

August 17th, 2017
Research Report

SMC Research
Small and Mid Cap Research



Mensch und Maschine Software SE

New record highs in the anniversary year

Rating: **Hold** (before: buy) | Price: **18,995 Euro** | Price target: **19.80 Euro**

Analyst: Dr. Adam Jakubowski
sc-consult GmbH, Alter Steinweg 46, 48143 Münster

Please take notice of the disclaimer at the end of the document!

Phone: +49 (0) 251-13476-93
Telefax: +49 (0) 251-13476-92
E-Mail: kontakt@sc-consult.com
Internet: www.sc-consult.com

Contents

Snapshot..... 3

Executive Summary 4

SWOT analysis..... 5

Profile..... 6

Market environment..... 10

Strategy 13

Figures..... 15

Equity Story 19

DCF valuation..... 21

Conclusion 23

Annex I: Balance sheet and P&L estimation 24

Annex II: Cash flows estimation and key figures 25

Disclaimer 26

Snapshot



Basic data

Based in:	Wessling
Sector:	CAD/CAM Software
Headcount:	786
Accounting:	IFRS
ISIN:	DE0006580806
Price:	18.995 Euro
Market segment:	Scale / m:access
Number of shares:	16.68 m
Market Cap:	316.9 m Euro
Enterprise Value:	347.0 m Euro
Free Float:	44.3 %
Price high/low (12 M):	20.195 / 11.685 Euro
Ø turnover (Xetra, 12 M):	147,500 Euro

Short profile

Mensch und Maschine was able to continue its success story in the first half of 2017 as well. Although trade business with Autodesk licenses declined as announced due to the conversion of the pricing model, the decline was more than compensated for by increases in other areas. Remarkably, the contribution came not only from the already very dynamic software business that showed for the first time an EBITDA margin of more than 25 percent together with a continuing high sales growth, but also from the VAR business itself, whose sales of services and own solutions had developed very positively and were able to counterbalance the trade business' weakness nearly completely. On this basis, M+M was able to report new record highs for gross and net profit in the first half-year, which had been originally expected to be weaker. According to the company, its own forecasts are now comfortably achievable, while we have modelled an outperforming of the targets. On this basis, we see the fair value at EUR 19.80 per share. Due to the sharp price increase, however, we change our rating to "hold".

FY ends: 31.12.	2014	2015	2016	2017e	2018e	2019e
Sales (m Euro)	140.0	160.4	167.1	168.7	187.3	205.1
EBIT (m Euro)	6.8	8.5	12.5	17.1	20.7	24.9
Net Profit	3.7	3.9	6.6	9.9	12.5	15.4
EpS	0.24	0.24	0.39	0.59	0.75	0.92
Dividend per share	0.20	0.25	0.35	0.50	0.60	0.70
Sales growth	11.3%	14.5%	4.2%	1.0%	11.0%	9.5%
Profit growth	42.1%	4.0%	70.4%	50.1%	26.5%	22.7%
PSR	2.26	1.98	1.90	1.88	1.69	1.55
PER	85.2	82.0	48.1	32.0	25.3	20.6
PCR	50.40	21.51	21.64	21.49	19.42	16.60
EV / EBIT	51.3	40.9	27.8	20.2	16.7	13.9
Dividend yield	1.1%	1.3%	1.8%	2.6%	3.2%	3.7%

Executive Summary

- **Highly profitable business with CAM software:** The wholly-owned subsidiary Open Mind that develops and sells technologically leading CAM software is the group's paragon of profitability. Although the globally acting company with a broad customer and installed base contributes less than a quarter to the group's sales, it provides considerably more than a half of the profits. As the largest part of the software segment, the company is crucially responsible for its high sales and margin growth in recent years. After a new leap in profits in the first half-year of 2017, the segment exceeded the mark of a 25-percent EBITDA margin for the first time on a half-yearly basis.
- **Autodesk partnership for more than 30 years:** M+M's origins lie, however, in the trade business with the CAD software of the American CAD pioneer Autodesk. Since the company's founding more than 30 years ago, Mensch und Maschine has established itself as a leading reselling partner of Autodesk and has – with a broad geographical presence and a large customer base – a strong position in the addressed market.
- **Conversion of distribution stage completed:** Starting in 2009, Mensch und Maschine has completed the transition from value added distribution to end-customer sales as value added reseller (VAR) and has considerably extended its own value creation owing to the enlarged range of services. Through this transition, M+M has become Autodesk's largest European VAR partner.
- **High margin potential in the VAR business:** The most important reason for the transition was the higher margin potential in the VAR business, estimated by M+M at more than 10 percent based on EBITDA. Despite the recent considerable progress in this direction, however, due to the ongoing set-up and expansion phase especially in the European countries outside the D/A/CH area, the actually achieved margin is – with about 4.8 percent – far below this estimate for the time being. Therefore, a successful further advance towards the target value would open up potential for an above-average profit growth.
- **First half-year better than expected:** The positive trend of the last few years has continued in the first half year, although the trade business was burdened by Autodesk's conversion of the licensing model (from license sale to rental software). Due to the high dynamic in other areas, M+M was able to more than balance the expected – and temporary – decline of the trade business and to report new record highs for both gross and net profit.
- **Forecasts raised:** Against this background, M+M has called its forecasts for 2017 “comfortably achievable“. We assume even that the current year's targets will be exceeded and expect a continuation of the success story in the subsequent years as well. The company's target, to increase earnings per share one and a half times by 2020, seems realistic and promises further potential for the share as well. Moreover, the share is also expected to benefit further from the shareholder-friendly dividend policy, leading us to expect considerably increased dividends in the next few years.

SWOT analysis

Strengths

- An established strong position in attractive target markets for decades
- Growing, highly profitable software segment with a worldwide market presence and a technological leadership
- Change of distribution stage in the Autodesk business successfully completed
- High continuity on management level and very low employee turnover
- Stable shareholder structure with management holding more than 50 percent of shares
- Solid balance sheet structure with a high equity ratio and moderate debt
- Growth dynamics above the industry average with even higher rise in profits in the last few quarters

Opportunities

- In the current ramp-up phase there is still considerable potential for margin growth in the VAR business; if the present trends continue, an above-average profit development should be possible
- The conversion of the pricing model could additionally fuel the growth in the trade business. There is a high potential for that in the reduction of the still widespread under-licensing on the customers' side
- After the strong first half-year, M+M could well be able to exceed this year's targets
- The foreseeable profit growth should provide enough space for constant and considerable dividend increases

Weaknesses

- Profit contribution of the VAR business is still small despite the already achieved progress
- VAR business is significantly influenced by Autodesk's product and price policies. Especially in the current year, a reduced sales dynamic could result, due to the conversion of Autodesk's pricing model
- The geographical expansion of the VAR business requires the expensive set up of further offices; in principle, the segment's potential for achieving economies of scale is limited
- Noticeable dependence on Germany and Europe
- In both segments, M+M is facing the challenge of recruiting and retaining suitable employees in a difficult labour market

Threats

- High personnel intensity in the VAR business causes a high capacity utilization risk in economically weaker phases
- The envisaged margin increase in the VAR business cannot be taken for granted and could well turn out to be more protracted than planned or even totally unsuccessful
- Should Autodesk fall behind in competition, it would perceptibly afflict the VAR segment
- Being a technology leader demands from Open Mind intense development activities and involves the risk of technological failures

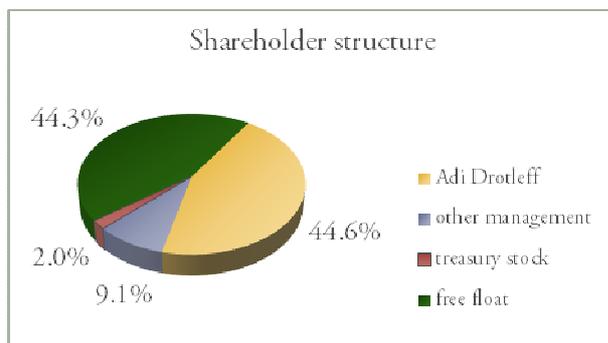
Profile

Leading market position

Mensch und Maschine Software SE (M+M), based in Wessling in Bavaria, was founded in 1984. Its origins lie in the trade with CAD (Computer Aided Design) software of the US-American manufacturer Autodesk. Meanwhile, the focus has broadened and the market has developed further, and M+M is now defining its field of activity as the market for CAD/CAM/PDM/BIM-solutions (Computer Aided Manufacturing, Product Data Management and Building Information Management), where it ranks among the leading providers in Europe.

