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N.V. Nederlandsche Apparatenfabriek "Nedap"

Identification Technology/Security Solutions

Date: 17/01/17

Exchange: Euronext Amsterdam

Ticker: NEDP.AS/NEDAP NA/NEDAP-NL – Reuters/Bloomberg/Factset

Recommendation: HOLD

Current Price: EUR 33.85

Target Price: EUR 35.28

Abs. Perf. 1 month: 3.5%

Abs. Perf. 3 months: 9.9%

Abs. Perf. 12 months: 13.2%

Market cap (EURm): 226.6

Current Nº of shares: 6.69m

Free float: 4.46m (66.7%)

Key Financials (EURm):

	2015A	2016F	2017F
Sales	180,875	183,027	185,204
growth	*2.1%*	*1.2%*	*1.2%*
EBITDA	22,187	24,531	21,973
EBITDA margin	*12.3%*	*13.4%*	*11.9%*
EBIT	12,592	16,003	13,904
EBIT margin	*7.0%*	*8.7%*	*7.5%*

CCA (25%)			
(EURm) 2016	Sales	EBITDA	EBIT
Nedap figures	€ 184,49	€ 24,78	€ 16,16
25th percentile	**€ 118,00**	**€ 253,53**	**€ 231,87**
Valuation	€ 191,95	€ 284,39	€ 251,69
75th percentile	€ 424,01	€ 383,47	€ 282,95

CTA (0%)			
(EURm) 2016	Sales	EBITDA	EBIT
Nedap figures	€ 184,49	€ 24,78	€ 16,16
25th percentile	**€ 352,86**	**€ 397,58**	**€ 235,52**
Valuation	€ 486,77	€ 673,09	€ 410,61
75th percentile	€ 552,89	€ 823,44	€ 758,73

DCF (75%)			
(EURm) 2016	Worst	Base	Optimistic
Valuation	**€ 229,39**	**€ 271,61**	**€ 300,11**
Average valuation			**€ 261,67**

Key highlights

We issue a **HOLD recommendation** for Nedap with a 12-month target price of EUR 35.28, providing a 4.2% upside compared to its closing price of EUR 33.85 on the 17th of January, 2017. We base our recommendation primarily on the following attributes:

- **Current restructuring process** resulting in uncertainty. Nedap is currently switching from manufacturing to software and services operations; from a pull to a push strategy; and from in-house production to outsourcing. Though some of the restructuring process is behind schedule, the benefits are expected to be reaped from 2018 onwards, when the restructuring is planned to be completed.
- **Competitive positioning** is expected to change due to the move down the value chain. We expect Nedap to increase its charged margins, as the amount of value-added activities is to be enhanced. Nedap has the innovative ability of a startup in combination with the track-record of an established company. Nevertheless, the Company lacks a targeted marketing strategy, which is vital in order to optimize its competitive position.
- **Strong potential growth drivers** unlocked as a result of the recent restructuring process. We view the strongest growth drivers to be (1) the new focus on software and services, thereby moving to the position in the value chain that captures the highest margins; (2) resulting in client lock-in leading to high recurring revenues; (3) Nedap's innovative, entrepreneurial culture in a fast-paced, growing industry; and (4) the potential to increase revenues substantially if the Company is able to increase its commercial power as projected.
- **Valuation** methods result in a target share price of EUR 35.28 per share, using a Comparable Company Analysis and a Discounted Cash Flow analysis. We are positive about Nedap's future. However, we foresee this upside not to materialize until after the restructuring process has finished, as Nedap has a history of intransparent reporting, resulting in an investor-cautious stance.
- **Actionable steps** we would recommend Nedap to take are amongst others ensuring the restructuring process is successful and communicate this in a transparent way to shareholders. We consider marketing and sales, one of Nedap's current weaknesses, to be its most propitious opportunity, especially considering Nedap is switching from a pull to a push strategy. In addition, we would recommend further internationalization as Nedap offers unique services and foreign markets are growing fast.
- **The main risks** to Nedap's target price is (1) Radio-Frequency IDentification becoming obsolete; and (2) failure of the restructuring process. While the former would be, though unlikely, potentially detrimental to the company's share price, the latter would not likely result in a large negative impac due to the stock's illiguidity and investors' cautious stance that does not price in a restructuring success. We view Nedap's focus on increasing its commercial strength as being of utmost importance for the new strategy to prosper.
- **Concluding** we recommend shareholders of Nedap to **HOLD** their shares, at least until the restructuring process has finished. Nedap has intransparent reporting and a nonvolatile share price but a clear end-goal in mind. We however expect this potential upside to only materialize in the share price in the long-run.

Figure 1: Growth Pillar and Actionable Steps Recommendations

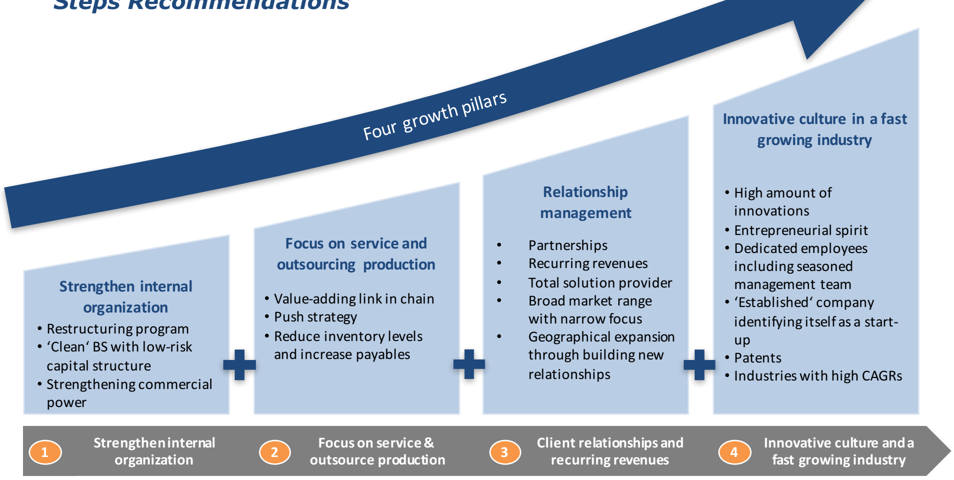


Figure 2: Nedap's Business Segments

Figure 3: Geographic Division Sales (inner circle) and Fixed Asset Base (outer circle)

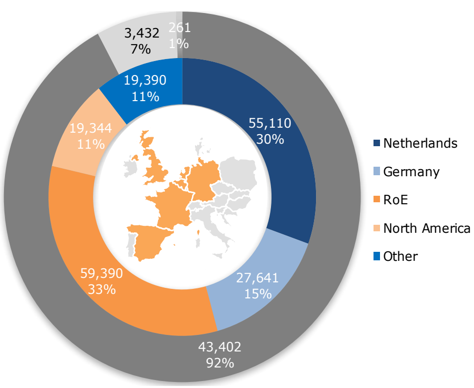
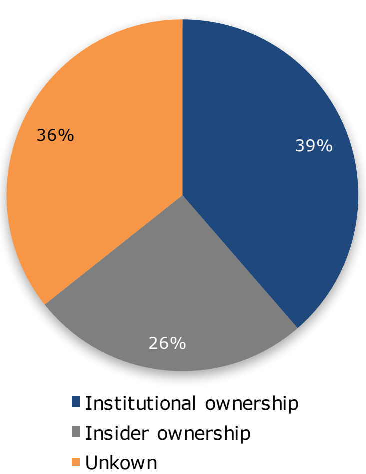


Figure 4: Ownership Statistics



Business description

NV Nederlandsche Apparatenfabriek ('Nedap' or 'the Company') is a Netherlands-based technological company focusing on supplying identification and security solutions. Many of the Company's products are based on Radio Frequency IDentification ('RFID') technology and provide products or animals with unique identification characteristics that can be accessed using radio waves. A RFID device must be scanned to subsequently retrieve identifying information. The Company has a broad range of products and services and operates with eight different business units:

1. Identification Systems: focuses on systems for vehicle and people identification, wireless vehicle detection and city access control.

2. Light Controls: develops and produces intelligent, dimmable electronic lamp drivers for gas discharge light sources, including industrial high bay applications and UV technology for purifying drinking water.

3. Library Solutions: provides RFID technology ensuring the conduct of remote, real-time book inventory.

4a. Livestock Management – Pigs: offers systems providing electronic sow feeding, heat detection, and sow separation; farrowing feeding; pig sorting; and pig performance testing.

4b. Livestock Management – Cattle: offers systems for diary management including identification, separation, electronic concentrate feeding, and milk yield recording; heat detection; and systems that provide cow positioning information

5. Retail: enables retailers to monitor their merchandise by providing RFID technology, thereby optimizing in-store stock levels, reducing store losses, and increasing sales.

