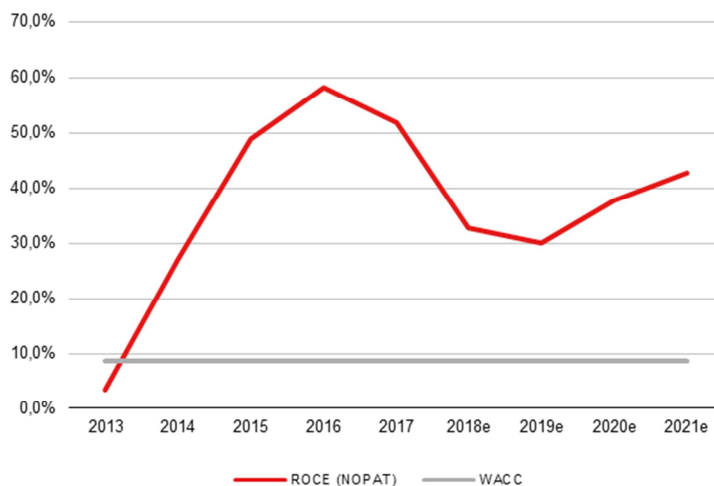
Source: Warburg Research

Valuation

- We based our target price on a DCF analysis

- To validate our findings we conducted an EVA and a peer group analysis

- All methods applied indicate an undervaluation of the stock

Fundamental Valuation

We based our price target on a DCF model that indicates a fair value of EUR 34.20. In addition, as a validity check to our findings, we built an Economic Value Added model (FV: EUR 35.00) and conducted a peer group analysis (FV: EUR 33.85).

DCF valuation

Our DCF model assumptions can be summarised as follows:

DCF model indicates substantial upside of 60%

- Until 2021 we estimated average growth of 9.8% compared to the 10.9% over the last 10 years. Thereafter, we used a transitional period lowering the growth expectation to 2.0% for terminal value, acknowledging the decreasing visibility.

- EBIT margins increase to a peak of 15.6% in 2022 and fall back to 15.0% which we consider to be the long-term average level of profitability.

- A beta of 1.2 is applied, considering the high level of diversification and financial strength on one hand and a lack of visibility as a natural result of the buy-and-build strategy and due to technological risks on the other.

Our DCF analysis yields a fair value of EUR 34.20 per share.

DCF model

Figures in EUR m	Detailed forecast period			Transitional period										Term. Value
	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	
Sales	70.8	76.8	85.1	93.7	102.7	110.7	117.9	124.4	130.0	134.5	138.6	142.0	144.9	
Sales change	*16.7 %*	*8.5 %*	*10.8 %*	*10.1 %*	*9.6 %*	*7.8 %*	*6.5 %*	*5.5 %*	*4.5 %*	*3.5 %*	*3.0 %*	*2.5 %*	*2.0 %*	*2.0 %*
EBIT	10.2	11.3	13.1	14.5	16.0	17.2	18.0	18.8	19.5	20.0	21.2	22.7	23.2	
EBIT-margin	*14.4 %*	*14.7 %*	*15.3 %*	*15.5 %*	*15.6 %*	*15.5 %*	*15.3 %*	*15.1 %*	*15.0 %*	*14.9 %*	*15.3 %*	*16.0 %*	*16.0 %*	
Tax rate (EBT)	*32.2 %*	*30.8 %*	*28.9 %*	*28.6 %*	*29.1 %*	*29.5 %*	*30.0 %*	*30.0 %*	*30.0 %*	*30.0 %*	*30.0 %*	*30.0 %*	*30.0 %*	
NOPAT	6.9	7.8	9.3	10.4	11.4	12.1	12.6	13.1	13.6	14.0	14.8	15.9	16.2	
Depreciation	2.0	2.8	2.9	3.0	3.1	3.2	3.3	3.4	3.4	3.4	2.2	1.6	1.7	
in % of Sales	*2.9 %*	*3.7 %*	*3.4 %*	*3.2 %*	*3.0 %*	*2.9 %*	*2.8 %*	*2.7 %*	*2.6 %*	*2.5 %*	*1.6 %*	*1.1 %*	*1.2 %*	
Changes in provisions	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Change in Liquidity from														
- Working Capital	1.6	0.3	1.0	1.5	1.5	1.3	1.3	1.1	1.0	0.8	0.7	0.6	0.5	
- Capex	1.6	0.8	0.8	0.9	1.1	1.2	1.4	1.5	1.6	1.6	1.7	1.7	1.7	
Capex in % of Sales	*2.2 %*	*1.0 %*	*1.0 %*	*1.0 %*	*1.1 %*	*1.1 %*	*1.2 %*	*1.2 %*	*1.2 %*	*1.2 %*	*1.2 %*	*1.2 %*	*1.2 %*	
Other	19.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Free Cash Flow (WACC Model)	-13.6	9.5	10.4	10.9	11.8	12.8	13.3	13.9	14.5	15.0	14.7	15.2	15.7	15
PV of FCF	-13.4	8.6	8.6	8.4	8.3	8.3	7.9	7.7	7.4	7.0	6.3	6.0	5.8	84
share of PVs	2.39 %			45.39 %										52.22 %

Model parameter

Derivation of WACC:

		Derivation of Beta:	
Debt ratio	15.00 %	Financial Strength	1.20
Cost of debt (after tax)	4.2 %	Liquidity (share)	1.00
Market return	8.00 %	Cyclicality	1.10
Risk free rate	1.50 %	Transparency	1.40
		Others	1.30
WACC	**8.54 %**	**Beta**	**1.20**

Valuation (m)

Present values 2030e	77
Terminal Value	84
Financial liabilities	4
Pension liabilities	0
Hybrid capital	0
Minority interest	4
Market val. of investments	0
Liquidity	20
Equity Value	**173**

No. of shares (m)	5.1
Value per share (EUR)	**34.20**

Sensitivity Value per Share (EUR)

Terminal Growth

Beta	WACC	1.25 %	1.50 %	1.75 %	**2.00 %**	2.25 %	2.50 %	2.75 %
1.38	9.5 %	28.31	28.68	29.06	29.48	29.92	30.39	30.90
1.29	9.0 %	30.27	30.70	31.17	31.67	32.21	32.79	33.41
1.25	8.8 %	31.34	31.82	32.34	32.89	33.48	34.13	34.82
1.20	8.5 %	32.49	33.02	33.59	**34.20**	34.86	35.58	36.35
1.15	8.3 %	33.72	34.31	34.94	35.62	36.35	37.15	38.02
1.11	8.0 %	35.05	35.69	36.39	37.15	37.97	38.87	39.85
1.02	7.5 %	38.01	38.81	39.68	40.63	41.67	42.82	44.08