20th anniversary of IPO

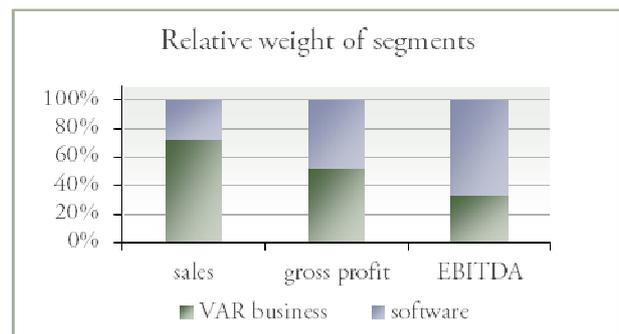
The by far biggest block of shares (44.6 percent) is still in the hands of founder Adi Drotleff, who has been both CEO and Chairman of the Board since the company's conversion to a "Societas Europaea" (SE). Another 9.1 percent are held by other members of the management and the free float amounts to 44.3 percent. The M+M share has been listed on the stock market since 1997 and has thus celebrated the 20th anniversary of its IPO this year. It is listed both in the m:access trading segment of Munich stock exchange and in the new Scale segment of Frankfurt stock exchange.



Source: company

Clear-cut holding structure

Within the group, Mensch und Maschine Software SE acts purely as a financial holding. Located below is the subsidiary Mensch und Maschine Management AG that performs central management and service tasks for the group. All operating business, however, is performed by another more than 40 direct and indirect subsidiaries with altogether 786 employees and more than 50 locations all over the world. A geographical focus is clearly on the German-speaking countries, where M+M is represented comprehensively with more than 40 locations. Ten further offices operate in other European countries. Moreover, the group has also offices in five Asian countries, the USA and in Brazil.



Source: company

Two business segments

Since 2012, the business model consists of two segments: the VAR business, i.e. the direct distribution of Autodesk software to end customers, on the one hand, and the development and distribution of own software on the other. In terms of sales, the business is dominated by the first segment, which generated EUR 120.8 m or more than 70 percent of the group's sales in 2016. In terms of gross profit, however, both segments are equally important, but the software segment still accounts for two thirds of the group EBITDA.

A paragon of profitability in the software segment

The different weight of segments in terms of individual key figures is a reflection of considerable differences in profitability. While the VAR business generated a gross margin of 38.7 percent and an EBITDA margin of 4.2 percent last year, in the software segment these figures are 96.8 and 22.9 percent respectively. They reflect the continuous and successful development of the three subsidiaries included in this segment – Open Mind, DATAflor and M+M Mechatronik –, all of which generate operating margins of more than 20 percent.

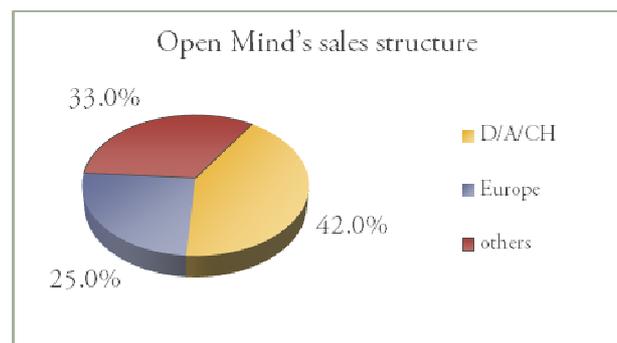
High-end CAM solution

The group's paragon of profitability and by far the biggest unit within the software segment is clearly the CAM specialist Open Mind, founded 1994 and fully owned by the M+M group since 2002. The company specializes in high quality software for computer-aided manufacturing (CAM); it has generated more than EUR 40 m or 85 percent of the segment's sales last year. The product, worth between EUR 15,000 and 100,000 per workstation, allows the customer to perform highly complex and extremely precise drilling and milling tasks (e.g. with 5-axis mills) in a fraction of the usually required time, thus increasing the productivity of the machines controlled by the software many times over. The software can be used with all common NC mills and lathes, is compatible with leading CAD products (including Autodesk and Solidworks), has a user-friendly interface and allows seamlessly continuous processes from designing to the manufacturing on the machine. In addition, Open Mind offers also its own CAD solution that is clearly aimed at the requirements of the CAM programming, in contrast to leading CAD programs that are primarily optimized for the needs of design engineers. M+M emphasizes especially its own, cutting-edge kernels as a unique selling point. They allow a very efficient mapping of highly complex mathematical and geometrical models, resulting in a shorter processing time in the programmed machines. To maintain this technological lead, Open Mind attaches a great importance to

software development: of the company's 270 employees, about 60 are software designers.

Worldwide customer base

Altogether, Open Mind has a worldwide base of more than 6,000 customers and over 20,000 installations. The customers hail from various industries using this kind of machine tools, such as prototype construction, tool and mould construction, aerospace industry, turbine and generator construction, mechanical and medical engineering and jewellery manufacturing. But also several Formula 1 race teams use the software to tune their engines or to aerodynamically optimize the carbon elements. Unlike the VAR business, Open Mind addresses as well markets outside of Europe and has offices in Japan, Singapore, Taiwan, China, India, Brazil and the USA. In the last year, the company generated sales of about EUR 13.5 m overseas.



Source: company

The opportunity of electromobility

Apart from Open Mind's CAM software, the software segment includes two other product lines: a solution for gardening and landscaping called DATAflor and ECSCAD, a software for the mapping of extensive electric circuit diagrams. M+M had originally developed this product as a supplement to the standard Autodesk program. It was then sold to the American company but licensed back in 2014. The software allows an efficient planning and managing of large electrical projects with thousands of individual sheets, such as can be found with railways, plant manufacturers or power suppliers. Unlike many conventional CAD products, the software is tailored ex-

actly to the mapping of the extremely complex circuit diagrams of such projects. However, as the market for this kind of software is mainly in German-speaking countries, Autodesk had offered to M+M to license it back; at the same time, M+M took over software development and the support for more than 1,000 customers. Since then, the company has further developed the product in the subsidiary M+M Mechatronik and has opened it up for applications outside the Autodesk world. Last year, the software generated sales of about EUR 1.5 m and the management thinks that it has excellent prospects, especially given the increasing importance of electromobility.

DATAflor leading in its niche

DATAflor, a software that helps landscape architects to plan green areas both graphically and financially, completes the software segment's product range. The software is priced – according to company statement – at about EUR 5,000 per workstation and generates sales of about EUR 5.5 m. It has already been in the market since 1982 and has a leading position in the addressed niche in the German-speaking area. Most recently, the application range was extended to cover earthworks and civil engineering as well.

VAR business still ramping up

While the software segment's success and high profitability are based on long established and proven products and customer relations, the VAR business is still in the ramp-up phase. It is true that this segment's core business – the distribution of the Autodesk software – is the original nucleus of the M+M group; however, until 2009, M+M concentrated on the wholesale distribution. Owing to narrow margin potentials and uncertain future prospects, this model was given up in favour of direct selling to end customers. The transition took place in two stages. In a first step, an extensive market coverage was achieved in 2009-2010 by converting the M+M locations from Distributor to VAR and by acquiring several former clients in Germany, Austria and Switzerland. The next step followed at the end of 2011, when the European distribution business was sold and the European subsidiaries were converted as well.

High service share

The transition of the business model has allowed M+M to extend the value chain and to unlock new income sources by collecting the retail markup and by offering services like installation, configuration, maintenance and training courses. The courses covering the new opportunities in data management offered by the new PDM and BIM software (Product Data Management and Building Information Management) have turned out to be especially dynamic and promising. About a third of the services' gross profit of the VAR business in the last year can be attributed to such training courses, while the other two thirds were generated with individual customers' projects. These projects, comprising up to several man-years, include as a rule the implementation and the customized adaptation and extension of the Autodesk software, the configuration of adequate data models and the migration of data sets. Altogether, the share of the own services and the own software components (additional or sector-specific modules for the standard Autodesk software) amounted last year to 55 percent of the segment's gross profit.