6. Security Management: provides its customers with AEOS, a security management platform that offers access control; intrusion detection; video management; and locker management.

7. Staffing Solutions: which is also known as Nedap PEP, offers a digital system to customers for time tracking of its employees' working hours; offers solutions for scheduling the workforce; and offers software reducing administrative tasks.

8. Healthcare: offers tools and software to organizations in order to improve elderly care, care for the disabled, and those focusing on mental health care.

Nedap also has an Energy Systems business unit, planned to be phased out by the end of 2016.

Geographical Focus

Nedap focuses primarily on the Netherlands where 30% of all sales are generated (Figure 3). The domestic focus is confirmed when looking at the division of book value of tangible and intangible fixed assets, as 92% of these assets are located in the Netherlands. Thus, while Nedap mainly produces in the Netherlands, its wide base of clients and different business units generate revenues throughout the world, highlighting the historical importance of exports. The opportunity of customization of the products and services enables Nedap to serve clients worldwide, expanding its geographical revenue distribution, while operating through its base in the Netherlands.

Revenue per Business Unit

Even though Nedap does not report on a business unit level, management stated that three of the Company's business units generate the lion share of overall revenues: the Livestock Management unit, the Retail unit, and the Security Management unit. We assume, based on the information obtained from the CFO, these three units account for 70% of overall revenues at equal weight, while all other units are assumed to jointly account for the remaining 30% of overall revenues.

We found correlations between Nedap's share price and traded commodities and based our forecasts for specific business units of the Company on current market expectations. We have analyzed the cross-correlation of share price and widely traded commodities that drive the underlying business branches and industries in which Nedap operates. As a driving factor, we choose the AEX index, European Retail trade index, historical dairy prices, and Livestock and Agriculture ETFs. After normalization of the data set with regards to stationarity, we have regressed the stock returns on selected market variables. The analysis of cross-correlation revealed that the share price reacts to changes in underlying indices and commodities with a lag. For the Netherlands Stock Exchange index the relevant delay is 2 weeks; EURetail seems to be irrelevant for Nedap stock; for Dairy prices we wait 3 quarters or 39 weeks for a share price reaction; and Livestock price developments correlate negatively with the share price and the effects are seen after 3 quarters and a year. Moderate stock trading volume is one of the main reasons for the price stickiness. The residuals of the model characterize with stationarity and are normally distributed (See appendix 1).

Shareholder Base

Figure 4 shows ownership statistics for Nedap. In line with figure 3, a large portion of Nedap's top holders are Netherlands-based, comprising 98% of the Company's identified total shareholders. The largest institutional shareholder is Delta Lloyd Asset Management NV with a holding equal to 13.5%. The next largest shareholder holds less than 10% of all shareholdings. Most of the identified shareholders are institutional investors. A quarter of all investments comes from insiders, the largest shareholder being Cross Holdings Investments, which has a share of 15% in the Company. In 2010, TKH Group, a Netherlands-based listed company wanted to merge with Nedap, which Nedap declined. TKH Group since has a 5% stake in Nedap.

Industry Outlook and Competitive Positioning

With its eight business units, Nedap faces a broad set of industry dynamics and competitors. The Livestock, Retail, and Security markets, in which Nedap is assumed to generate the lion share of its revenues, are being scrutinized in the following section. First, the outlook of the single markets is analyzed, followed by a competitive map of every single market and Nedap's position therein.

Livestock Management market

The key growth driver of the Livestock Management market is the increasing consumption of meat and other livestock products, such as a key protein source. The cattle market in particular is especially sensitive to changes in milk prices.

Figure 5: Performance & Outlook

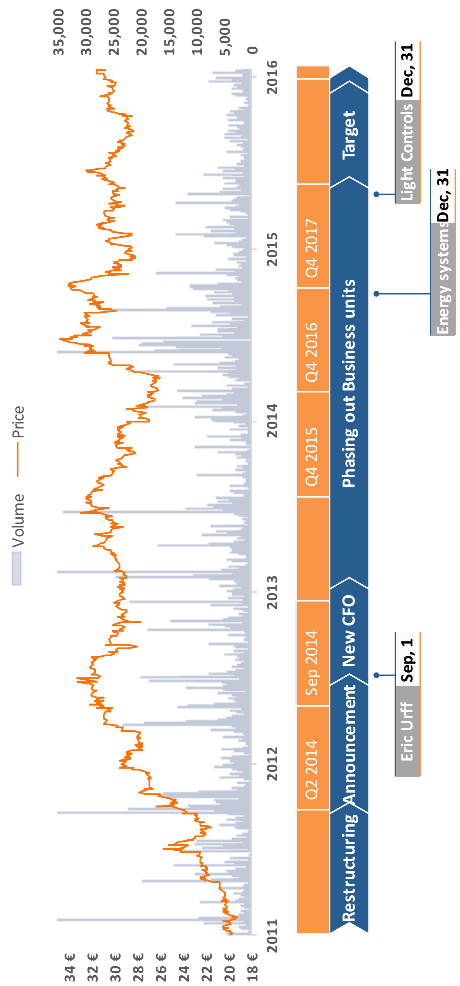


Figure 6: Competitive Positioning

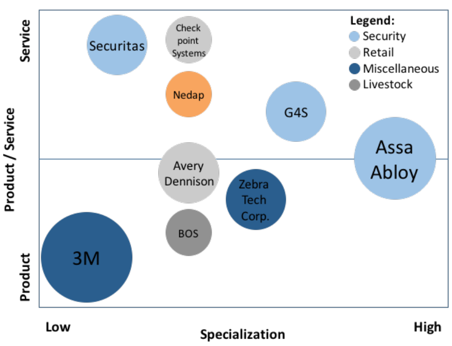


Figure 7: SWOT Analysis

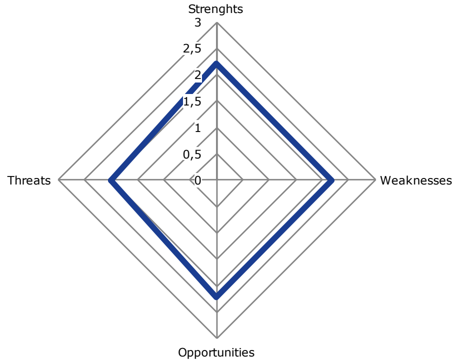


Figure 7.1: Overall SWOT

While the overall market is expected to grow at a moderate pace, the regions Asia Pacific and Latin America are expected to experience the strongest growth. Considering the nature of this business segment, large farms with multiple thousand animals as mostly found in the Americas and Asia Pacific offers the greatest potential for valuable business relationships.

The main competitor in this market is the US-based company Allflex Holdings, Inc. which is active in animal identification and has global operations. It is the animal identification market leader and with its recent acquisition of the Israel-based company SCR Engineers Ltd., the company significantly strengthened its cattle unit. While Allflex traditionally concentrated on the manufacturing of sensors, the acquisition of SCR expanded the company's portfolio by software-based solutions, thereby approaching Nedap's market segment.

Retail Technology arket

Growth of the Retail Technology market is mainly driven by an increase in per-head expenditure and higher demand for packaged, processed, and value-added food and drink products. The global Retail Technology market is expected to grow further, especially in Asia, where a growing middle class and retail and trade liberalization contribute to above-average growth figures. Nedap's success in developed countries will highly depend on the market's acceptance of technology solutions and further investments therein. Most companies servicing the retail technology market focus on a certain aspect, such as data analysis or software provision, while there are some companies such as US-based Avery Dennison and Checkpoint Systems that offer integrated solutions similar to Nedap's offerings at a larger scale.

Security Management market

Security Management at Nedap is a purely European business. The overall security management market consists of two parts: electronic physical security and mechanical physical security. Key growth drivers are the continuing decline in prices of security products, which leads to a rising adoption of electronic security systems among ever-smaller companies. With its focus on the electronic physical security market, Nedap's key technology in this segment is its software-based security platform AEOS. The platform integrates all types of security service provisions in a flexible fashion, regardless of the hardware in use. Key customers of this segment are corporates and governmental agencies, including the European Parliament and the Dutch Ministry of Defense. A recent certification by the French National Information System Security Agency provides further opportunities in the French market. Key competitors in the security market are Sweden-based Assa Abloy and Sweden-based Securitas. The common denominator to all of Nedap's key offerings is their potential for recurring revenue generation. Switching costs are considerably high for integrated solutions encompassing technology and software components.