Delta EBIT-margin

Beta	WACC	-1.5 pp	-1.0 pp	-0.5 pp	**+0.0 pp**	+0.5 pp	+1.0 pp	+1.5 pp
1.38	9.5 %	26.45	27.46	28.47	29.48	30.49	31.49	32.50
1.29	9.0 %	28.42	29.50	30.59	31.67	32.75	33.84	34.92
1.25	8.8 %	29.51	30.64	31.76	32.89	34.01	35.14	36.26
1.20	8.5 %	30.69	31.86	33.03	**34.20**	35.37	36.54	37.71
1.15	8.3 %	31.96	33.18	34.40	35.62	36.84	38.05	39.27
1.11	8.0 %	33.34	34.61	35.88	37.15	38.42	39.69	40.96
1.02	7.5 %	36.47	37.86	39.25	40.63	42.02	43.41	44.80

▪ Spectral Engines minorities are valued at EUR 3.7m, consistent with our est. purchase price of EUR 12m for a 75% stake

▪ The cash outflow of EUR 19.4m for the acquisition of LayTec, Spectral Engines and Avantes is found in the "Other" line

▪ In the course of 2028 goodwill will be completely amortized, leading to increase in EBIT in 2028 and 2029

Economic Value Added

To validate our DCF analysis and quantify the value of the exceptionally high ROCE potential, we conducted an EVA analysis. Our main assumptions are as follows:

EVA model confirms DCF analysis

- Goodwill amortisation derived for the acquisition of LayTec (2017) and Spectral Engines (2018) reduces capital employed by EUR 2.3m.

- This outweighs the maintenance capex of between 1.0% and 1.2% of sales as well as the increase in working capital of based on a long-term average working capital ratio of 17.5%.

- Capital employed decreases until 2027 and is increased thereafter by capex and working capital

- Assumptions regarding profitability, beta and WACC are consistent with our DCF model

Our EVA analysis yields a fair value of EUR 35.00 per share.

Economic Value Add

	History		Detailed planning						Transition period						Term. value
	2016	2017	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e
Capital Employed	8.4	15.4	26.8	25.0	24.0	23.4	22.10	22.3	21.6	20.9	20.1	19.1	19.3	20.0	20.5
EBIT	6.8	9.1	10.2	11.3	13.1	14.5	16.0	17.2	18.0	18.8	19.5	20.0	21.2	22.7	23.2
Tax	1.7	2.9	3.1	3.3	3.6	4.2	4.7	5.1	5.4	5.6	5.8	6.0	6.4	6.8	6.10
NOPAT	5.1	6.2	7.0	7.9	9.4	10.4	11.4	12.1	12.6	13.1	13.6	14.0	14.8	15.9	16.2
ROCE (NOPAT)	60.6%	40.6%	26.2%	31.7%	39.3%	44.0%	49.4%	54.3%	58.3%	62.9%	67.10%	73.4%	76.10%	79.4%	79.1%
WACC	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%	8.5%
Cost of Capital	0.7	13	2.3	2.1	2.0	1.10	1.10	1.9	1.8	1.8	1.7	1.6	1.6	1.7	1.8
EVA	4.4	4.9	4.7	5.8	7.4	8.4	9.4	10.2	10.8	11.4	11.9	12.4	13.2	14.2	14.5
Present value			4.7	5.3	6.3	6.5	6.8	6.8	6.6	6.4	6.2	5.9	5.8	5.8	82.9

Model parameters					Valuation (Mio.)	
Derivation of WACC:			Derivation of Beta:			
Debt ratio	10.0%		Financial Strength	1.00	Adj capital employed 2017	15.4
Borrowing costs	6.0%		Liquidity	1.00	Sum of present value EVA	156.0
Market return	8.0%		Cyclicality	1.10	Financial assets	0.7
Risk-free return	1.5%		Transparency	1.40	Net cash/(debt)	5.3
Risk premium	6.5%		Others	1.30	**Equity value**	177.4
Equity ratio	9.3%				Number of shares	5.1
WACC	8.5%		**Beta**	1.20	**Value per share (EUR)**	35.00

Relative Valuation

Peer Group Analysis

Nynomic Group does not have direct peers with a comparable business model and product range. Our peer group analysis draws on companies active in the field of optical metrology that are targeting similar end markets and are thus subject to the same market drivers.

Blend of EV/EBIT and P/E multiples validate our DCF-based PT

All multiples show considerable upside for the Nynomic share. As profitability and capital requirements vary widely within the peer group, we focus on the EV/EBIT (peer mean 2018-2020e 18.3x) indicating an upside of 85% and (peer mean 2018-2019e 23.0x) indicating an upside of 38%. On average these multiples indicate a fair value of EUR 33.85 per share.

Adjustment for HGB-specific effects yields even greater upside

Nynomic accounting under HGB regulation allows for the amortisation of goodwill. This has a decreasing effect on EBIT of some EUR 2m compared to IFRS accounting, which applies to most peer companies. Adjusted for this effect, the average fair value indicated would stand at EUR 39.74 per share.

Basler AG

Basler is a German company, developing, designing and producing high quality industrial cameras. As the world market leader in vision technology, its cameras are components of products worldwide. With 545 FTEs the company generates sales of EUR 150.2m with an EBIT margin of 20.7% in 2017.

ISRA Vision AG

Headquartered in Darmstadt, Germany, the company provides software for intelligent machine vision systems on the areas of robot vision, surface vision and quality inspection. For 2016/2017 with 679 FTEs, sales reached EUR 142.9m and the EBIT margin 19.6%.

STRATEC Biomedical AG

Stratec is a German-based technology specialist for lab automation solutions. It manufactures analysers for clinical diagnostic and biotechnology, specialised in the field of in-vitro diagnostics. With 1086 employees it generated sales of EUR 209.8m with an adjusted EBIT margin of 19.6% in 2017.