Strong market presence

This transformation allowed M+M to develop in just a few years from a leading European Autodesk distributor into the largest European Autodesk VAR, with around 450 employees in around 50 locations in Europe. Outside of Germany, Austria and Switzerland, however, the transition is still in progress, which is why the segment is still far below the management's long-term target EBITDA margin of 10 percent (in the first half-year, it was 4.8 percent).

Broad industry focus

While its size on the purchase side makes sure that M+M is nearly indispensable for Autodesk as a European partner, on the customer side the Bavarians pursue a directly opposed strategy – a very high diversification. This applies both with respect to industry structure and – even more – to the share of sales generated with more than 25,000 individual customers, of whom no one is responsible for more than 1

percent of the group's sales. And though the customer list is dominated by mechanical engineering, it is such a heterogeneous industry that the cycles of the individual subsectors usually offset each other. In addition, recently there has been a growing number of new customers from the AEC industry (including

Architectural, Engineering, Construction and Facilities Management), where M+M is profiting from the strong demand for BIM (Building Information Management) solutions.

Market environment

CAD world highly dynamic

In the beginning of the 80s, the CAD pioneer and M+M partner Autodesk was one of the creators of the CAD market which has since then developed into a global billion-dollar market. But it is a rapidly changing sector as well. In the early years, 2D products for the use in architecture and building industry were most important, while in the meantime, the CAD world is dominated by 3D applications that have become indispensable in other sectors as well, e.g. mechanical and plant engineering, automation industry and consumer goods industry. Also, the software's performance scope was greatly improved, leading to increasing overlapping with other areas like ERP software. An important trend in the sector are, for instance, software solutions allowing a completely software-aided optimization of the whole product life cycle (PLM), from planning, through construction, calculation and production, to controlling, distribution and servicing. A similar functional enhancement for the building industry offers BIM (Building Information Management): it allows efficient planning, designing, constructing and also managing of buildings, infrastructure facilities and utilities in only one system. Meanwhile, the CAD world puts a growing emphasis on consistent data models and solutions for the collaboration of several participants. And of course, there is a strong tendency to cloud-based and mobile applications.

Robust growth

Given the overlapping with other software segments, a precise demarcation of the CAD market is not easy. Mensch und Maschine estimates the overall European market for CAD/CAM/PLM/BIM at about EUR 3 billion. Globally, Jon Peddie Research (JPR) estimates the market (in its narrower CAD definition) to be USD 7.8 billion, with its biggest share being attributable to America and the highest growth rates being recorded in Asia. Altogether, the analysts expect for the next years a constantly dynamic market growth, estimated at up to 7 percent p.a. According-

ly, P&S Market Research expect a global market volume of USD 11.1 billion for 2023.

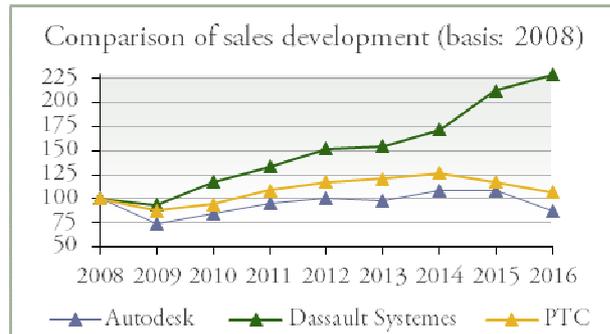
Intense competition

However, the market is considered as highly competitive. According to JPR's assessment, the narrower market is still led by Autodesk (measured by installed base), followed by Dassault Systemes, Siemens PLM Software, PTC and Bentley Systems. Autodesk is particularly strong in the mid-price segment, while the high-end segment (characterized in particular by extensive PLM features) is dominated by Dassault Systemes. Another leading player in this area is Siemens PLM. The Munich based company is active in the market since the acquisition of the Texas business UGS in 2007 and claims market leadership in the PLM sector. Finally, at the lower end of the market, there are several free solutions that are partly launched by the big companies themselves as a door opener to new customer groups.

Autodesk falling behind

In terms of sales, Autodesk has by now lost the market leadership to Dassault Systemes, and the gap is still growing. One of the reasons is the conversion of the business model towards cloud software and subscription that has been under way for about four years now and that involves lower license revenue in the transitional period. After the sales of one-off licenses were discontinued last year, Autodesk's sales fell by 19 percent to USD 2 billion, while the French global leader increased by 7.6 percent to EUR 3.1 billion. In this way, a trend that was visible ever since the financial crisis has continued. While Autodesk's sales are below the level of 2008, the French more than doubled theirs. They have benefited here from their strong position in both the 3D and the PLM market as well as from their offensive acquisition course. Thus, the takeover of the former PLM segment from IBM has fueled growth rates in 2010 and

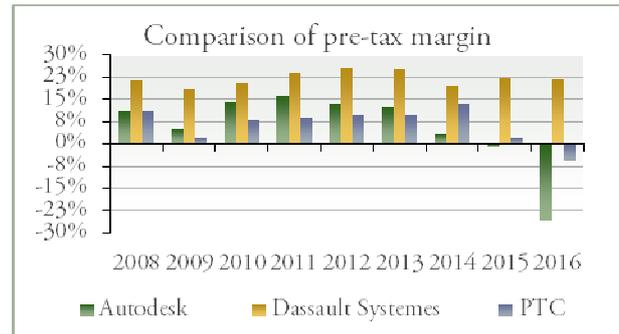
2011, while further acquisitions worth EUR 213 m and 952 m respectively followed in 2013 and 2014. The French have continued their acquisition course in 2016 as well and have acquired three further companies, the by far biggest of which was Computer Simulation Technology AG, a specialist for electromagnetic simulations, with a purchase price of EUR 295 m.



Source: Autodesk, Dassault Systemes and PTC

Large differences in profitability

The weak sales development has also had an impact on Autodesk's profits, which slipped into the red for the first time in 2015. Last year, the slump in sales caused a considerable increase in deficit to a negative pre-tax-margin of -25.8 percent. PTC is in a similar situation. Just as Autodesk, the Americans are currently shifting their licensing model to rental software and, as a result, have generated declining sales and a negative income (EBT margin of -5.9 percent) in 2016. Dassault Systemes, in contrast, was able to keep the high margin levels. Although the current figure of 21.6 percent fell below that from the previous year (22.6 percent), it is still clearly above the 20-percent mark and miles ahead of competitors. Autodesk's readjustment of the business model is an important reason for the growth and profit decline, because the high-margin license revenues of the new model do not accrue all at once, but spread over the contract duration. Moreover, the development of new products, which is making itself felt in rising installation figures, has initially also a negative impact on earnings. Thus, the ratio of R&D costs rose over the last two years. After 29 percent just two years ago, it was at 38 percent in the last financial year (partly due to the decline in sales).



Source: Autodesk, Dassault Systemes and PTC

Autodesk with strong market position

In spite of this relatively weak growth and profits, Autodesk is still holding a strong market position. The Americans have by far the widest range of products and are thus able to address the entire width of the market, while the competition is mainly focusing on industrial customers and among them especially on individual sectors like automotive or aerospace industry. Autodesk is still the undisputed leader in the architecture/engineering/construction area (AEC) which constitutes approximately one third of the market. Another advantage is the fact that Autodesk's products, due to their widespread use, represent a kind of industry standard that many users have come to identify with CAD. Thus, the high availability of users able to work with the Autodesk software is an important argument pro Autodesk from the customer's point of view.

High expectations of the rental model

Whether Autodesk will be again more successful in adequately converting the strong market position into increasing sales and higher profitability, remains to be seen after the conclusion of the transitional phase. In the first quarter of the current year, Autodesk sales declined by 5 percent, but the revenues from software subscriptions were more than doubled. After the completion of the transition, Autodesk calculates with a growth of 20 percent and with improved margins. An important factor here is the reduction of the still widespread under-licensing on the customers' side, which will be far easier to identify in the rental model.