General Pattern in Nedap's market

A general pattern that is observable throughout all technology-related markets is a shift of potential for value creation along the value chain. Integrated systems that combine technology and software are on the rise, which has a significant impact on the scope of various actors in the industry. Companies are positioning themselves to capture the value of Big Data and the Internet of Things. This also holds for Nedap, which has initialized a restructuring process to move away from a manufacturing business model towards a technology and software focus. Its broad structure with business units across multiple markets, which used to be a liability under a manufacturing focus, is bound to become a competitive advantage under a technology and software focus. The fact that two business units that were not in line with the overall business strategy are being phased out, along with a 60% reduction of the product portfolio, demonstrates an alignment with the Company's corporate culture of spurring innovation while fostering an entrepreneurial spirit. However, capturing the full potential of all markets would require growth beyond Nedap's organic growth boundaries. A competitive positioning landscape can be found in figure 6.

SWOT Analysis

Strengths:

Nedap's key strength is its new position in the value chain, where the Company is able to capture the highest margin and the strongest bargaining position. In addition, Nedap's diversified portfolio of business units provides the possibility of cross-subsidization which mitigates idiosyncratic risk. Operationally, Nedap's culture lends itself for a high degree of innovation and new product development, thereby facilitating its push strategy. Financially, Nedap's imperative strength is its stable free cash flows and accompanying steady dividend payout ratios.

Weaknesses:

With a free float of only 25.5%, Nedap's stock is highly illiquid. Most shareholders cannot sell their stock holdings without a subsequent change in the stock price. This results in low levels of control; a high level of opaqueness regarding Nedap's financial and set-out strategy; management that is hard to call to account; and questionable corporate governance, of which Nedap's poison pill is an example. Operationally, Nedap's serious weakness is its lack of commercial strength, which is crucial in order for the new strategy to succeed. Financially, Nedap shows a low level of leverage. Management states this is because they prefer to take risks on the front-end of the business. Nevertheless, we believe this front-end risk taking is possible with a higher, more optimal level of leverage too.

Opportunities:

Inherent in Nedap's weakness, its most promising opportunity is a turnaround of its selling power, thereby enabling the push strategy. Operational opportunities include geographic expansion, most importantly to the Americas and Asia, and new software and services developed internally by virtue of Nedap's strong innovation capability. As Nedap is currently decreasing its product portfolio from 1,000 to 400 products, portfolio optimization is a key. Finally, the Company could enter completely new, fast growing markets that also use RFID technology, such as the banking & financial sector. Financially, adding debt could leverage Nedap's performance and increase return for the Company's equity holders.

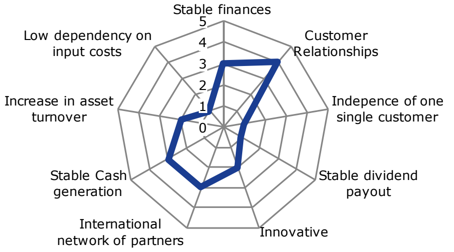


Figure 7.2: Strengths

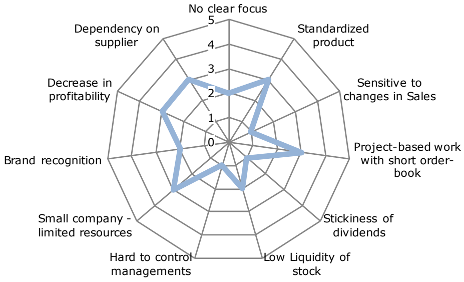


Figure 7.3: Weaknesses

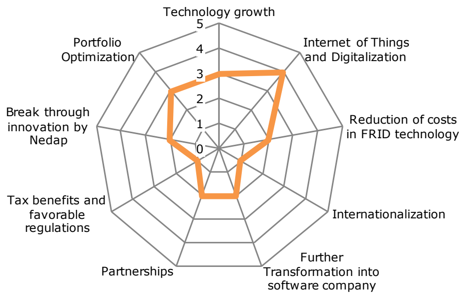


Figure 7.4: Opportunities

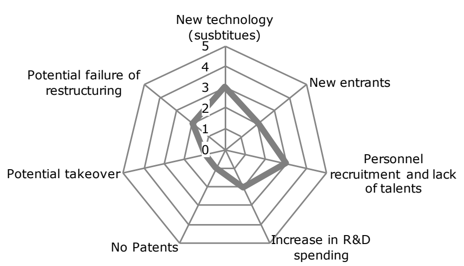
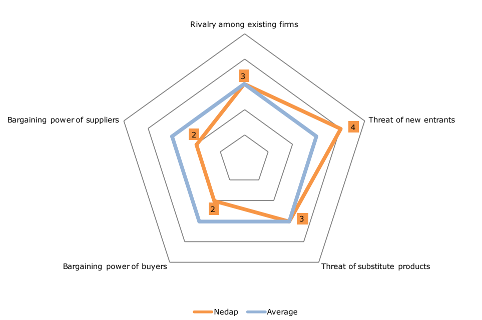


Figure 7.5: Threats

Figure 8: Porter's 5 forces



Threats:

The development of a new technology poses the biggest threat to Nedap. Since all its operations are based on RFID technology, a new technology could disrupt the entire industry. Furthermore, success of the restructuring process is key in order for Nedap to reduce costs and remain competitive. Thus, it is essential that the Company selects reliable suppliers for the manufacturing of its products. This is related to the fact that, as Nedap will outsource most of its production processes and that the products itself are relatively easy to produce, the threat of a vertical integration strategy is significant. Financially, the existence of a poison pill results in reduced incentives for management to perform well, as well as that the value of shares will dilute once the poison pill has been activated.

Five Forces Analysis

Rivalry among existing firms – *MEDIUM*

Given the broad set of industries that Nedap operates in while being of a rather small size, it has to compete with specialists in most industries as well as with some larger generalists. The market for integrated technology solutions offers significant growth potential across all markets as input prices decrease and ever smaller firms are willing to go digital. Despite the large number of rivals in the overall industry, the sizeable growth therein allows all participants to reap substantial benefits. We therefore acknowledge the existing rivalry without perceiving it to be a current threat, though with the awareness of a future threat as soon as growth stagnates.

Threat of new entrants – *MEDIUM/HIGH*

The threat of new entrants particularly depends on the speed with which new entrants can establish relationships with clients. The industries in which Nedap operates show substantial growth potential, making them attractive for new entrants. Furthermore, RFID technology is relatively easy to produce. Nonetheless, switching costs are substantial as Nedap offers integrated solutions to clients and switching costs between two providers are considerably high given the use of different systems. Finally, Nedap has established synergies between its business segment, allowing them to benefit from scale advantages. Therefore, although the threat of new entrants is considerably high, Nedap has certain practices in place to partly mitigate this risk.

Threat of substitute products – *MEDIUM*

The overall threat of substitutes heavily depends on the speed of technological progress which is hard to predict given the current industry dynamics. Given its increasing focus on providing integrated solutions to businesses, Nedap has to closely monitor technological advancements such as the sensor fusion technology recently patented and used by Amazon in its new brick-and-mortar store format "Amazon Go", as such changes may render its services obsolete. The likelihood and magnitude of these developments and the respective market acceptance is relatively hard to capture. As long as there is no established alternative, RFID technology will continue to be the industry standard and is likely to experience ever-increasing demand.

Bargaining power of buyers – *LOW/MEDIUM*

For most of Nedap's business units, excluding the Security Systems unit, past projects with government involvement have proven to be unpredictable and unprofitable, which is why they are being phased out to a large extent. Nowadays, the Company mainly services mid-sized corporates and large farms that are being managed as businesses, with no single customer accounting for more than 10% of overall revenues, which significantly reduces buyers' bargaining power. Furthermore, the nature of all businesses requires customers to commit to a single provider over a long period of time as switching costs are relatively high. This fact, in combination with recent certifications that significantly reduce competition, has a further diminishing effect on buyers' bargaining power.

Bargaining power of suppliers – *LOW/MEDIUM*

In the past, Nedap mostly developed its products, services/software, and knowledge in-house, thereby lowering its dependence on suppliers. Due to the current restructuring process, in which Nedap will outsource most of its production process, it will depend on the six selected manufacturers increases. However, by choosing six different suppliers, Nedap limits its dependence on one single provider. Furthermore, as RFID technology is relatively easy to produce, the Company could switch to different suppliers if deemed necessary in the future. These elements combined, it can be stated that single suppliers have limited power.

Investment Summary

We issue a **HOLD recommendation** on Nedap with a 12-month target price of EUR 35.28 per common share, based on a Discounted Cash Flow Analysis and a Comparable Company Analysis. This valuation is supported by first achievements of the current restructuring efforts and their credibility going forward, as outlined below.

Current achievements

Streamlining markets and services

Nedap is currently phasing out two business units due to limited growth opportunities: the Energy Systems business unit, to be completely phased out by the end of 2016. The Company is furthermore reducing its product portfolio by 60% and outsourcing most of its manufacturing activities to multiple suppliers. This allows Nedap to focus on the markets that offer most potential.