KLA-Tencor Corporation

Headquartered in the United States, KLA-Tencor engages in the supply of process control and yield-management solutions for the semiconductor and related nano-electronics industries. During 2017/18 the company had 5,990 FTEs generating sales of USD 4,04bn with an EBIT margin of 39.6%.

Hexagon AB Class B

The Swedish company develops and produces technology solutions for geospatial and industrial enterprises. Industrial enterprise solutions conclude measurement and quality inspection for automotive, aerospace and medical applications. Hexagon group had 17,543 FTEs in 2017, sales of SEK 33,443m and an EBIT margin of 24.1%.

Nanometrics Incorporated

The U.S.-based company produces high-performance process control metrology and inspection systems primarily used in the semiconductor industry. Revenues for 2017 were USD 258.6m with an EBIT margin of 16.6% generated by 592 employees.

Rudolph Technologies, Inc.

Also U.S.-based the company designs, develops and manufactures defect inspection, metrology and lithography for the semiconductor industry. In 2017, sales reached USD 255.1m with an EBIT margin of 17.5% and 592 FTEs.

Nynomic

Peergroup - Key Figures

Company	LC	Price in LC	MC in LC m	EV in LC m	EPS 18e	EPS 19e	EPS 20e	Sales 18e	Sales 19e	Sales 20e	EBITDA 18e	EBITDA 19e	EBITDA 20e	EBIT 18e	EBIT 19e	EBIT 20e
Basler AG	EUR	170.20	549.2	531.8	5.78	6.42	7.39	160.0	183.8	222.6	36.6	41.9	47.7	27.0	29.6	33.5
Rudolph Technologies, Inc.	USD	25.65	818.3	648.6	1.82	1.93	2.64	289.6	317.2	350.8	69.5	76.3	n.a.	62.7	74.6	98.2
ISRA VISION AG	EUR	48.15	1,054.8	1,052.2	1.03	1.23	1.41	158.7	177.4	199.3	48.5	56.3	63.6	32.3	39.6	45.7
STRATEC Biomedical AG	EUR	67.60	808.2	851.0	2.27	2.62	2.94	212.7	235.1	257.4	42.1	48.3	53.5	25.0	33.0	37.5
KLA-Tencor Corporation	USD	104.18	16,265.3	15,752.7	8.00	9.22	9.70	4,036.7	4,445.0	4,615.0	1,617.0	1,818.9	1,933.5	1,554.8	1,751.7	1,836.5
Hexagon AB Class B	SEK	527.00	189,953.5	211,297.3	21.15	23.48	25.71	39,084.0	41,707.8	43,754.4	12,468.3	13,696.2	14,661.8	9,676.5	10,744.0	11,534.2
Nanometrics Incorporated	USD	40.07	967.2	830.7	2.30	2.50	n.a.	321.7	340.3	n.a.	77.4	85.1	n.a.	69.6	77.0	n.a.
Nynomic AG	**EUR**	**21.40**	**108.5**	**112.3**	**1.14**	**1.25**	**1.51**	**70.8**	**76.8**	**85.1**	**12.2**	**14.1**	**16.0**	**10.2**	**11.3**	**13.1**

Peergroup - Valuation Multiples

Company	LC	Price in LC	MC in LC m	EV in LC m	P / E 18e	P / E 19e	P / E 20e	EV / Sales 18e	EV / Sales 19e	EV / Sales 20e	EV / EBITDA 18e	EV / EBITDA 19e	EV / EBITDA 20e	EV / EBIT 18e	EV / EBIT 19e	EV / EBIT 20e
System peers																
Basler AG	EUR	170.20	549.2	531.8	29.4 x	26.5 x	23.0 x	3.3 x	2.9 x	2.4 x	14.5 x	12.7 x	11.1 x	19.7 x	18.0 x	15.9 x
Rudolph Technologies, Inc.	USD	25.65	818.3	648.6	14.1 x	13.3 x	9.7 x	2.2 x	2.0 x	1.8 x	9.3 x	8.5 x	n.a.	10.3 x	8.7 x	6.6 x
ISRA VISION AG	EUR	48.15	1,054.8	1,052.2	46.7 x	39.1 x	34.1 x	6.6 x	5.9 x	5.3 x	21.7 x	18.7 x	16.5 x	32.6 x	26.6 x	23.0 x
STRATEC Biomedical AG	EUR	67.60	808.2	851.0	29.7 x	25.8 x	23.0 x	4.0 x	3.6 x	3.3 x	20.2 x	17.6 x	15.9 x	34.0 x	25.8 x	22.7 x
KLA-Tencor Corporation	USD	104.18	16,265.3	15,752.7	13.0 x	11.3 x	10.7 x	3.9 x	3.5 x	3.4 x	9.7 x	8.7 x	8.1 x	10.1 x	9.0 x	8.6 x
Hexagon AB Class B	SEK	527.00	189,953.5	211,297.3	24.9 x	22.4 x	20.5 x	5.4 x	5.1 x	4.8 x	16.9 x	15.4 x	14.4 x	21.8 x	19.7 x	18.3 x
Nanometrics Incorporated	USD	40.07	967.2	830.7	17.5 x	16.1 x	n.a.	2.6 x	2.4 x	n.a.	10.7 x	9.8 x	n.a.	11.9 x	10.8 x	n.a.
Average					25.1x	22.1x	20.2x	4.0 x	3.6 x	3.5 x	14.7 x	13.0 x	13.2 x	20.1 x	16.9 x	15.8 x
Median					24.9 x	22.4 x	21.7 x	3.9 x	3.5 x	3.4 x	14.5 x	12.7 x	14.4 x	19.7 x	18.0 x	17.1 x
Nynomic AG	**EUR**	**21.40**	**108.5**	**112.3**	**18.8 x**	**17.1 x**	**14.2 x**	**1.6 x**	**1.5 x**	**1.3 x**	**9.2 x**	**8.0 x**	**7.0 x**	**11.0 x**	**10.0 x**	**8.6 x**
Valuation difference to Average					34%	29%	42%	153%	150%	166%	60%	64%	88%	82%	70%	84%
Fair value per share based on Average					28.57	27.60	30.48	55.28	54.51	58.19	34.72	35.52	40.89	39.57	36.81	40.08

Sources: Warburg Research, FactSet

Company

Nynomic, founded in 1995 in Wedel, Germany, develops and manufactures photonic measurement technology for applications in medical /bio-technology, industry (e.g. semiconductors, infrastructure, food and beverage), environmental technology and agriculture. Using a buy-and-build strategy, the company is continuously broadening its product portfolio to enter new end-markets. To achieve more scalable production, the customer focus is on large orders with a long product lifecycle favoured by OEMs. In 2017, it generated sales of EUR 60.7m with an EBIT margin of 15%. It employs 350 full-time equivalents.