BIM as an important market driver

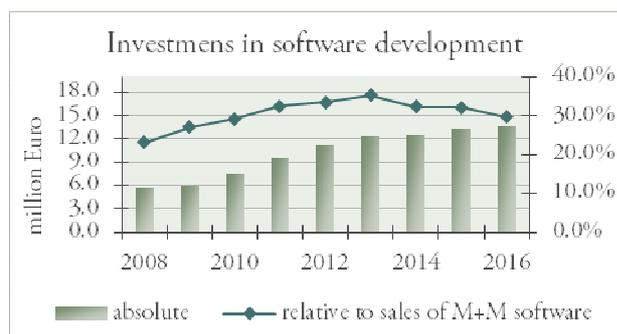
Given its strong position in the AEC field (architecture/engineering/construction, Autodesk could well benefit from the trend to extend the CAD software by a complete management of all data pertaining to the building. The market shows currently a keen interest in such BIM solutions. The data management incorporates a time component as well, and some market observers speak here of a transition towards 5D models, which include – apart from the three

spatial dimensions – mass and a time axis. While the fourth component, mass, is already included in most BIM products, it is only the high-end segment that uses the time dimension as yet. A further spreading of these functions could well be – according to market experts – just as much a driving factor as the transition from 2D to 3D had been at the time.

Strategy

Technology leader in CAM business

From the group's point of view, the crucial strategic thrust, which was vital for the successful development in the recent years, is the technology leadership of the subsidiary Open Mind in the CAM business it addresses. The increases in productivity, which Open Mind offers its customers, are in some instances very considerable. They are the most powerful sales argument and they create the scope for the positioning in the high-price segment and, consequently, for the sustained attainment of very high margins. To maintain and expand this positioning, high-quality innovations are crucial; therefore, high investments in the maintenance and development of own software (capitalized only to a very small extent) are one of the most important parts of M+M's strategy. Based on the segment's sales, the development expenses reached an average of nearly 33 percent in the last five years. The efforts intensified by another 2.8 percent in the last year as well, although the even stronger sales growth caused a relative – and margin-increasing – decline, as a result of which the ratio of development expenses to segment's sales (29.6 percent) slid under the level of 30 percent for the first time since 2010.



Source: M+M

Diversification with two segments

The positioning with two segments that have, although thematically related, developed very differently offers M+M a positive diversification effect. Without this effect the transition of the business model in

the Autodesk trade, for one thing, would have been much more difficult. Even if, according to the company, the synergies between the two segments are limited, the two-pillar strategy has tangible benefits for M+M. Firstly, the CAM business has an important diversification effect in terms of content (outside the Autodesk world) as well as geographically (strong non-European business); secondly, it increases notably the profitability of the group as a whole.

Increasing market share

Due to the partnership with Autodesk, the development of the CAD pioneer is a crucial determinant for M+M. Autodesk's strategical decisions, like a realignment of the business towards rental software, have as much impact on the Bavarians' development as the quality and the degree of innovation in the Americans' range of products. But within this setting, M+M has enough regulating variables at its disposal to be able to influence its own sales and profit growth. Thus, the main growth source is an even more intensive penetration of already covered markets and an increase of the own share in Autodesk's sales (at the expense of other VARs). The development over the past few years shows that the Bavarians are definitely successful here: Since 2012, M+M was able to increase its VAR sales by nearly 42 percent to EUR 120.8 m, while the Autodesk sales in the geographical segment EMEA (Europe, Middle East and Africa) sank by 7.8 percent to USD 800.4 m. Over the last two years, the gap widened even further. While M+M rose in the VAR business by 17.2 percent in 2015 and by 1.6 percent in 2016, Autodesk fell in Europe by 4.6 and 14.4 percent respectively. M+M's pure trade business with Autodesk licenses developed more steadily as well. The company was able to limit last year's gross profit decline in this area to about 8 percent.

Realizing economies of scale

By now, M+M has achieved a size that offers a major competitive edge against other VARs and perceives itself as Europe's leading Autodesk VAR. Since it allows a centralization of some important functions like marketing or hotline support, M+M is able to realize substantial cost benefits. At the same time, a consistent label and the comprehensive presence facilitate the approach and support of larger customers.

Extending the value chain

One important aspect in M+M's strategy to increase its share in the Autodesk business is the conversion of the business model from distribution – strong in terms of sales but comparatively weak with regard to profit – to VAR business, which was initiated 2009. Consequently, M+M has considerably extended its value chain. With the additional services like training courses, support, maintenance, implementation and individual adjustment and with the collecting of the retail markup, the management now sees a perspective potential for an EBITDA margin of up to 10 percent – about three times as much as in the distribution business.

Reducing dependence on Autodesk

By setting up and expanding the VAR business, M+M was also able to reduce its dependence on Au-

odesk. The share of Autodesk licenses in the group's gross profit fell since to below 20 percent (in the first half-year of 2017 it was even only 17.7 percent). Moreover, M+M's VAR offices are increasingly perceived as CAD specialists independent of a certain vendor, and are employed for extensive projects that use third-party software as well.

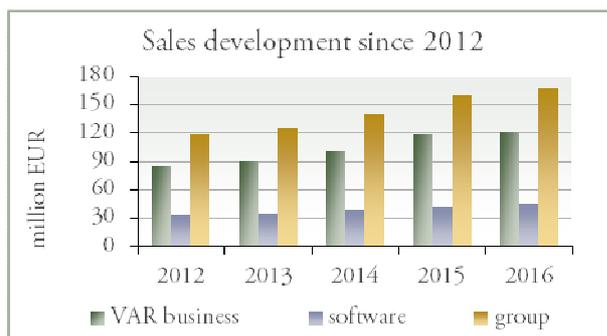
Own software and solutions as unique selling point

The Autodesk based software products DATAflor and ECSCAD, with which M+M offers custom-fit solutions for a certain sector or for certain demands (highly complex circuit diagrams), are important competitive advantages against other Autodesk partners. In particular ECSCAD serves as a door opener especially into the technologically dominated German Mittelstand. In addition to that, M+M is constantly developing (in projects) new modules and extensions for the Autodesk standard software that meet customer- or industry-specific requirements. These solutions subsequently demonstrate the degree of expertise to the addressed industries, facilitate sales and marketing, increase the productivity in the projects and makes them more predictable.

Figures

Sustained growth

For many years, Mensch und Maschine's development was characterized by a steady growth that in the last decade was only suspended in 2009 and 2012 due to the transition of the business model from wholesale distribution with its strong sales to end customer sales (VAR). In both current segments, however, M+M was able to record a continuous growth since 2009: in total, software sales rose from EUR 21.8 m to 46.2 m, and VAR sales increased (partly due to acquisitions) from EUR 35.3 m to 120.8 m. Since 2012, the group sales have shown a considerable and steady growth as well, totaling more than 40 percent.



Source: company

One-off effect as a temporary brake

Last year, however, the dynamic slowed somewhat down due to an external effect in the VAR segment that caused its sales growth to decrease to 1.6 percent. The reason for this was the trade business with Autodesk licenses that was burdened especially in the fourth quarter by the transition of the licensing model initiated by the Americans. The conversion of the pricing model from license sale to rental software has reduced the short-term sales impact of the new business, but will be more than compensated for by the recurring revenues in subsequent years.

Gross profit reaches record levels

As the trade business is the one with the lowest margins, the dampening effect of the licensing model's transition on the gross profit growth was only moderate. In the VAR business, this key indicator increased by 3.9 percent and across the group even by 8.2 percent to a new record high of EUR 91.4 m. In this way, the biggest advantage of the new business model (VAR instead of wholesale distribution), the extension of the value chain, has again paid off. Unlike sales, gross profit declined only slightly in the follow-up of the transition and had surpassed 2011's record high (EUR 77.0 m) in 2014 already, despite the still considerably lower sales. The gross margin, whose figures ranged usually below 30 percent until 2008, reached 54.7 percent last year and could even crack the 60-percent mark this year.

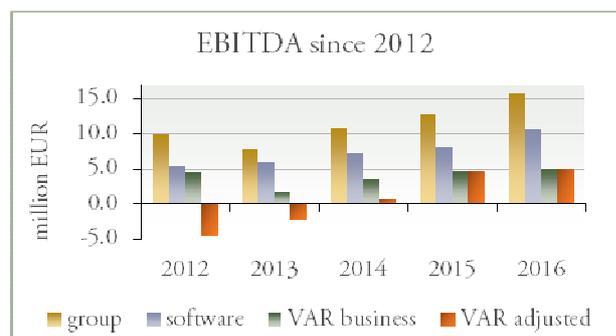


Source: company

Increasing profitability

Over the last years, the EBITDA development has been highly dynamic as well, even if only at the second glance. While the operating result of the software segment continued to grow stronger than the segment's sales, in the VAR segment the profit situation was rather more erratic due to considerable one-off effects. There were, on the one hand, the ramp-up losses of the new business model. On the other, there was also the high profit from the sale of the European Autodesk distribution business in the autumn

of 2011 that M+M used to bolster up the results in the VAR business until 2014. However, as the effect became continually smaller, it obscured the achieved operating progress. Adjusted by this income, by contrast, the VAR business improved its EBITDA continually from EUR -4.5 m in 2012 to EUR 5.1 m last year.