Attractive markets with significant opportunities for growth

Nedap's focus lies on markets with significant growth opportunities where we foresee the Company to be able to realize a CAGR of ~10%. Its livestock business is set to capture the value of increasing use of technology and software, especially in the Northern American market where it targets large farms and has promising prospects to date. Within these markets, the Company focuses on value-added activities by developing and providing integrated solutions.

Based on established relationships with large industry participants and governmental agencies in combination with relevant certifications that give the Company a competitive edge, Nedap has been able to develop a push-strategy. It has moved away from taking up trends from the market and increasingly focuses on shaping the market through their broad presence and innovations-to-market.

Figure 9: Value Creation Chain

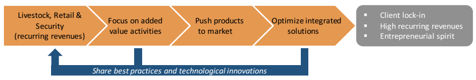


Figure 10: Change to Service-focus

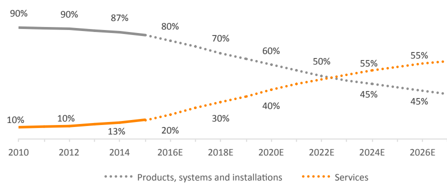


Figure 11: Effect of Restructuring on Cost Base

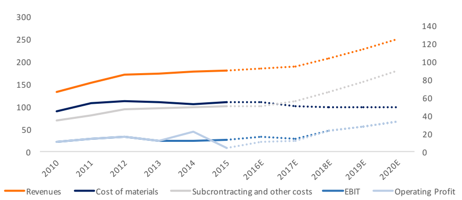


Figure 12: Total effect of Restructuring

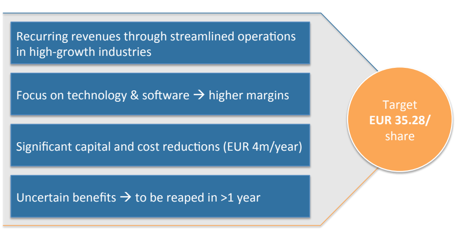
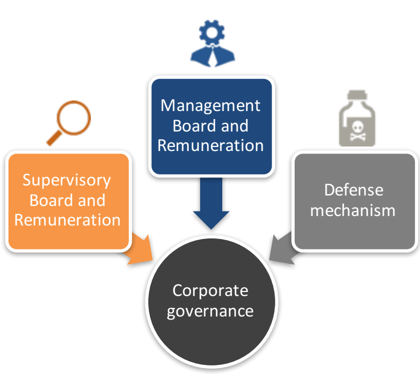


Figure 13: Management & Governance



Focus on recurring revenues

Through long-term contracts and strategic projects, Nedap set out to increase the share of locked-in, recurring revenues. First successes are observable in the share of revenues from services versus revenues from products and installations. They have increased from 10% in 2010 to 20% expected in 2016 and are forecasted to increase further.

Issues yet to be addressed

Completion of restructuring process

Even though the first steps of the restructuring process have been successful and the phasing out of two business units is on schedule, we expect the overall restructuring process, especially of the supply chain, to fall behind schedule. Furthermore, Nedap runs the risk of diverse business disruptions while completing the restructuring process. In case of the unlikely event of a failure to complete the restructuring process, we expect its share price to stay at the current level considering investors currently do not foresee the process to be successful. Moreover, Nedap has little debt on its balance sheet which lowers the impact of a failure in the process on the Company's share price.

Changing employee profile

A focus on innovation and an entrepreneurial mindset, combined with lower levels of manufacturing, will require a different employee profile. Nedap will not be able to solely rely on existing workforce and will have to lay off a significant number of employees, which will be costly. At the same time, it will have to attract and retain highly qualified employees. This is a significant challenge, considering the location of its head-office and the fact that Nedap is relatively unknown.

Concerns

Dominate viable niche in all markets

While the shift of its focus creates multiple opportunities, Nedap will have to establish a sustainable competitive advantage in its niche in each strategic market. The downside of operating in numerous markets will be the battle on multiple fronts as soon as growth slows down and competitors compete for existing market share.

Lack of transparency as hindrance to improved credibility

Nedap does not release any information on performance per business unit and does not publicly disclose any figures beyond revenue figures by geography and by source in terms of product or service. This complicates assessing the Company's prospects while at the same time creating opportunities for associated investors. Shareholders that are not associated with the Company are expected to remain skeptical about its performance until Nedap is possible to report significant progress and improved results.

Earnings Forecast

Earnings are expected to be depressed by the ongoing restructuring process in 2017. However, we do not expect Nedap incur further restructuring costs beyond the EUR 2.5m budgeted for 2017. Future revenues are expected to be increasingly driven by technology and software and less by products and installations.

Due to the Energy Systems, and the Light Controls units being phased out, we expect cost reductions in the amount of EUR 4m per year. The outsourcing efforts will have significant impacts on Nedap's cost structure.

These effects, combined with an anticipated revenue growth of almost 10% as of 2018, mainly driven by the Asian Retail market, the European Security market and the North American Livestock market, lead to a positive earnings development. After a decrease in 2017, we expect EBIT margins to grow by more than 10% YoY thereafter. Most costs are created from the production process, they are expected to decrease (asset base decrease) due to the shift towards software businesses.

Management and Governance

The institutional investors that have a shareholding in Nedap can all be classified as being very low on activism, apart from Norges Bank Investment Management, which holds merely 0.09% in the Company. Due to the extreme low liquidity and the low number of floating shares, selling a large shareholding is bound to decrease the share price substantially. This results in shareholders with little bargaining power and management with a strong power position. The Company provides excessively opaque reporting, leaving shareholders often grasping in the dark regarding the true performance of each division, resulting in a cautious shareholder-stance. Nedap works with a statutory two-tier system.

Supervisory Board and Remuneration

The supervisory board consists of four members, of which three are men and only one is female. This means that Nedap does not comply with the recommendation of the Dutch Corporate Governance Code, which states that companies must strive for at least 30% of the seats in the executive board to be held by women. The supervisory seats are held by Mr. G. Kolff, Mr. J. van Engelen, Mrs. Theyse and Mr. M. Westermann. Though the men on the board seem to have sufficient experience in the sector, the relevant experience of Mrs. Theyse is arguably low, as she has no previous experience with the technological sector, nor with a board position. In addition, Westermann seems over-boarded, as he is currently on the board of 6 other boards. Moreover, he is a professor at two Dutch universities. This conceivably implies he has excessive time commitments and an inability to fulfill his duties with regards to Nedap. Van Engelen's period as a board member is about to expire, as he has been on the board for almost eight consecutive years. All supervisory board members receive EUR 30k annually, besides the chairman, who receives EUR 40k annually.

Management Board and Remuneration

The management board consist of the CEO, Mr. R. Wegman and the CFO, Mr. E. Urff. Mr. Wegman has been CEO for almost 8 years, whereas Mr. Urff has only been CFO since April 2015. Their remuneration consists of a fixed and a variable part.

The supervisory board is responsible for setting the variable part of the remuneration each year based on the determination of reaching the following three elements: (1) financial targets; (2) targets relating to the development of the internal organization and (3) targets focusing on the way in which

Figure 14: Share Price Development vs Peers

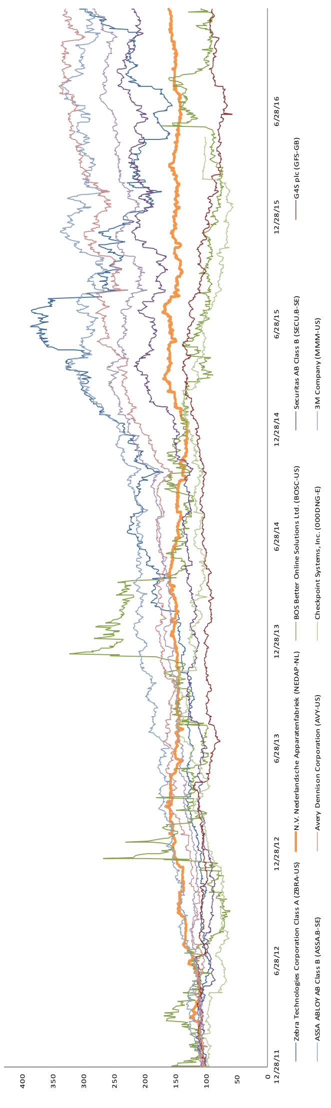


Figure 15: Peer Group Beta

Peer	BOS	G4S	Assa Abloy
Country	IL	UK	SE
Market Beta	*1.03*	*0.92*	*1.06*
MV Debt	3	2720	19,892
MV Equity	6	3,530	187,777
Equity ratio	*63.5%*	*56.5%*	*90.4%*
Marginal Tax Rate	25.0%	24.0%	26.3%
Unlevered Beta	**0.72**	**0.58**	**0.98**

Peer	Avery Den-nison	Zebra Techno-logies Corp.	3M
Country	US	US	US
Market Beta	*1.14*	1.7	1.02
MV Debt	1,300	2,820	12,360
MV Equity	6,400	4,640	107,660
Equity ratio	*83.1%*	*62.2%*	*89.7%*
Marginal Tax Rate	40.0%	40.0%	40.0%
Unlevered Beta	**1.02**	**0.82**	**0.85**

Median equity ratio	63.5%
Median unl. beta	0.72

the organization operates in its environment. 60% of the fixed annual income is paid for performance at target level. In order to align interest, the supervisory board also requires that both directors must contribute at least 50% of their variable annual income after tax to Stichting Medewerkerparticipatie Nedap in exchange for depositary receipts. These depositary receipts are locked up for a period of four years.