Financial history

Nynomic showed a solid average growth rate of 17.5% until 2010. Besides dynamic organic development, this was driven by the acquisition of Avantes in 2008 (Avantes sales 2007 EUR 3.9m). Focussing on higher-scale serial production for OEM and industrial customers, Nynomic's revenues reached a new all-time high of EUR 40.2m (+24.4%) in 2011. In 2012, however, sales dropped by 6.2% to EUR 37.7m. This was mainly attributable to a decrease in order intake from industrial and rail customers. EBIT in 2012 was EUR -3.1m (2011: EUR 4.6m) based on the lower sales volume and special depreciation on inventories (EUR -2m). Furthermore, provisions were made for restructuring (EUR -0.7m) and improvement in internal processes in 2013.

Development of sales, gross profit and EBIT
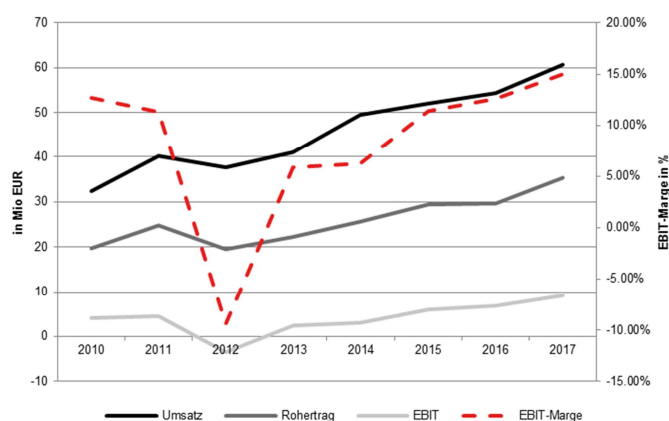
Source: Warburg Research

Besides reorganising the processes, Nynomic replaced the CEO in 2013. Even though sales recovered in 2013 (EUR 41.0m, +8.7% yoy) and 2014 (EUR 49.5m, +20.8% yoy) the new management was unable to fulfil its ambitious full year targets. As a consequence, Nynomic appointed a new CEO, Maik Müller, and CFO, Fabian Peters, in 2015. The new management adopted a more conservative financial market communication strategy. Growth continued at a CARG 14-17 of 7.0% and the EBIT margin improved to from 6.1% to 15%. In addition, the company outperformed its full-year targets for all 3 years and had to raise the FY guidance.

Regional split / markets

For Nynomic the two main markets are Germany with 43.5% of sales in 2017 and North America with 41.2%. The remaining 15.3% were contributed by other European countries (9.9%), Asia (5.1%) other regions (0.3%). Historically, the home market Germany was continuously responsible for nearly half of group sales, while revenues from North America accelerated over the years to nearly the same size.

Group sales by region
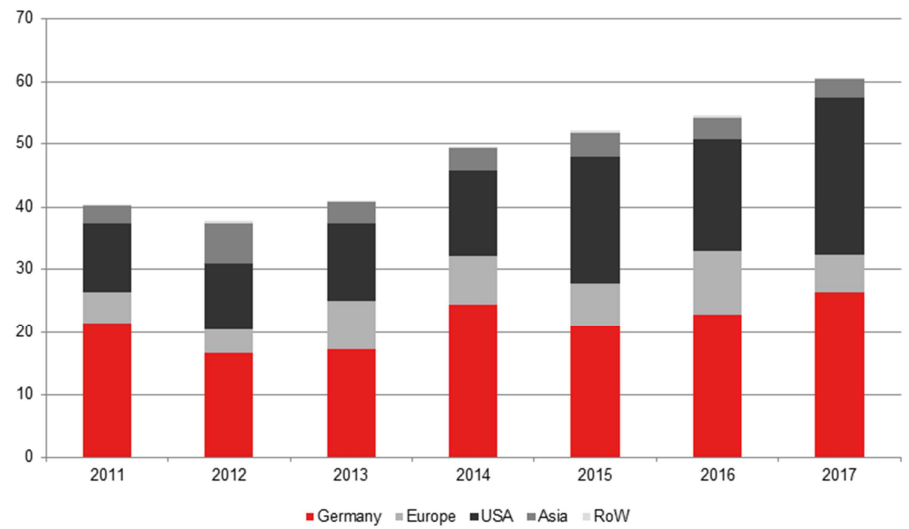
Source: Warburg Research

Nynomic's branches and distribution network also reflect the regional sales split. While production sites are mainly located in Central Europe (Germany, Netherlands), tec5 as well as Avantes operate subsidiaries in America and Asia, providing sales support and engineering services to local customers. In addition, a broad network of distribution partners ensures worldwide product availability and market access.

Branches and distributors
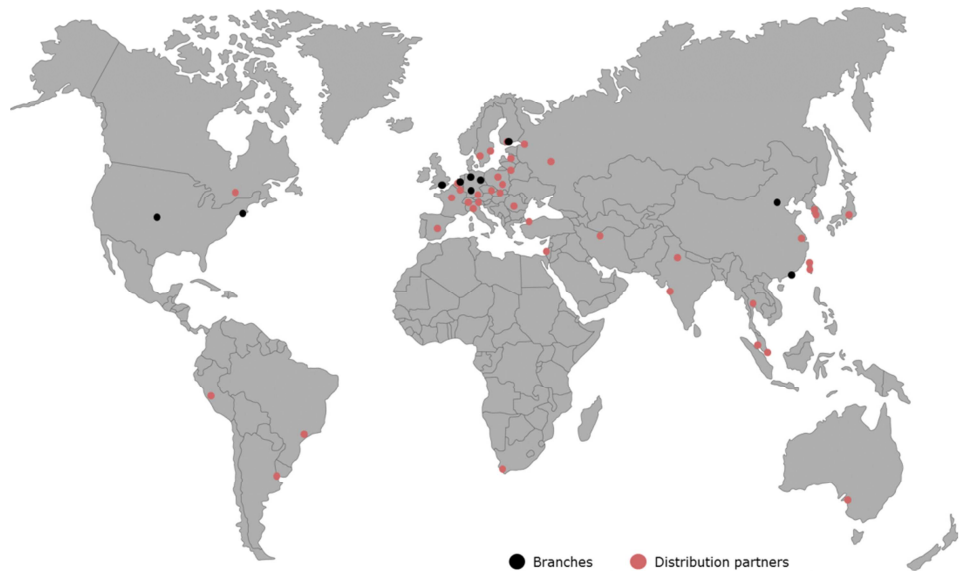
Source: Warburg Research

Company structure

Nynomic pursues a buy-and-build strategy to increase the breadth of its value chain and to expand its product portfolio. With its growing number of subsidiaries, Nynomic decided to transfer the operational business into the m-u-t GmbH and became a financial and investment holding in 2014.