Source: company

Decreasing amortizations

A further consequence of the business model's transition were higher amortizations of purchase price components (customer bases, contracts etc.) of the 20 acquisitions that helped achieve the transition mainly in German-speaking countries. In the last few years, these amortizations have burdened the VAR EBIT with about EUR 2.0 m p.a. Only when they had largely expired last year has the VAR EBIT been able to increase from EUR 1.3 m to EUR 3.1 m. In comparison, the software segment has improved its EBIT continuously in step with the EBITDA and has achieved for the first time a margin before taxes and interest of more than 20 percent in 2016. The group EBIT, still generated largely in the software segment, improved consequently last year by nearly a half to EUR 12.5 m, the highest figure in company history.

Net profit and dividend increase considerably

Although last year's currency development had a currency effect impaired by EUR 0.4 m on the P&L account, M+M was able to convert the strong EBIT increase into a net profit improved by 70 percent to EUR 6.6 m. On that basis, M+M raised the dividend

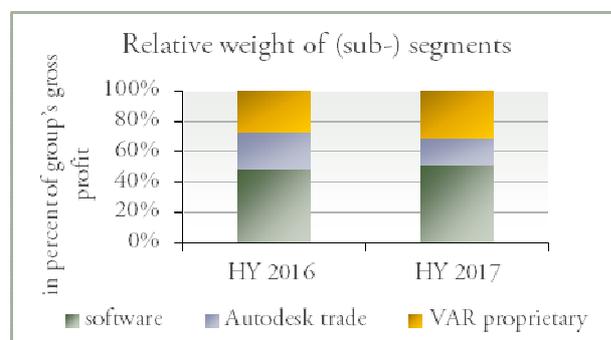
(already raised by a quarter to 25 cents in 2015, after it had remained stable at 20 cents for four years) by another impressive 40 percent to 35 cents per share.

Business figures	FY 2015	FY 2016	Change
Sales	160.34	167.07	+4.2%
<i>VAR business</i>	118.94	120.83	+1.6%
<i>Software</i>	41.44	46.24	+11.6%
Gross profit	84.52	91.43	+8.2%
<i>VAR business</i>	44.94	46.70	+3.9%
<i>Software</i>	39.58	44.74	+13.0%
Gross margin	52.7%	54.7%	
EBITDA	12.81	15.76	+23.0%
<i>VAR business</i>	4.60	5.09	+10.9%
<i>Software</i>	8.22	10.67	+29.8%
EBITDA margin	8.0%	9.4%	
EBIT	8.47	12.49	+47.4%
<i>VAR business</i>	1.33	3.07	+129.8%
<i>Software</i>	7.14	9.42	+32.0%
EBIT margin	5.3%	7.5%	
Pre-tax result	7.53	11.12	+47.7%
Pre-tax margin	4.7%	6.7%	
Net profit	3.87	6.59	+70.4%
Net margin	2.4%	3.9%	

Half-year better than expected

The dampening effect of Autodesk's pricing model conversion was still perceptible in the first half-year. M+M had expected that the revenues from the trade business with Autodesk licenses, which had benefited hugely last year from the temporary boom through the final sale of one-off licenses, would decline, and had consequently warned of a weaker year in terms of sales. This decline did indeed materialize but was considerably smaller than had been feared. Due to the dynamic demand for services and M+M's own solutions, the decrease in sales in the VAR business was limited to -9.8 percent in the first half-year, and if the second quarter is considered separately, only -0.5 percent. As, in addition, the software segment has grown strongly as usual, the effect was only moderate on group level as well at -4.8 percent. In

Q2, the group's sales grew even slightly by 1.8 percent.



Source: company

Business figures	HY 2016	HY 2017	Change
Sales	87.83	83.60	-4.8%
<i>VAR business</i>	64.72	58.37	-9.8%
<i>Software</i>	23.11	25.22	+9.1%
Gross profit	46.61	48.20	+3.4%
<i>VAR business</i>	24.16	23.67	-2.0%
<i>Software</i>	22.46	24.54	+9.3%
Gross margin	53.1%	57.7%	
EBITDA	8.33	9.13	+9.5%
<i>VAR business</i>	2.64	2.77	+5.2%
<i>Software</i>	5.70	6.35	+11.5%
EBITDA margin	9.5%	10.9%	
EBIT	6.70	7.75	+15.7%
<i>VAR business</i>	1.61	1.99	+23.4%
<i>Software</i>	5.09	5.77	+13.3%
EBIT margin	7.6%	9.3%	
Pre-tax result	5.91	7.13	+20.6%
Pre-tax margin	6.7%	8.5%	
Net profit	3.48	4.37	+25.7%
Net margin	4.0%	5.2%	

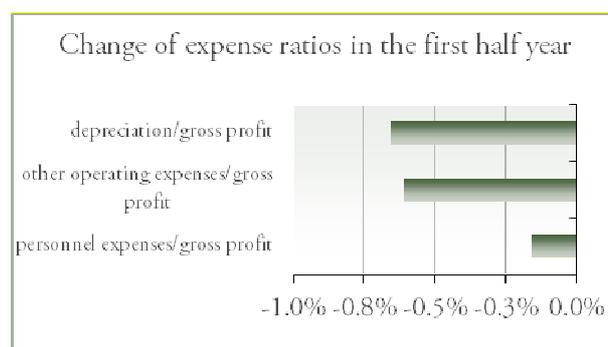
Gross profit still increasing

As the sales mix has thus shifted further towards higher-margin revenues, the group's gross profit increased despite the sales slump by 3.4 percent to EUR 48.2 m, with a slight decrease by 2 percent in the VAR business and an increase by 9.3 percent in

the software segment. In the second quarter, however, the contribution of both segments was positive, with 5.2 and 5.8 percent respectively. Within the VAR business, services and own solutions rose by 17 percent to EUR 15.1 m, while the share of Autodesk trade fell by 23 percent to EUR 8.6 m. Thus, the share of the former core business Autodesk trade in the group's gross profit fell to 17.8 percent. Gross margin increased consequently year-on-year by 4.6 percentage points to 57.7 percent, in the second quarter it has even – at 60.9 percent – for the first time exceeded the mark of 60 percent.

Cost discipline is paying off

M+M was again able to convert this slight gross profit growth in an even stronger profit growth. This is partly due to a sustained cost discipline, reflected in the disproportionately low increase in personnel expenses (in relation to gross profit). The VAR business showed year-on-year even a slight reduction of both headcount and personnel expenses. As the other operating expenses had remained at nearly the same levels, the EBITDA increased by 9.5 percent to EUR 9.1 m, thus improving the EBITDA margin by 1.4 percentage points to 10.9 percent. Both segments had an equal share in this improvement. While the VAR business generated an operating margin of 4.8 percent (after 4.1 percent), the half-year figure in the software segment was with 25.2 percent for the first time above the 25-percent mark.



Source: company

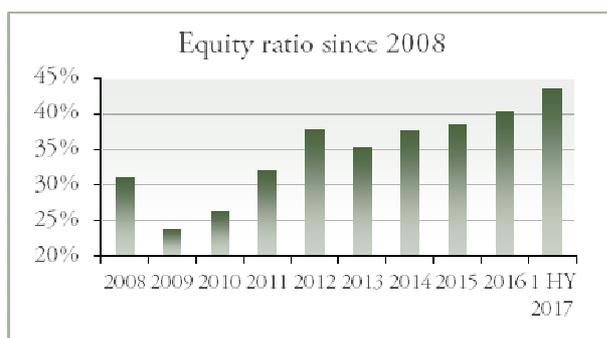
Profit increases by a quarter

As, in addition, depreciation declined by 16 percent due to the expiration of the PPA of the acquisitions

in 2009 and 2010, the EBIT increased even more. Especially in the VAR business, where this depreciation effect has an impact, EBIT improved by 23.4 percent to nearly EUR 2 m, while the software segment showed an increase by 13.3 percent to EUR 5.8 m. Across the group, this resulted in an EBIT increase by 15.7 percent to EUR 7.8 m, equaling an EBIT margin of 9.3 percent (after 7.6 percent). Combined with an improved financial result and a lower expected tax ratio, M+M was able to conclude the supposedly difficult first half-year with an increase in profits by 25.7 percent to EUR 4.4 m.