Defense mechanism

The Company protects itself from hostile takeovers using Stichting Preferente Aandelen (the "Stichting"). In case a third party tries to gain control of Nedap without consent of or acting in the interest of its business and stakeholders, the Stichting, consisting of 5 "independent" people, can decide to exercise the defense mechanism incorporated in the Stichting. Questionable is the degree of independence of the Stichting, as no further information is available on this issu.. In case the Stichting decides to exercise the defense mechanism, Nedap is obliged to issue preference shares equal to the total number of ordinary shares in issue, minus one, at the time the option is exercised. The Stichting has to pay at least 25% of the preference shares' nominal value in cash. Though this defense mechanism might benefit shareholders, it also has the potential to severely damage shareholder value, as good takeover bid might be rejected in the face of e.g. management's job security. On top of that, the defense mechanism, in case it is executed, results in dilution.

Valuation

General outlook for assumptions regarding input valuation

Objectives of the restructuring process

We view Nedap to have recently undergone a major change with regards to its focus from individual customers to moving markets. The new strategy is aimed at pushing products to the market and thus transforming the markets it operates in. The Company tries to achieve this while at the same time keeping a long-term perspective and a robust financial position. Nedap clearly differentiated in which markets it chooses to continue operating, as it is currently divesting the Energy Systems business unit, to be completely phased out by the end of 2016, and the Light Controls unit, to be completely phased out by the end of 2017. Management stated that it intends to focus on those markets that offer sufficient possibilities to bring about the aforementioned change, on top of choosing its clients very carefully. Nedap also intends to reduce its product offering from 1,000 to 400 products, thus focusing more on value-added activities and selling products and services on which it can charge high margins. In sum, Nedap's management carefully selected markets it wants to operate in and products it intends to sell to specific clients, thereby taking into account long-term goals and expected trends. Finally, as Nedap is clearly shifting from products that need scale to products that are pushed in the market with high margins, business risks can be better managed and the original company culture can thrive in this environment. The capital structure is rather prudent, so that an entrepreneurial business stance with a high degree of innovation can continue.

Current position restructuring process

For the aforementioned reasons, we expect an increase in the share price of Nedap. However, Nedap's supply chain reorganization is slightly behind schedule and current large inventories are expected to decrease after the reorganization has been finished. The phase-outs of the Energy Systems and Light Control business units is on schedule, annual cost reduction of EUR 4m are anticipated, and we have no reason to expect further restructuring costs or impairments. In fact, excluding the Energy Systems business unit from 2016 figures, anticipated full-year growth would be 5% versus 3% including the business unit. Most business units are expected to expand organically, either geographically or further in the Netherlands.

Future Outlook

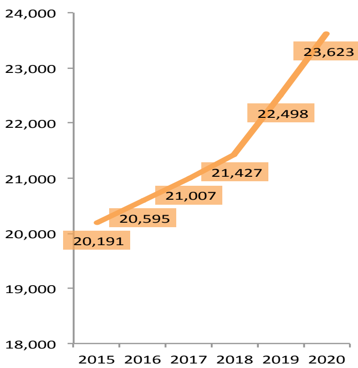
Very importantly, after investigating RFID, we conclude that Nedap does not have a competitive edge due to its products, as these are rather simple to make. We consider Nedap however to have a strong competitive position due to value it can add via services, such as its software. We thus agree with the rationale as to why Nedap decided to transform itself in a more service-based firm. Due to Nedap being the agent in the supply chain from which the customer can retract most value added, we expect the products to be relatively easy to outsource. As becomes clear, we are to a high degree affirmative of Nedap's new road it plans on taking, though we do have several concerns. One of these concerns is the fact that we expect Nedap might have a hard time attracting talent, as this talent attraction arguably is the most important aspect of the new strategy. Nedap's CFO responded to our concern by stating that it has partnerships with several excellent technical universities in the Netherlands. In addition, we were slightly concerned about Nedap's strategy to not request a patent on several of its innovations as this might incentivize competitors to start competing in certain markets. Nevertheless, we expect Nedap to patent the most imperative product innovations, such as the recently patented device for determining animal movements.

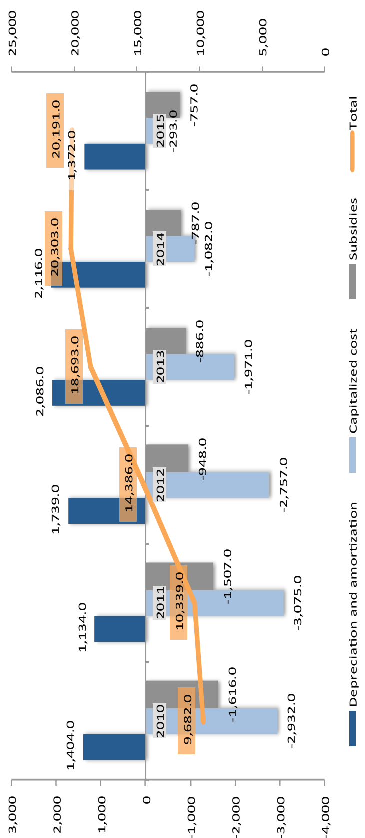
Discounted Cash Flow method

Financial assumptions regarding input valuation

Nedap is focused on the long-term and management tries to ensure a stable financial basis as much as possible. This way, risks can be managed, taking them at the front-end of the Company, thereby triggering innovation and entrepreneurial activities. The financial strategy contrarily, is thus aimed at continuity, prudence and solidity. An example is the full expensing of R&D, as management states it is hard to estimate which products will and which products will not be successful. Adding to its stable financial position, Nedap ensured in 2016 that ABN AMRO Bank will continue the current credit agreement with another 7 years, thereby offering Nedap with the possibility to control its working capital balance and to keep doing business as it intends to: (1) without any covenants, (2) a flexible repayment schedule and (3) the ability to absorb potential setbacks. We expect a decrease in inventory due to the change in business strategy starting in 2018. In addition, we expect Nedap to be able to increase its days payable, thereby decreasing the need to use the aforementioned ABN AMRO Bank credit. We hence expect an increase in solvency. The Company faces a low effective tax rate due to the innovation box which is expected to last until 2020. In order to estimate the value of Nedap, we conduct a DCF analysis, comprising of an explicit forecasting period of 12-years and an implicit period afterwards.

Figure 16: Increase in R&D due Focus Change





We have decided to forecast the upcoming 12 years to account for the transition period and we believe that at the end of the chosen time horizon the company will reach the steady state.

Weighted Average Cost of Capital

In order to arrive at the appropriate discount rate for the cash flows, we use the average unlevered beta of the peer group (β=0.85). This peer group was derived during the CCA, which will be described in a following paragraph. Furthermore, we use the targeted capital structure (85% equity / 15% debt) for Nedap to derive the levered beta for the Company (β=0.96). Furthermore, we include a size premium of 4.1%, as small firms such as Nedap are implied to be riskier, and thus are expected to generate higher returns. To calculate the cost of debt, we use Nedap's Ba-credit-rating to determine the appropriate spread over the risk-free rate, which is 3.9%. The result is a WACC of 11.4% (for further details regarding the calculations of the cost of equity and cost of debt, refer to appendix 2).

Revenue growth

As mentioned before, we estimate the three most important business segments to generate approximately 70% of total revenue. For these business segments, we analyze the expected CAGRs for the following geographic regions: Netherlands, Europe, Asia, and North America, as well as for the healthcare segment division. Namely, this is the division that is expected to grow mostly in the upcoming years. From 2020 onwards, we assume a fade factor of 15% to account for reduced market growth potential. In terms of geographic growth, Nedap's Asian business is expected to grow with a CAGR of 8.5% between 2015 and 2020, following by Europe (6.5%), the Netherlands (6.4%) and North America (5.9%). For the years following, we include a fade factor of 15% to account for diminishing growth opportunities in all sectors and regions. Refer to appendix 3 for a detailed breakdown of the revenue development.

Cost reductions

The Company states that it expects to save approximately EUR 4m on an annual basis if the restructuring process has been completed, which is in 2018. This is mainly caused by a reduction in the number of employees and a switch from in-house production to outsourcing.