Nynomic company structure
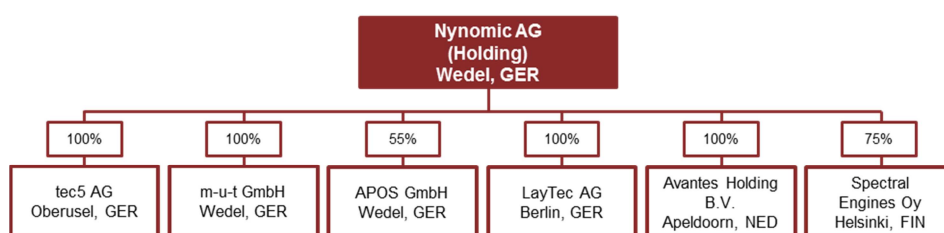
Source: Warburg Research

m-u-t GmbH

Founded in 1995 in Wedel Germany, m-u-t GmbH now conducts the operative business of the original m-u-t AG. Historically, it delivers customised solutions based on specific technical conditions. The product range includes **spectroscopy, sensor technology, laboratory automation, fire detection and medical technology**.

tec5 AG

The tec5 AG develops and manufactures components, embedded systems and specific system solutions based on **UV-VIS-NIR** and **Raman spectroscopy**. The products are used by industrial customers as well as OEMs. Via subsidiaries in China and the US, it expanded its customer base worldwide and accessed fast-growing markets. In 2007, Nynomic bought a majority stake of 51%. It increased its stake to 95% in 2011 and acquired the residual 5% in 2016.

Avantes Holding B.V.

Avantes develops customer-defined spectrometer configurations. The product portfolio includes **fiber optic spectroscopy** and **spetrometers**. The OEM-focused business has a worldwide sales network and can meet customers' needs on a local basis. Nynomic bought a 51% stake in 2008 und extended its share in several steps to 100% in 2017.

APOS GmbH

Apos GmbH offers **spectroscopy-based measurement systems for the woodworking industry**. It combines expertise in spectroscopy with distinctive application knowledge in terms of material and thermal use of wood. Combined with its software solutions, it delivers ready-to-operate systems to customers. Since 2016, Nynomic Group has held a majority stake of 55%.

LayTec AG

LayTec is the world market leader for **in-situ metrology** used in Laser and LED production. The product portfolio includes wafer inspection for the production of OLEDs and VCSEL laser as well as for organic thin-films in PV and display industries. In 2017 Nynomic acquired a majority stake of 95.6% and increased its share to 100% in March 2018.

Spectral Engines Oy

In May 2018 Nynomic acquired 75% of Spectral Engines with the option to buy the remaining 25% stake in 2023. The young Finnish company **develops and produces smart sensor technologies** for the B2C market. Its sensors can be used in pocket-size devices and allows customer applications to scan and analyse in real-time. Additionally it provides cloud-based software for data reconciliation. The products can be used in smart industry, smart farming, smart homes and mobile devices.

Management

Maik Müller

Maik Müller has been a board member of Nynomic since Mai 2015. He is responsible for technology, operations and R&D in the holding structure. He was appointed chairman of tec5 AG in October 2010 and since then he has been fully responsible for the operative management of tec5 Group worldwide. After completing a degree in communications engineering, he joined the recently-founded tec5 AG in 1995. For 10 years, he was significantly involved in the development of the company in several positions. From 2005 to 2008 he was director of R&D for CyBio AG. Before being appointed chairman of tec5 AG, he worked as high-tech consultant for Zühlke Engineering.

Fabian Peters

Fabian Peters has been working for the Nynomic since October 2013 and became member of the management board in January 2015. He is responsible for the operative m-u-t GmbH as sole director. As a board member of Nynomic AG he is responsible for finance, controlling, organisation and investor relations. After Fabian Peters finished his university degree in finance he gained a wide range of managerial experience in the insurance sector. Before he joined m-u-t GmbH he was working for Versatel AG in finance and after that he served as CFO within the L&O Group for several years.

History

Founded in 1995 as an engineering office, providing specialised photonic solutions for R&D or prototypes, Nynomic developed into an international OEM and industry supplier for spectroscopy-based solutions. The expansion of its product range and knowledge was gained by internal development and its buy-and-build strategy.

- 1995 Founding of m-u-t GmbH in Wedel, Germany as engineering office.

- 1999 First serial production order.

- 2000 Company moves into its own building of 2,800sqm.

- 2001 ISO 9001 and VDE certification.

- 2005 Building extension of 2,400sqm.

- 2007 Conversion to m-u-t AG and IPO. Acquisition of majority stake in tec5 AG Oberursel, Germany (industrial and OEM spectroscopy solutions).

- 2008 Acquisition of majority stake and integration of Avantes Holding B.V., Netherlands, a manufacturer of fiber optic spectroscopy instruments.

- 2010 Capital increase of 725k shares.

- 2011 Increase of stake in tec5 AG.

- 2012 New divisions: Green Tech, Clean Tech and Life Science.

- 2013 Increase of stake in Avantes Holding B.V.

- 2014 Founding of financial and investment holding and outsourcing of operational business into m-u-t GmbH.

- 2015 Disposal of direct customer business with laboratory automation.

- 2016 Acquisition of minority stake and integration of APOS GmbH Wedel, Germany (Spectroscopy specialist for woodworking industry). Full acquisition of tec5 AG.

- 2017 Acquisition of minority stake and integration of LayTec AG Berlin, Germany (metrology-based integrated systems). Full acquisition of Avantes Holdgin B.V.

- 2018 Capital increase of 285k shares. Acquisition of a 75%-stake in Spectral Engines Oy Helsinki, Finland. Change of name to Nynomic AG.