Cash flows at a very high level

Due to a stronger increase of the working capital, the operating cash flows growth stayed at 3.3 percent behind the profit growth. In absolute figures, however, it reached still an excellent level with EUR 7.7 m, with more than 9 percent of sales being recognized as cash surplus. As the investments remained on last year's moderate level (EUR 1.7 m, +2.6 percent), free cash flows increased slightly by 3.5 percent to EUR 6.0 m. M+M used these inflows primarily for dividend payment amounting to EUR 5.7 m, and liquidity increased thus overall by EUR 0.9 m to EUR 7.3 m.



Source: company

Equity ratio considerably increased

The combination of half-year profit, dividend payment, the issue of new shares (as a stock dividend that had been offered as an alternative to cash dividend) and a partial sale of shares from treasury stock led altogether to an equity increase by 4.3 percent to EUR 41.8 m. Together with the reduced balance sheet total, this caused a further considerable improvement of the equity ratio from 40.4 percent at the turn of the year to now 43.6 percent. Conversely, the already comfortable debt position has improved further as well: the relation of net financial debt to last year's EBITDA was only 1.2 as at the end of June, even taking into account the secured property loan.

Forecasts confirmed

Against the background of the surprisingly strong first half-year, M+M confirmed its forecast for the current year and said that an EBITDA target range of EUR 17.5 m to 18.5 m would be comfortably achievable. The company points here to the expected growth acceleration in the VAR business, when it will have overcome the dampening effects of the transition. M+M expects a net profit in the range of 52 to 57 cents per share (previous year: 40 cents), based on which the dividend is to be raised again by 10 to 15 cents to up to 50 cents. The forecast for the subsequent years was confirmed as well. On the level of gross profit, M+M expects a growth of about 10 percent p.a. (for 2018, however, the calculation is rather 11 to 12 percent), the EBITDA is expected to rise by EUR 3 to 4 m every year and the net profit by 13 to 20 cents per share. Accordingly, the dividend is to increase by 10 to 15 cents per year. By 2020, M+M intends to improve the profit to about 1 Euro per share, with the increase being generated primarily in the VAR business, whose EBITDA contribution is until then expected to catch up with that of the software segment.

Equity Story

Strong market position

M+M has a strong market position in the addressed markets. In the CAM field, the company with its subsidiary Open Mind is one of the pioneers of the 5-axis milling process, holds a technologically leading position and has a broad and globally spread customer and installed base. In the CAD software market, moreover, M+M has been active for more than three decades and is Europe's largest Value Added Reseller for the software of the American CAD pioneer Autodesk. The Bavarians have a comprehensive presence in the D/A/CH area as well as offices in several other European countries and a broad customer and installed base.

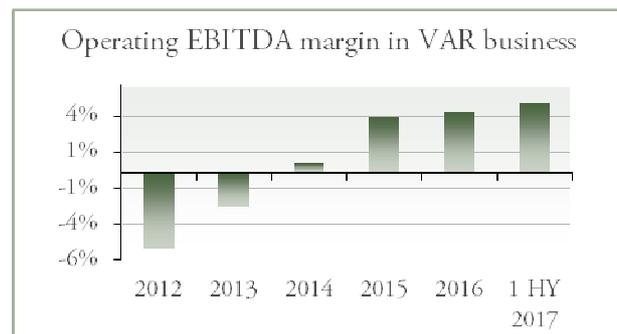
Distinctive continuity

M+M is characterized by an impressive continuity. This is true for the addressed business areas and strategy, as well as for the persons involved. Although the company can look back on more than 30 years of history, it is still led by its founder Mr. Adi Drotleff, who is at the same time the largest single shareholder with 43.3 percent. But the personnel also shows a strong bond with the company, according to M+M statements there is only a low staff turnover, and the second and third management levels are composed of staff members most of whom have been with the team for more than 15 years.

Change of the business model on schedule

The only one big change over the last years was the conversion of distribution level from wholesale distribution to end-customer sales as a value added reseller (VAR) initiated in 2009. M+M was able to realize this large-scale change of the business model involving 20 acquisitions at home and abroad without any significant frictions and, up until now, mostly according to the long-standing schedule. We regard this success as evidence for the expertise of the whole management team and infer from this that the second phase of the transformation – to reach target

profitability with the new segment – will be similarly successful. The following figure shows M+M's impressive development in this respect, which has fortunately continued in the first half of 2017 as well.



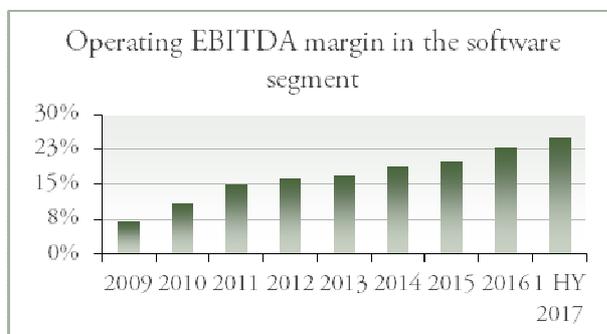
Source: company

High potential for profit increase

This expected gradual increase in profitability in the VAR business leads to considerable profit fantasies on the part of M+M. Thus, in the first half year the segment's EBITDA margin was at 4.8 percent, while the management considers it feasible to reach about 10 percent in the long term, and it was exactly this margin potential that was used as a reason for the transition to VAR business. M+M has already shown the possibility of this improvement in the last four financial years, where the segment's purely operating margin (without the income from the sale of the distribution business) increased from -5.3 to 4.3 percent. This trend continued in the first half year as well. According to M+M, important drivers for this development are growth-related economies of scale, a growing number of prefabricated extension and industry modules and increasing routine of the processes within the new segment. In the current year, the VAR result will moreover profit from the expired PPA from acquisitions that had still burdened the segment's EBIT with about EUR 0.8 m last year.

Highly profitable software business

The last one and a half years have shown that there is further scope for above-average profit growth in the already highly profitable software business as well. After the segment's EBITDA margin had increased by remarkable 3.2 percentage points in the last financial year, in the first half-year of 2017 it climbed further to 25.2 percent. It has thus – for the first time in a half-year – surpassed the mark of 25 percent, which M+M had originally posed as a mid-term target. Nevertheless, we still see further potential for growth-related economies of scale in terms of overhead and development costs.



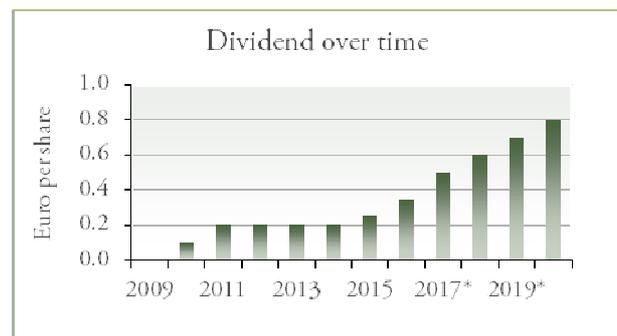
Source: company

Development expenses decline relatively

As Open Mind has completely updated its software over the last few years and is currently pursuing only one major development project that should be completed in about a year, the development expenses should increase only very slowly, if at all. The impact on the result shows clearly in the first half year, where the ratio of development expenses on the segment's sales declined by nearly two percentage points, despite their absolute increase. Compared to the first half-year of 2015, the decline (and thus the margin effect) adds up to 4.4 percentage points.

Reliable forecasts

In recent years, M+M has reliably fulfilled its own forecast, achieving especially the announced profit increases. We think therefore that the current forecast, assuming for the current year another rise in profits of up to 40 percent and for subsequent years a steady further profit increase, is quite trustworthy. Target achievement would mean a profit per share of about 1 Euro in 2020, or a profit growth as compared to 2016 of 150 percent.