Overall

Based on the above stated assumptions, we derive an enterprise value of EUR 271.6m. Given the non-operating assets and liabilities and the value of net debt, this translates into an equity value of EUR 246.1, or EUR 36.77 per share. As the current share price is EUR 33.85, this shows a potential upside of 4.2% based on our DCF analysis (refer to appendices 3 until 6 for a detailed overview). Nonetheless, we decide to conduct alternative valuation methods to test the validity of our results.

Alternative Valuation methods (CCA & CTA)

Comparable Company Analysis

For the Comparable Companies Analysis ('CCA'), 11 comparable companies have been identified, of which nine have been included in the analysis. Each company is selected on the criteria that it is operating in either the Livestock, Security Systems, and Retail industry. Using historical multiple analysis, Nedap realized the following multiples in 2015: EV/Sales 1.4x, EV/EBITDA 11.1x, EV/EBIT 19.5x (A detailed analysis of the 2014 multiples can be found in appendix 9).

Livestock

For the livestock industry, one listed company has been identified (Better Online Solutions ('BOS')). In comparison with Nedap, BOS underperforms in terms of the Sales (11.9x), EBITDA (9.2x), and EBIT (11.9x) multiples in 2015.

Security systems

Four comparable companies have been selected which are focused on the security systems industry. Of these firms, the median EV/Sales multiple was (2.5x), the median EV/EBITDA multiple 19.7x and finally, the median EV/EBIT multiple 15.1x.

Retail

Two companies active in RFID technology for the retail industry have been analyzed. The median Sales multiple is 0.9x, the EBITDA multiple 8.6x, and the EBIT multiple 14.4x. Thus, it is observable that companies in this industry are performing relatively worse in comparison with the other industries.

Miscellaneous

Two other companies which are active in a wide range of activities have been selected as well, as RFID technology is part of their portfolio: 3M and Zebra Technologies Corporation. As these firms are significantly larger in size and have a more diversified industry portfolio, their trading multiples are outperforming those of Nedap. The Sales multiple for 2015 was 3.1x, the EBITDA multiple 26.8x, and the EBIT multiple 16.3x.

Overall

When comparing the three industries, there are considerable differences in terms of the median trading multiples for each industry. As we believe that the Livestock, Security Systems, and Retail industries are currently of equal importance to Nedap's operations, each segment is given equal weight in the CCA analysis. Thus, the median Sales multiple for the nine companies is 1.7x, the EBITDA multiple 13.5x and the EBIT multiple 15.6x. One potential explanation of the relative outperformance of NEDAP for the EBIT trading multiple, whereas is it underperforming for the other trading multiples, could arguably be the low CAPEX level versus peers. As the increased outsourcing in the future will lead to even lower CAPEX requirements, we expect NEDAP to continue to outperform its peers in terms of the EBIT multiple in the future. Using Nedap's forecasted results for 2016, the median industry multiples lead to an implied valuation ranging between EUR 311.7m (Sales multiple) and EUR 251.7m (EBIT multiple). Nonetheless, as mentioned before, we argue that the EBIT multiple leads to the most accurate indication of the enterprise value.

Comparable Transaction Analysis

For the Comparable Transaction Analysis ('CTA'), 41 deals comparable to business units, with a focus on the three major units, are identified. Of these deals, 10 meet our requirements, such as providing revenue, EBITDA and EBIT multiples (see appendix 10 for a detailed overview of the selected deals).

Figure 17: Return on equity decomposition

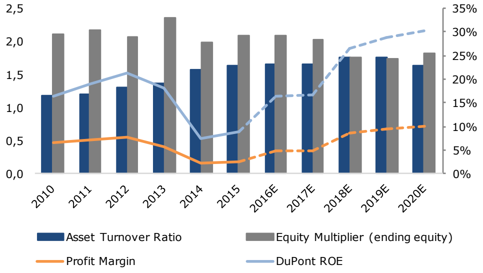


Figure 18: Cash Flow development

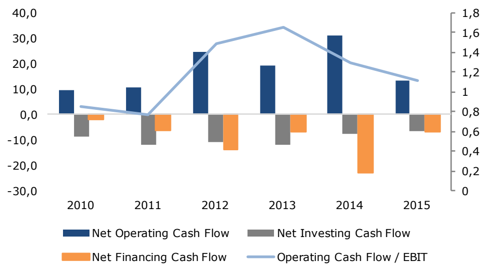


Figure 19: Net Working Capital development

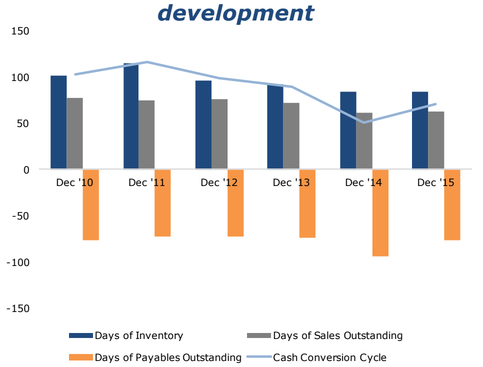


Figure 20: Net working capital split

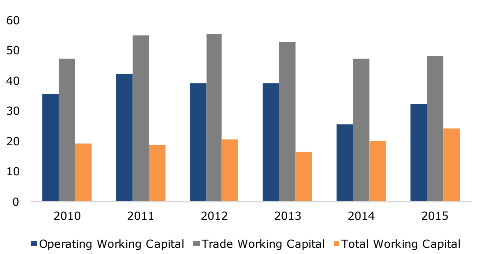
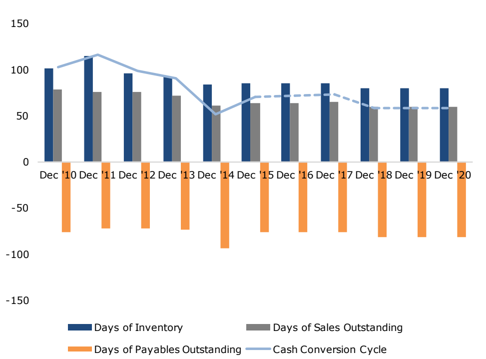


Figure 21: Net Working Capital forecast



An example of a precedent transaction is the sale of a France-based textile leasing and RFID related business unit of Tagsys, sold to Invengo Information Technology, a China-based RFID technology solutions provider, for a total deal value of EUR 6m, a revenue multiple of 0.5x, an EBITDA multiple of 5.3x and an EBIT multiple of 11.8x. The median EV of these identified deals is USD 424.3, with a revenue multiple of 2.6x, an EBIT multiple of 25.4x, and an EBITDA multiple of 27.2x. We consider these mean multiples to be rather high and not realistic for a small company like Nedap, as it leads to a range between EUR 410.6 and 673.1 million. Nonetheless, even when taking the multiples of the 25th percentile, while simultaneously consideration both sales and EBITDA multiples, the range of Nedap's value is between EUR 235.5m and EUR 397.6m. Given the broad range of the potential value of Nedap, we assume that using a CTA analysis is not credible in this case, as it would diminish the accuracy of the actual valuation of Nedap. Thus, we have decided to omit the CTA results in our overall valuation.

Overall valuation

The overall valuation of Nedap is determined as a weighted average of the DCF and the CCA valuation methods: 75% DCF and 25% CCA. As result, we obtain an enterprise value of EUR 261.7m and an equity value of EUR 236.2m. This translates to an underlying value per share of EUR 35.28, a 4.2% upside in comparison to the current share price of EUR 33.85 (17th January 2017). Based on this, we **recommend a HOLD strategy** for Nedap (see appendix 11 for a detailed calculation).

Financial Analysis

Equity Analysis

Return on equity

Nedap's return on equity has been driven by high profit margins of around 7% in recent years. In 2015, due to the mentioned structural changes and the asset impairment charge (labeled as 'unusual expenses'), the Company's profit has been at an unusual low level. The steadily increasing asset turnover was not enough to compensate for the impacted profit margin, resulting in a lower return on equity of about 8.8% compared to an adjusted average return on equity of around 18.7% in the prior five years. A slightly further decrease in profit margin is expected in the upcoming two years of restructuring, consequently succeeded by an increase to 12.0% in 2023. Furthermore, an asset turnover at high levels of about 1.6 drives prospective return on equity.

Cash Flow

Nedap has been able to generate positive operational cash flows, showing an internal cash generation of about EUR 10m already in the first half of 2016. These operational cash flows have been able to compensate recent investments in working capital, such as for example in 2010 and 2011, and further funding of growth in the asset base of the Company. In combination with negative financing cash flows, Nedap relies increasingly on internal fund generation for its growing business while continually paying out dividends. An important cash outflow for Nedap for the last few years has been R&D expenses. Due to the Company's increasing focus on delivering innovative client solutions, rather than standard manufactured products, total R&D costs grew by 55% from 2010 to 2015. One of the factors causing this increase in cash spending on R&D is that the amount Nedap capitalizes on its R&D has decreased substantially (from 2,932 EUR in 2010 to 293 EUR in 2015). Driven by a growth in revenues, the operating as well as investing activities are forecasted to increase, meeting capital expenditures needs to fund further growth. Financing cash flows are majorly influenced by the continuance of dividend payments in the period of 2016-2023, returning cash flows to investors and sticking to historical traditions.