Nynomic

Valuation

	2014	2015	2016	2017	2018e	2019e	2020e
Price / Book	6.3 x	3.1 x	3.3 x	4.9 x	6.7 x	4.9 x	3.7 x
Book value per share ex intangibles	-0.01	0.69	1.17	0.57	-0.93	0.69	2.58
EV / Sales	0.5 x	0.3 x	0.5 x	0.8 x	1.6 x	1.3 x	1.1 x
EV / EBITDA	5.0 x	2.7 x	3.4 x	4.9 x	9.2 x	7.2 x	5.8 x
EV / EBIT	7.5 x	3.1 x	3.9 x	5.4 x	11.0 x	9.0 x	7.1 x
EV / EBIT adj.*	7.0 x	2.9 x	3.8 x	5.3 x	9.7 x	7.6 x	6.1 x
P / FCF	25.4 x	5.5 x	5.9 x	7.8 x	24.3 x	11.8 x	10.8 x
P / E	18.8 x	6.6 x	8.7 x	14.1 x	18.8 x	17.1 x	14.2 x
P / E adj.*	16.1 x	6.3 x	8.3 x	13.6 x	16.0 x	14.0 x	12.0 x
Dividend Yield	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
FCF Potential Yield (on market EV)	13.6 %	27.8 %	20.6 %	13.4 %	6.7 %	9.9 %	12.4 %

*Adjustments made for: -

Nynomic

Consolidated profit & loss

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Sales	**49.5**	**52.1**	**54.5**	**60.7**	**70.8**	**76.8**	**85.1**
Change Sales yoy	20.8 %	5.1 %	4.6 %	11.4 %	16.7 %	8.5 %	10.8 %
Increase / decrease in inventory	1.6	-0.4	0.3	1.7	1.2	0.7	0.6
Own work capitalised	0.0	0.1	0.0	0.0	0.0	0.0	0.0
Total Sales	**51.2**	**51.8**	**54.8**	**62.4**	**72.0**	**77.5**	**85.7**
Material expenses	25.5	22.4	25.2	27.1	30.2	31.5	34.8
Gross profit	**25.7**	**29.3**	**29.6**	**35.3**	**41.9**	**46.0**	**50.9**
Gross profit margin	*51.9 %*	*56.3 %*	*54.3 %*	*58.2 %*	*59.1 %*	*60.0 %*	*59.8 %*
Personnel expenses	14.3	15.7	16.2	17.8	22.9	24.3	26.2
Other operating income	1.0	1.2	1.3	1.3	2.3	2.4	2.3
Other operating expenses	7.8	8.0	6.8	8.6	9.1	10.1	11.1
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	**4.6**	**6.8**	**7.9**	**10.2**	**12.2**	**14.1**	**16.0**
Margin	*9.3 %*	*13.2 %*	*14.5 %*	*16.8 %*	*17.2 %*	*18.4 %*	*18.7 %*
Depreciation of fixed assets	1.3	0.5	0.5	0.5	0.5	0.5	0.6
EBITA	**3.3**	**6.3**	**7.4**	**9.7**	**11.7**	**13.6**	**15.4**
Amortisation of intangible assets	0.3	0.4	0.6	0.5	1.6	2.3	2.3
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	**3.0**	**5.9**	**6.8**	**9.1**	**10.2**	**11.3**	**13.1**
Margin	*6.1 %*	*11.4 %*	*12.6 %*	*15.0 %*	*14.4 %*	*14.7 %*	*15.3 %*
EBIT adj.	**3.2**	**6.2**	**7.1**	**9.4**	**11.6**	**13.3**	**15.1**
Interest income	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Interest expenses	0.5	0.4	0.3	0.2	0.4	0.5	0.5
Other financial income (loss)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	**2.3**	**6.4**	**6.5**	**9.0**	**9.8**	**10.8**	**12.6**
Margin	*4.7 %*	*12.3 %*	*12.0 %*	*14.7 %*	*13.8 %*	*14.0 %*	*14.8 %*
Total taxes	0.5	1.7	1.7	2.9	3.1	3.3	3.6
Net income from continuing operations	**1.8**	**4.7**	**4.8**	**6.1**	**6.6**	**7.4**	**8.9**
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income before minorities	**1.8**	**4.7**	**4.8**	**6.1**	**6.6**	**7.4**	**8.9**
Minority interest	0.7	1.6	1.1	1.4	0.9	1.1	1.3
Net income	**1.1**	**3.0**	**3.7**	**4.6**	**5.7**	**6.3**	**7.6**
Margin	*2.3 %*	*5.8 %*	*6.7 %*	*7.6 %*	*8.1 %*	*8.3 %*	*9.0 %*
Number of shares, average	4.8	4.8	4.8	4.8	5.0	5.1	5.1
EPS	**0.23**	**0.64**	**0.76**	**0.97**	**1.14**	**1.25**	**1.51**
EPS adj.	0.27	0.67	0.80	1.00	1.34	1.53	1.79

*Adjustments made for:

Guidance: Sales EUR 66.0-68.0m, EBIT EUR 10.0m

Financial Ratios

	2014	2015	2016	2017	2018e	2019e	2020e
Total Operating Costs / Sales	94.0 %	86.3 %	86.0 %	86.0 %	84.5 %	82.6 %	82.0 %
Operating Leverage	1.2 x	18.8 x	3.3 x	2.9 x	0.7 x	1.2 x	1.5 x
EBITDA / Interest expenses	8.8 x	16.4 x	24.1 x	50.0 x	30.7 x	29.0 x	32.9 x
Tax rate (EBT)	23.0 %	26.9 %	26.5 %	32.2 %	32.2 %	30.8 %	28.9 %
Dividend Payout Ratio	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Sales per Employee	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Sales, EBITDA
in EUR m

Source: Warburg Research
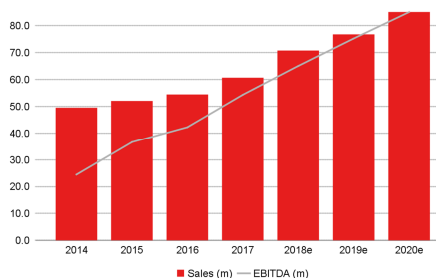
Operating Performance
in %
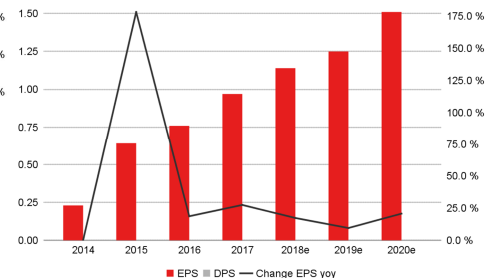
Source: Warburg Research