Source: company, from 2017 on estimate SMC-Research

Attractive dividend policy

M+M converts the profit growth into a high dividend increase. Between 2011 and 2014, the dividend was kept constantly at 20 cents per share. In the two subsequent years, the shareholders rejoiced in a plus of 25 and 40 percent respectively. If the company should reach a target at the upper end of the forecast corridor, as we meanwhile expect, the dividend would rise this year by another more than 40 percent. At EUR 0.50 per share, this would correspond to a dividend yield of 2.8 percent. In the current low-interest environment, the M+M share offers thus not only an attractive dividend yield but also a comparatively reliable prospect of a further increasing dividend, which the company estimates at 10 to 15 cents per year.

DCF valuation

Surpassing the forecast possible

After a surprisingly strong first half year, M+M has admitted that this year's forecast is comfortably attainable. We have taken this and the solid framework conditions as a reason to raise our estimates, which had been so far partly in the middle of M+M's forecast corridor, to the upper end or even slightly above it. Our sales estimate remains unchanged at EUR 168.7 m. We have, however, raised the anticipated gross margin due to the strong shift in the sales mix to nearly 60 percent. On this basis, we expect that the gross margin will crack the mark of EUR 100 m already this year, our estimate is now EUR 100.5 m. With the expectations with regard to expense ratios remaining unchanged, this rise translates to a higher EBITDA estimate, which we assess now at EUR 19.5 m (so far: EUR 18.2 m). This corresponds to an EBIT estimate of EUR 17.1 m. We expect the net profit to be now 59 cents per share, 5 cents more than hitherto assumed.

Target margin slightly higher

We adopt the increase in gross margin for the subsequent years as well, which results – given that assumptions for other expense ratios remain the same – in a slight shift of the assumed margins for the whole detailed forecast period. Our target EBITDA margin for the end of the detailed forecast period in 2024 is now 15 percent (so far: 14.5), the target EBIT margin is 13.9 percent. Finally, we have slightly increased the assumed growth for 2018 as well, thus taking into account the M+M management's confidence with regard to the positive effects of the rental model in the Autodesk trade. We calculate now with a gross profit growth of 11.9 instead of 11.5 percent. The key data of the model business development for the next eight years can be found in the table below; more detailed summaries concerning estimates for balance sheet, income statement and cash flow statement are to be found in the annex. For the subsequent period (terminal value) we calculate with a perpetual cash-flows growth of 1.0 percent and an EBIT margin of 9.7 percent that includes a safety

million Euro	12 2017	12 2018	12 2019	12 2020	12 2021	12 2022	12 2023	12 2024
Sales	168.7	187.3	205.1	224.6	245.9	269.3	294.9	321.4
Sales growth		11.0%	9.5%	9.5%	9.5%	9.5%	9.5%	9.0%
EBIT margin	10.2%	11.1%	12.2%	12.9%	13.4%	13.7%	13.8%	13.9%
EBIT	17.1	20.7	24.9	29.0	33.0	36.9	40.7	44.6
Tax rate	35.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%	33.0%
Adjusted tax payments	6.0	6.8	8.2	9.6	10.9	12.2	13.4	14.7
NOPAT	11.1	13.9	16.7	19.5	22.1	24.7	27.3	29.9
+ Depreciation & Amortisation	2.4	3.2	3.4	3.2	3.3	3.4	3.5	3.5
+ Increase long-term accruals	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
+ Others	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gross operating cash flows	13.5	17.1	20.1	22.7	25.4	28.1	30.7	33.4
- Increase Net Working Capital	2.1	0.0	-0.3	-0.5	-0.7	-0.9	-1.2	-1.5
- Investments in fixed assets	-3.1	-3.1	-3.3	-3.4	-3.5	-3.7	-3.8	-4.0
Free cash flows	12.4	14.0	16.5	18.8	21.2	23.5	25.7	28.0

discount of 30 percent to the figure for 2024.

Discount rate

We discount the resulting free cash flows with WACC (Weighted Average Cost of Capital) at an interest rate on borrowed capital of 4.5 percent. The cost of equity is determined using the Capital Asset Pricing Model (CAPM). Our risk-free interest rate is – at 2.5 percent – the average value of German current yield, the market risk premium of 5.4 percent is set to an average value adequate for Germany (source: Pablo Fernandez, Javier Aguirreamalloa and Luis Corres: Market risk premium used in 82 countries in 2012: a survey with 7,192 answers). Combined with a beta of 1.2 and an assumed target debt ratio of 40 percent, this results in a WACC rate of 6.6 percent.

Price target: EUR 19.80 per share

In our favourite scenario (perpetual growth 1.0 percent, WACC 6.6 percent), these assumptions add up to a market value of equity of EUR 330.2 m or EUR 19.79 per share, from which we derive the new price target of EUR 19.80. The increase over the previous update is attributable to the outlined adjustment of our estimates and to the discounting effect.

Average estimation risk

In addition to the fundamental fair value calculation, we assess the estimation risk on a scale from 1 point (very low) to 6 points (very high). In the light of a market position stable for years, a long-standing

track record and the proven forecast reliability of the management, we think that the predictability of M+M's development is rather good. In our opinion, the greatest uncertainty is still – in spite of the recently achieved progress – the targeted margin improvement in the VAR business. This aspect has considerable impact on our valuation, but the challenge involved is substantial as well. Overall, we think it therefore reasonable to assume an average estimation risk of 3 points.

Sensitivity analysis

For our sensitivity analysis, we have varied the input parameters WACC and perpetual growth. The calculated fair value lies between EUR 15.23 per share in the most restrictive case (WACC of 7.6 percent, perpetual growth of 0 percent) and EUR 29.18 in the most optimistic case.

Sensitivity analysis	Perpetual cash flows growth				
	WACC	2.0%	1.5%	1.0%	0.5%
5.6%	29.18	26.43	24.26	22.52	21.08
6.1%	25.58	23.50	21.81	20.43	19.27
6.6%	22.76	21.13	19.79	18.67	17.72
7.1%	20.47	19.18	18.10	17.18	16.39
7.6%	18.59	17.55	16.66	15.90	15.23

Conclusion

As a specialist for CAD and CAM software, M+M convinces with its strong market position and the well-grounded growth strategy, thanks to which the company has been generating reliably increasing sales and disproportionately rising profits for years.

This series of successes will probably be continued in the current year as well, even if M+M's management had originally declared the year as transitional due to the dampening effect of Autodesk's price model conversion. However, the losses in the Autodesk trade business were compensated very successfully in the first half-year by the high dynamics in the software segment and in the service business of the VAR segment, and the first half year was therefore concluded with new record highs for gross and net profit.

On this basis, M+M thinks that its forecast for the current year is comfortably achievable. Given the already remarkably reliable forecasts, we interpret this as a strong tendency towards – at least – the upper end of the forecast corridor. As we, moreover, assume a still positive economic environment, we have modelled an outperforming of the forecast in our estimates. Based on this, we see the fair value at EUR 19.80. However, considering that the price did rise notably as well since our last update, our new price target indicates only a moderate potential of 4 percent. We change therefore our rating to “hold” and see the M+M share at present as a hold position with an attractive dividend yield.