Revenue Growth

After strong revenue growth over three consecutive years (16% in 2010; 14% in 2011; and 13% in 2012), growth took a major hit in 2013, when it declined to 1%, and did not improve significantly thereafter. In order to analyze Nedap's profitability, the Company's income statement has been adjusted for a one-time pension gain in 2014[1], which the Company had incorporated unjustly in operating income and should have been recognized in other comprehensive income. In addition, in 2014, Nedap faced an impairment charge of EUR 7.2m. In our believes, this gain on pension plans has been used to compensate the impairment charge and thus to smooth earnings. The adjusted EBIT exhibits a flat development over the years 2013 through 2015, in line with the low revenue growth. Throughout the analyzed period, Nedap has been able to maintain a stable gross margin between 15% and 18%. In the future, the Company is estimated to exhibit low growth rates of about 2% for the next two years. Following the end of the restructuring process in 2017, however, a higher growth of about 9.8% is expected based on the (1) high growth characteristics of the markets Nedap is operating in and (2) the four growth pillars. This results in a compounded average growth rate of 7.9% assumed over the forecasted horizon 2016-2023. Nedap's working capital management is in line with the industry average. With a cash conversion cycle ('CCC') of around 88 days, the Company shows a combination of competitor metrics of the most important business units. For the future, however, Nedap is expected to gain efficiency with its shift to software and services businesses, decreasing its 95 average days of inventory. This progress has already been set in motion, decreasing the CCC by on average 6% per year since 2012.

Credit Analysis

This section evaluates Nedap's capital structure and ability to meet its obligations by analyzing several liquidity and solvency metrics. The development of these metrics over the historical period and the foreseeable future is evaluated and provides an overview of the likelihood of Nedap facing financial distress. The half-year seasonality of the financials is captured through a thorough analysis of mid-year financial statements. Therefore, to maintain the comparability and avoid bias, the end-year measures should not be compared with half-year ones which are consistently weaker and could give a false picture of the situation of the Company.

[1] The excess proceeds from the matured pension fund that covered the Company's expiring defined benefit pension scheme had been recorded as operating income which distorts the performance of the underlying business.

Figure 22: Liquidity ratios

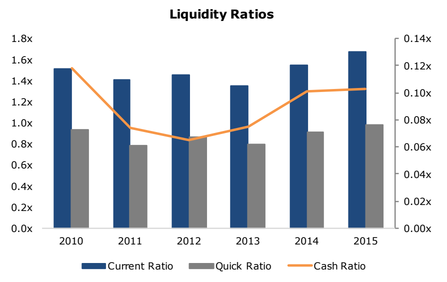


Figure 23: Solvency ratios

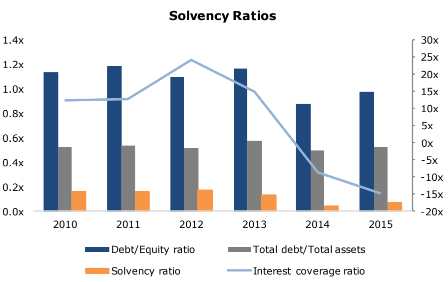


Figure 24: Asset Structure

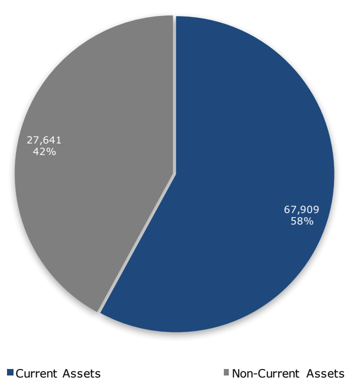


Figure 25: Funding structure

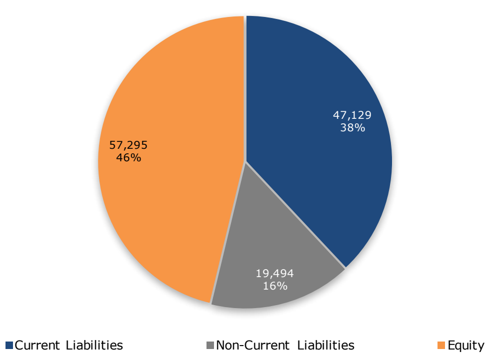
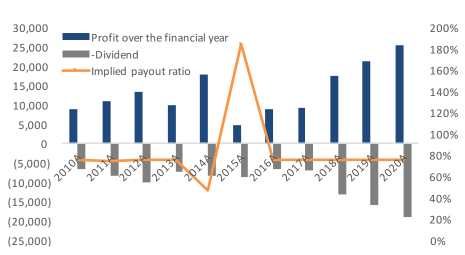


Figure 26: Payout ratio



Corporate structure

Nedap is incorporated in the Netherlands and has 12 subsidiaries in 3 continents. The Company segments its operations geographically and does not disclose the exact contribution of separate business units to the overall results. In our forecast model, we use a business unit split to perform the bottom-up valuation, but then we aggregate the numbers and evaluate the Company as a whole.

Liquidity analysis

The current, quick and cash ratios for the years 2010-2015 are shown in figure 22. The data reflect seasonality in the observed ratios. Mid-year results tend to be 10% to 20% lower than end-year statements. The tendencies observed in the development of the ratios over time indicate an improvement in the liquidity and the financial situation in the last three years. The current ratio of the Company ensures that the current liabilities could be easily covered by the current assets. On the other hand, the quick ratio lower than 1 means that Nedap's more liquid assets are not able to fully pay off its short-term liabilities. The cash ratio suggests that the cash and cash equivalents could currently cover only up to 10% of the current liabilities. The future outlooks of the Company's liquidity are positive. The current ratio will exceed 2x in 2018 and reach 2.6x in 2020.

The forecasted build up in current assets and cash in particular is a perfect indicator for possible acquisitions and self-financed investments that would facilitate the future growth of the Company. Next to inspecting the ability to meet the Company's short-term obligations, also the long-term solvency is investigated.

Solvency analysis

To understand the financial situation of Nedap better, multiple solvency metrics are examined. The Debt-to-Assets ratio has been stable around 0.55x throughout the analyzed period, indicating the consistency in the leverage strategy. In the future, however, the situation will improve as Debt-to-Assets will decrease to 0.45x. To capture the unbiased underlying economics of the Company, the EBIT is restated by deducting the effects of the pension fund and impairment and the net income is reinstated for pensions. Observations of the interest coverage ratio reveals the structural change in 2015 and 2016. The 40% decrease in interest payments is due to the fact, that during 2014, Nedap managed to decrease its current portion of long term debt by 75% and could benefit from a lower burden of debt afterwards. The upcoming years will be characterized with relatively low interest payments and increasing profitability, resulting in an interest coverage ratio ranging from 30x up to 60x, meaning that the solvency of Nedap is secure. The solvency ratio used by the Company is defined as [= (Shareholders' equity - dividends - minority interests)/(Total equity + total liabilities)]

Usage of this ratio is justified, as Nedap is highly dependent on its equity and the dividends account for a substantial part of retained earnings. Nedap's solvency ratio oscillates around 45% in both the historical results and the forecast period, being an evidence of safety and solvency. On the other hand, the analysis of solvency expressed by [= (Net income + depreciation)/Total liabilities]

maintains relatively low levels indicating the possible issues with covering the Company's debt obligations. However, it does not consider a significant contribution of Equity in the Company Balance Sheet, which will be featured further in the next paragraph.

Balance sheet structure

In the asset structure of Nedap, current assets corresponded to 50-55% of total assets in 2010-2015, yet are forecasted to grow to 65% in 2020. The change is mainly driven by the build-up in operating and excess cash. The growing liquidity of the assets gives Nedap flexibility to potentially act upon the emerging market opportunities, acquire other companies, and further develop the operations. The operations of Nedap in 2010-2016 were financed by the equity for nearly 50%, for more than 30% by current liabilities, thus, leaving 15-20% to non-current liabilities. The high reliance on the equity balance will grow further in the future, whereas the short-term liabilities are forecasted to decrease to 25%. The financing structure and moderate leverage ensures the financial stability of the firm and keeps it safe from potential financial distress. The seasonality is mainly seen in the current part of the liabilities, of which the short-term debt and current portion of long term debt are most volatile, which are usually paid off at the end of the year.