Performance per Share

Source: Warburg Research

Nynomic

Consolidated balance sheet

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Assets							
Goodwill and other intangible assets	3.3	3.2	3.9	10.7	20.9	18.7	16.5
thereof other intangible assets	0.7	0.5	1.4	1.2	1.6	1.6	1.6
thereof Goodwill	2.6	2.7	2.4	9.3	19.2	17.0	14.8
Property, plant and equipment	1.5	1.4	1.5	2.0	2.2	2.4	2.5
Financial assets	0.0	0.0	0.0	0.7	0.0	0.0	0.0
Other long-term assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fixed assets	**4.9**	**4.6**	**5.4**	**13.4**	**23.2**	**21.1**	**19.1**
Inventories	7.4	6.4	6.7	8.4	9.7	10.4	10.9
Accounts receivable	4.2	6.0	4.6	6.2	6.8	6.9	7.7
Liquid assets	6.4	8.3	10.6	19.6	22.0	29.6	38.1
Other short-term assets	1.3	0.9	1.4	1.6	1.6	1.6	1.6
Current assets	**19.3**	**21.6**	**23.3**	**35.8**	**40.1**	**48.5**	**58.3**
Total Assets	**24.1**	**26.2**	**28.7**	**49.1**	**63.2**	**69.7**	**77.3**
Liabilities and shareholders' equity							
Subscribed capital	4.8	4.8	4.8	4.8	5.1	5.1	5.1
Capital reserve	0.6	0.6	0.0	0.0	4.3	4.3	4.3
Retained earnings	0.0	0.0	4.2	4.0	6.6	12.6	20.0
Other equity components	-2.1	1.1	0.5	4.6	0.3	0.3	0.3
Shareholders' equity	3.3	6.5	9.5	13.4	16.2	22.3	29.6
Minority interest	3.5	4.4	4.1	3.3	3.5	3.5	3.5
Total equity	**6.8**	**10.9**	**13.6**	**16.7**	**19.8**	**25.8**	**33.1**
Provisions	2.8	5.0	5.9	23.3	15.7	15.7	15.7
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	8.5	6.2	5.3	3.7	22.1	22.1	22.1
thereof short-term financial liabilities	3.2	1.5	5.3	3.7	2.3	2.3	2.3
Accounts payable	2.2	1.3	1.8	2.4	2.7	3.2	3.5
Other liabilities	3.8	2.8	2.0	3.0	3.0	3.0	3.0
Liabilities	**17.4**	**15.3**	**15.1**	**32.4**	**43.4**	**43.9**	**44.2**
Total liabilities and shareholders' equity	**24.1**	**26.2**	**28.7**	**49.1**	**63.2**	**69.7**	**77.3**

Financial Ratios

	2014	2015	2016	2017	2018e	2019e	2020e
Efficiency of Capital Employment							
Operating Assets Turnover	4.6 x	4.2 x	4.9 x	4.3 x	4.4 x	4.7 x	4.8 x
Capital Employed Turnover	5.6 x	5.9 x	6.5 x	67.8 x	3.6 x	4.2 x	5.0 x
ROA	23.1 %	66.3 %	67.3 %	34.7 %	24.7 %	30.0 %	40.1 %
Return on Capital							
ROCE (NOPAT)	27.0 %	49.0 %	58.2 %	n.a.	66.6 %	40.9 %	52.5 %
ROE	43.4 %	62.4 %	45.7 %	40.4 %	38.7 %	33.0 %	29.5 %
Adj. ROE	50.0 %	66.1 %	48.0 %	41.9 %	45.3 %	40.2 %	34.9 %
Balance sheet quality							
Net Debt	2.1	-2.1	-5.2	-15.8	0.1	-7.6	-16.0
Net Financial Debt	2.1	-2.1	-5.2	-15.8	0.1	-7.6	-16.0
Net Gearing	31.0 %	-19.1 %	-38.1 %	-94.6 %	0.4 %	-29.3 %	-48.4 %
Net Fin. Debt / EBITDA	45.8 %	n.a.	n.a.	n.a.	0.7 %	n.a.	n.a.
Book Value / Share	0.7	1.4	2.0	2.8	3.2	4.4	5.8
Book value per share ex intangibles	0.0	0.7	1.2	0.6	-0.9	0.7	2.6

ROCE Development
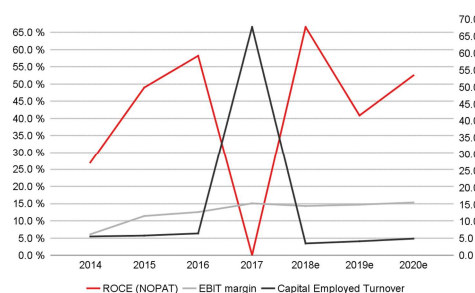
Source: Warburg Research

Net debt
in EUR m
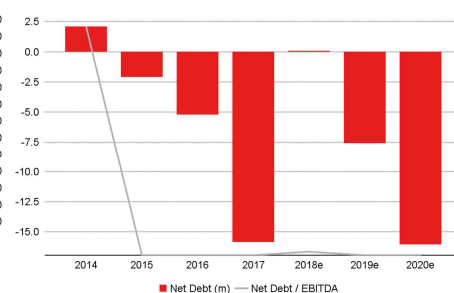
Source: Warburg Research

Book Value per Share
in EUR

Source: Warburg Research

Nynomic
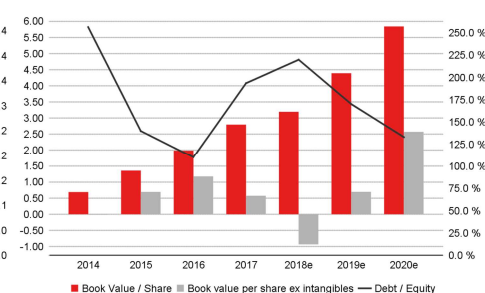
Consolidated cash flow statement