Annex I: Balance sheet and P&L estimation

Balance sheet estimation

million Euro	12 2016	12 2017	12 2018	12 2019	12 2020	12 2021	12 2022	12 2023	12 2024
ASSETS									
I. Total non-current	62.0	62.8	62.6	62.6	62.7	63.0	63.3	63.6	64.0
1. Intangible assets	42.9	42.3	41.5	40.7	40.1	39.6	39.2	38.8	38.4
2. Tangible asset	13.2	14.7	15.4	16.1	16.8	17.5	18.3	19.0	19.8
II. Total current assets	38.6	40.9	44.5	48.7	53.5	59.1	68.5	78.6	92.4
LIABILITIES									
I. Equity	40.6	47.3	51.5	56.7	63.3	71.3	80.3	90.1	101.0
II. Accruals	8.8	9.6	10.5	11.4	12.3	13.2	14.1	15.1	16.1
III. Liabilities									
1. Long-term liabilities	27.2	22.0	19.1	15.6	11.6	6.9	4.9	2.3	2.3
2. Short-term liabilities	24.0	24.7	26.1	27.6	29.1	30.6	32.5	34.7	37.1
TOTAL	100.5	103.7	107.2	111.2	116.2	122.1	131.8	142.2	156.5

P&L estimation

Million Euro	12 2016	12 2017	12 2018	12 2019	12 2020	12 2021	12 2022	12 2023	12 2024
Sales	167.1	168.7	187.3	205.1	224.6	245.9	269.3	294.9	321.4
Gross profit	91.4	100.5	112.5	123.6	135.8	149.1	163.8	179.4	195.5
EBITDA	15.8	19.5	24.0	28.3	32.3	36.3	40.3	44.1	48.2
EBIT	12.5	17.1	20.7	24.9	29.0	33.0	36.9	40.7	44.6
EBT	11.1	15.8	19.4	23.9	28.1	32.5	36.8	40.8	44.9
EAT (before minority interest)	7.0	10.3	13.0	16.0	18.8	21.8	24.6	27.3	30.1
EAT	6.6	9.9	12.5	15.4	18.1	20.9	23.7	26.2	28.9
EPS	0.39	0.59	0.75	0.92	1.08	1.25	1.42	1.57	1.73

Annex II: Cash flows estimation and key figures

Cash flows estimation

million Euro	12 2016	12 2017	12 2018	12 2019	12 2020	12 2021	12 2022	12 2023	12 2024
CF operating	14.6	14.7	16.3	19.1	21.6	24.4	27.1	29.6	32.1
CF from investments	-3.4	-3.1	-3.1	-3.3	-3.4	-3.5	-3.7	-3.8	-4.0
CF financing	-14.5	-9.7	-12.2	-14.8	-16.7	-19.0	-18.0	-20.1	-19.2
Liquidity beginning of year	9.6	6.4	8.3	9.3	10.3	11.8	13.7	19.1	24.7
Liquidity end of year	6.4	8.3	9.3	10.3	11.8	13.7	19.1	24.7	33.8

Key figures

Percent	12 2016	12 2017	12 2018	12 2019	12 2020	12 2021	12 2022	12 2023	12 2024
Sales growth	4.2%	1.0%	11.0%	9.5%	9.5%	9.5%	9.5%	9.5%	9.0%
Gross profit growth	8.2%	9.9%	11.9%	9.9%	9.9%	9.9%	9.9%	9.5%	9.0%
Gross margin	54.7%	59.6%	60.1%	60.3%	60.4%	60.6%	60.8%	60.8%	60.8%
EBITDA margin	9.4%	11.6%	12.8%	13.8%	14.4%	14.8%	15.0%	15.0%	15.0%
EBIT margin	7.5%	10.2%	11.1%	12.2%	12.9%	13.4%	13.7%	13.8%	13.9%
EBT margin	6.7%	9.4%	10.4%	11.6%	12.5%	13.2%	13.7%	13.8%	14.0%
Net margin (after minorities)	3.9%	5.9%	6.7%	7.5%	8.0%	8.5%	8.8%	8.9%	9.0%

Disclaimer

Editor

sc-consult GmbH

Alter Steinweg 46

48143 Münster

Internet: www.sc-consult.com

Phone: +49 (0) 251-13476-94

Telefax: +49 (0) 251-13476-92

E-Mail: kontakt@sc-consult.com

Responsible analyst

Dr. Adam Jakubowski

Charts

The charts were made with Tai-Pan (www.lp-software.de).

Disclaimer

Legal disclosures (§34b Abs. 1 WpHG and FinAnV)

The company responsible for the preparation of the financial analysis is sc-consult GmbH based in Münster, currently represented by its managing directors Dr. Adam Jakubowski and Holger Steffen, Dipl.-Kfm. The sc-consult GmbH is subject to supervision and regulation by Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht), Lurgiallee 12, D-60439 Frankfurt and Graurheindorfer Strasse 108, D-53117 Bonn.

1) Conflicts of interests

Conflicts of interests which can arise during the preparation of a financial analysis are presented in detail below:

- 1) sc-consult GmbH has prepared this report against payment on behalf of the company
- 2) sc-consult GmbH has prepared this report against payment on behalf of a third party
- 3) sc-consult GmbH has submitted this report to the customer/ the company before publishing
- 4) The report has been changed as regards content where valid objections arose on the part of the customer/ the company.
- 5) sc-consult GmbH maintains business relationships other than research with the analyzed company (e.g. investor-relations services)

6) sc-consult GmbH or persons involved in the preparation of the report hold the shares of the company or derivatives directly related

7) sc-consult GmbH has included the company's shares in a virtual portfolio managed by sc-consult GmbH

Following conflicts of interests occurred in this report: 1), 3), 4)

Within the framework of compliance regulations, sc-consult GmbH has established structures and processes for the identification and disclosure of conflicts of interests. The responsible compliance representative is currently managing director Dipl.-Kfm. Holger Steffen (e-mail: holger.steffen@sc-consult.com)

II) Preparation and updating

The present financial analysis was prepared by: Dr. Adam Jakubowski

For the preparation of its financial analyses the sc-consult GmbH uses a five-tier rating scheme with regard to price expectation in the next twelve months. Additionally, estimation risk is quantified on a scale from 1 (low) to 6 (high). The ratings are as follows:

Strong Buy	We expect an increase in price for the analyzed financial instrument by at least 10 percent. We assess the estimation risk as below average (1 to 2 points).
Buy	We expect an increase in price for the analyzed financial instrument by at least 10 percent. We assess the estimation risk as average (3 to 4 points).
Speculative Buy	We expect an increase in price for the analyzed financial instrument by at least 10 percent. We assess the estimation risk as above average (5 to 6 points).
Hold	We expect that the price of the analyzed financial instrument will remain stable (between -10 and +10 percent). The forecast risk (1 to 6 points) has no further impact on the rating.
Sell	We expect that the price of the analyzed financial instrument will drop by at least 10 percent. The forecast risk (1 to 6 points) has no further impact on the rating.

The expected change in price refers to the current share price of the analyzed company. This price and any other share prices used in this analysis are XETRA closing prices as of the last trading day before publication. If the share is not traded on XETRA, the closing price of another public stock exchange is used with a separate note to that effect.

The price targets published within the assessment are calculated with common methods of financial mathematics, especially with the DCF (discounted cash flow) method, the sum of the parts valuation and a peer group analysis. The valuation methods are affected by economic framework conditions, especially by the development of the interest rates.

The rating resulting from these methods reflects current expectations and can change anytime subject to company-specific or economic changes.

In the past 24 months, sc-consult GmbH has published the following financial analyses for the company:

Date	Rating	Target price	Conflict of interest
April 25th, 2017	Buy	17.80 Euro	1), 3), 4)
February 16th, 2017	Buy	16.20 Euro	1), 3)
October 27th, 2016	Buy	14.80 Euro	1), 3), 4)
July 29th, 2016	Hold	14.90 Euro	1), 3), 4)
April 28th, 2016	Hold	12.90	1), 3), 4)
February 19th, 2016	Buy	10.50	1), 3)
November 3rd, 2015	Buy	9.50	1), 3)

In the course of the next twelve months, sc-consult GmbH will presumably prepare the following financial analyses for the company: Three updates

The publishing dates for the financial analyses are not yet fixed at the present moment.

Exclusion of liability

Publisher of this report is sc-consult GmbH. The publisher does not represent that the information and data contained herein is accurate, complete and correct and does not take the responsibility for it. This report has been prepared under compliance of the German capital market rules and is therefore exclusively destined for German market participants; foreign capital market rules were not considered and are in no way relevant. Furthermore, this report is only for the reader's independent and autonomous information and does not constitute or form part of an offer or invitation to purchase or sale of the discussed share. Neither this publication nor any part of it form the basis for any contract or commitment whatsoever with respect to an offering or otherwise. Investing in shares, bonds or options always involves a risk. If necessary, seek professional advice.

This report has been prepared using sources believed to be reliable and accurate. However, the publisher does not represent that the information and data contained herein is accurate, complete and correct and does not take the responsibility for it. The opinions and projections contained in this document are entirely the personal opinions of the author at a specific time, and are subject to change at any time without prior notice. Neither the author nor publisher accept any responsibility whatsoever for any loss however arising from any use of this report or its contents. By accepting this document, you agree to being bound by the foregoing instructions.

Copyright

The copyright for all articles and statistics is held by sc-consult GmbH, Münster. All rights reserved. Reprint, inclusion in online services and Internet and duplication on data carriers only by prior written consent.