In EUR m	2014	2015	2016	2017	2018e	2019e	2020e
Net income	1.8	4.7	4.8	6.1	6.6	7.4	8.9
Depreciation of fixed assets	1.5	0.5	0.5	0.5	0.5	0.5	0.6
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.3	0.4	0.6	0.5	1.6	2.3	2.3
Increase/decrease in long-term provisions	-1.2	2.2	0.4	2.1	0.0	0.0	0.0
Other non-cash income and expenses	-0.5	-0.6	0.9	1.9	-1.1	0.0	0.0
Cash Flow before NWC change	**1.8**	**7.2**	**7.2**	**11.1**	**7.5**	**10.3**	**11.8**
Increase / decrease in inventory	-1.5	1.0	-0.4	-1.7	-1.3	-0.7	-0.5
Increase / decrease in accounts receivable	0.0	-1.9	1.4	-1.7	-0.6	-0.1	-0.8
Increase / decrease in accounts payable	1.2	-1.0	0.5	0.6	0.3	0.5	0.3
Increase / decrease in other working capital positions	0.0	-0.8	-2.6	0.6	0.0	0.0	0.0
Increase / decrease in working capital (total)	-0.3	-2.6	-1.0	-2.1	-1.6	-0.3	-1.0
Net cash provided by operating activities [1]	**1.6**	**4.6**	**6.1**	**9.0**	**6.0**	**10.0**	**10.8**
Investments in intangible assets	-0.2	-0.4	-0.1	-0.1	-0.9	-0.1	-0.1
Investments in property, plant and equipment	-0.6	-0.5	-0.6	-0.6	-0.7	-0.7	-0.7
Payments for acquisitions	0.0	0.0	-1.1	0.0	-19.4	0.0	0.0
Financial investments	0.0	0.0	0.0	0.0	-0.6	0.0	0.0
Income from asset disposals	0.0	1.4	0.0	0.0	0.0	0.0	0.0
Net cash provided by investing activities [2]	**-0.7**	**0.5**	**-1.8**	**-0.6**	**-20.4**	**-0.8**	**-0.8**
Change in financial liabilities	-2.2	-3.1	-0.8	-1.5	18.3	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	-1.0	-1.5	-1.5	-1.5	-1.5	-1.5
Net cash provided by financing activities [3]	**-2.2**	**-4.0**	**-2.3**	**-3.1**	**16.8**	**-1.5**	**-1.5**
Change in liquid funds [1]+[2]+[3]	**-1.4**	**1.1**	**2.0**	**5.3**	**2.4**	**7.7**	**8.5**
Effects of exchange-rate changes on cash	0.5	0.4	0.6	-0.7	0.0	0.0	0.0
Cash and cash equivalent at end of period	6.3	7.9	10.4	19.5	22.0	29.6	38.1

Financial Ratios

	2014	2015	2016	2017	2018e	2019e	2020e
Cash Flow							
FCF	0.8	3.7	5.4	8.3	4.4	9.2	10.0
Free Cash Flow / Sales	1.7 %	7.0 %	10.0 %	13.7 %	6.3 %	12.0 %	11.8 %
Free Cash Flow Potential	3.1	5.0	5.5	6.6	7.5	10.0	11.5
Free Cash Flow / Net Profit	72.8 %	120.0 %	148.3 %	179.7 %	77.3 %	144.8 %	131.1 %
Interest Received / Avg. Cash	0.2 %	0.4 %	0.3 %	0.2 %	0.0 %	0.0 %	0.0 %
Interest Paid / Avg. Debt	5.4 %	5.7 %	5.7 %	4.5 %	3.1 %	2.2 %	2.2 %
Management of Funds							
Investment ratio	1.5 %	1.8 %	1.3 %	1.1 %	2.2 %	1.0 %	1.0 %
Maint. Capex / Sales	1.5 %	1.8 %	1.3 %	1.1 %	2.2 %	1.0 %	1.0 %
Capex / Dep	47.9 %	103.9 %	66.4 %	64.1 %	76.8 %	28.0 %	28.3 %
Avg. Working Capital / Sales	17.6 %	19.6 %	18.9 %	17.9 %	18.4 %	18.2 %	17.2 %
Trade Debtors / Trade Creditors	187.1 %	471.3 %	255.4 %	256.4 %	251.9 %	215.6 %	220.0 %
Inventory Turnover	3.5 x	3.5 x	3.7 x	3.2 x	3.1 x	3.0 x	3.2 x
Receivables collection period (days)	31	42	31	37	35	33	33
Payables payment period (days)	32	21	26	33	33	37	37
Cash conversion cycle (Days)	82	95	80	93	96	94	88

CAPEX and Cash Flow
in EUR m

Maintenance Capex (m) — Depreciation of fixed assets (m) — Cash Flow before NWC change (m)

Source: Warburg Research
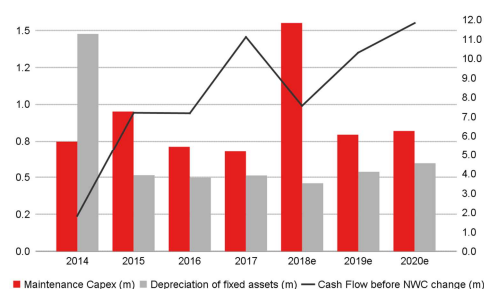
Free Cash Flow Generation

FCF (m) — Free Cash Flow / Sales

Source: Warburg Research

Working Capital

Working Capital (m) — Avg. Working Capital / Sales

Source: Warburg Research

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INVESTMENT RECOMMENDATION

Investment recommendation: expected direction of the share price development of the financial instrument up to the given price target in the opinion of the analyst who covers this financial instrument.

-B-	**Buy:**	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	**Hold:**	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	**Sell:**	The price of the analysed financial instrument is expected to fall over the next 12 months.
"-"	**Rating suspended:**	The available information currently does not permit an evaluation of the company.

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING

Rating	Number of stocks	% of Universe
Buy	113	55
Hold	89	43
Sell	4	2
Rating suspended	0	0
Total	**206**	**100**

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING …

… taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	32	67
Hold	16	33
Sell	0	0
Rating suspended	0	0
Total	**48**	**100**

PRICE AND RATING HISTORY NYNOMIC AS OF 10.09.2018

Markings in the chart show rating changes by Warburg Research GmbH in the last 12 months. Every marking details the date and closing price on the day of the rating change.

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