On-balance sheet obligations

The defined-benefit pension plan, administered by an insurance company, was terminated at the end of 2014. Since 2015, Nedap has a new defined-contribution pension scheme for most of its employees. On its balance sheet, Nedap currently lists no other liabilities relating to the target value of the pension fund other than the premiums paid. The main difference between these two schemes is that in the latter, the employee bears the investment risk rather than the employer. Furthermore, due to the currently low interest rate, Nedap would have to increase its liabilities account to fulfil the pension obligations of its employees. As result, the Company obtained EUR 18.7 million, previously reserved for future pension obligations. However, due to the switch to a pension-contribution plan, the pension expenses increased in 2015 and this is expected to continue in the future.

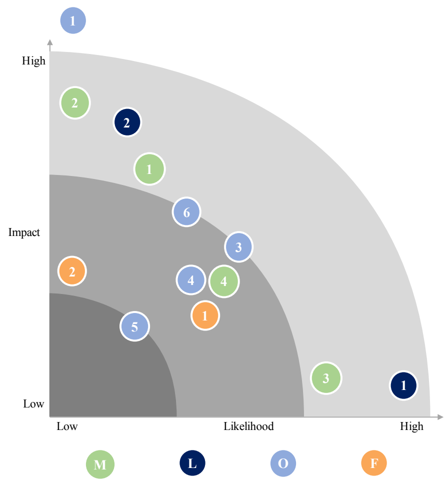
Returning cash to shareholders

Nedap returns its profits to shareholders by dividends and share repurchase programs. The payout ratio was stable and around 75 in the first 4 years to drop to 46.8 in 2014 and to skyrocket to 182.8 in 2015. Nedap's initial policy was to maintain the payout ratio around 75. In absolute terms the dividends were stable and they were paid out to shareholders despite the fluctuations observed in net income.

Investment Risks

Due to the innovative nature of its operations and simultaneous new ventures in different markets, Nedap exhibits substantial risks on the business side. To mitigate the overall riskiness, Nedap's CFO emphasizes his strong preference for a conservative balance sheet and prudent financing structure. Following from the restructuring process started in 2014, Nedap's balance sheet shows little intangibles prone for impairments and currently has no debt covenants to adhere to, supporting the low financial risk claim. Further investment risks in detail:

Figure 27: Risk matrix



1. *Market Risks*

(M1) Vertical integration by competitors – Moderate Likelihood, High Impact

Due to its outsourcing effort and close interactions with clients, Nedap's suppliers or clients might integrate the functions performed by the Company into their own portfolios.

Mitigant: Nedap adds value by bundling products and services, which is difficult to copy for suppliers and clients alike.

Mitigant: Through its broad portfolio, the Company is able to share best practices across business units and industries.

(M2) Reputation loss – Low Likelihood, High Impact

Reputational damage would have a detrimental impact on the security division, which is assumed to become Nedap's key business unit going forward.

Mitigant: Nedap needs to invest in further establishing best practices. Given the background in the security business of the CEO, a relevant focus is given.

(M3) Commoditization of products and services – High Likelihood, Low Impact

The products that Nedap offers will likely become cheap to produce and will be offered by competitors at low prices.

Mitigant: The current restructuring process decreases Nedap's dependency on products

(M4) Stagnating growth in markets of Nedap's customers – Moderate Likelihood, Moderate Impact

Decreasing revenues for the brick-and-mortar business in retail and shift towards online business will have a declining impact on RFID technology

Decreasing milk price will result in declining demand for Nedap's cattle division

Mitigant: Nedap successfully used synergies to enter new sectors in the past and will continue so in case of declining demand of one sector

2. *Legal and Compliance Risks*

(L1) Intellectual property rights – High Likelihood, Low Impact

Mitigant: Nedap uses simple products for tailored services. Therefore, the products by themselves do not add substantial value

Mitigant: Nedap successfully patented a device for determining movements of an animal, publicized on the 8th of December 2016

(L2) Business integrity and ethics – Low Likelihood, High Impact

Nedap is vulnerable to employees leaking strategic information to competitors.

Mitigant: The family business-like structure lowers the risk of employees leaking critical information

Mitigant: Given the strong ties to customers, competitors would not be able to easily capitalize on leaked information

3. *Operational Risks*

(O1) Future obsolescence of RFID technology and software – Low Likelihood, High Impact

All business units are based on RFID technology. A new alternative, if accepted by the market, would be detrimental to Nedap's success in all its business units

(O2) Data protection and cyber security – Low Likelihood, High Impact

Data leaks and hacker attacks on Nedap's servers might lead to crucial information being released to the public and available to competitors. This would be detrimental to Nedap's operations.

Mitigant: According to management, the Company owns the data but does not store it on its own servers. It uses cloud services for data storage

(O3) Restructuring measures – Moderate Likelihood, Moderate Impact

A successful restructuring effort is crucial for the firm´s peojwcted development post 2017. Mitigant: the CFO's background in restructuring services and the CEO's thorough knowledge of the business provide the relevant competencies to manage the process

(O4) Major contracts – Moderate Likelihood, Moderate Impact

The loss of business from major clients might have a significant impact on single business units' and the entire Company's performance.

Mitigant: No single client at any business unit makes up for more than 10% of revenues of that single unit

(O5) Sourcing and supply management – Low Likelihood, Low Impact

Due to the outsourcing of production, Nedap disintegrates a substantial part of its upstream value chain.

Mitigant: Product sourcing is being distributed over five suppliers

(O6) Talent management (attraction and retention) – Moderate Likelihood, Moderate Impact

Given the Company's small size, lack of brand recognition and location in the rural North-East of the Netherlands, talent attraction and retention levers are limited.

Mitigant: Family-business structure and culture has led to high retention rates in the past and there are no indications that this might change in the near future.

4. *Financial Risk*

(F1) Exchange Rate – Moderate Likelihood, Moderate Impact

Fluctuations in exchange rates, for example in the EUR/USD rate, might affect revenues of the several divisions of Nedap.

Mitigant: Nedap limits the size of transactions made in foreign currencies, resulting in net US dollar transactions not exceeding 4% of revenues in 2015

(F2) Changes in Tax regulations – Low Likelihood, Moderate Impact

With operations in Europe, Asia and America, Nedap is subject to several tax jurisdictions. Changes in the national tax rates can impact future earnings.

Appendix 1: Regression

Model

We have regressed 5 years of weekly data including AEX stock index, Dairy, Agriculture and US Livestock prices and European retail index on Nedap share price. The table below summarizes the results of the analysis.

OLS, using observations 2012-01-13:2016-12-16 (T = 258)
Dependent variable: ld_Nedap

	Coefficient	*Std. Error*	*t-ratio*	*p-value*	
const	0.0010276	0.00133733	0.7684	0.4430	
d_1_AEX_2	0.227672	0.124021	1.8357	0.0676	*
d_1_AEX_4	0.137738	0.089744	1.5348	0.1261	
d_Dairy_39	0.76376	0.209209	3.6507	0.0003	***
d_Agriculture_2	−1.25679e-05	7.16695e-05	−0.1754	0.8609	
d_Agriculture_4	−2.68754e-05	7.04195e-05	−0.3816	0.7030	
d_EURetail_2	0.000788448	0.0037943	0.2078	0.8356	
d_USLivestock_35	−0.00397014	0.00222255	−1.7863	0.0753	*
d_USLivestock_52	−0.00625394	0.00231772	−2.6983	0.0074	***

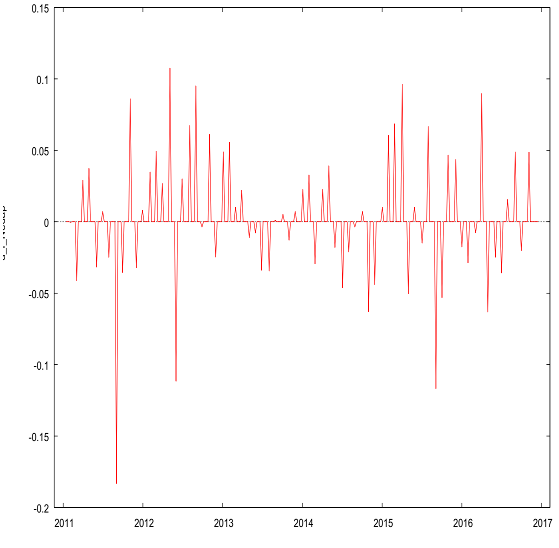
Mean dependent var	0.001759	S.D. dependent var	0.022912
Sum squared resid	0.111090	S.E. of regression	0.021122
R-squared	0.176583	Adjusted R-squared	0.150128
F(8, 249)	6.674814	P-value(F)	6.50e-08
Log-likelihood	633.7122	Akaike criterion	−1249.424
Schwarz criterion	−1217.448	Hannan-Quinn	−1236.566
rho	−0.021809	Durbin-Watson	2.043445

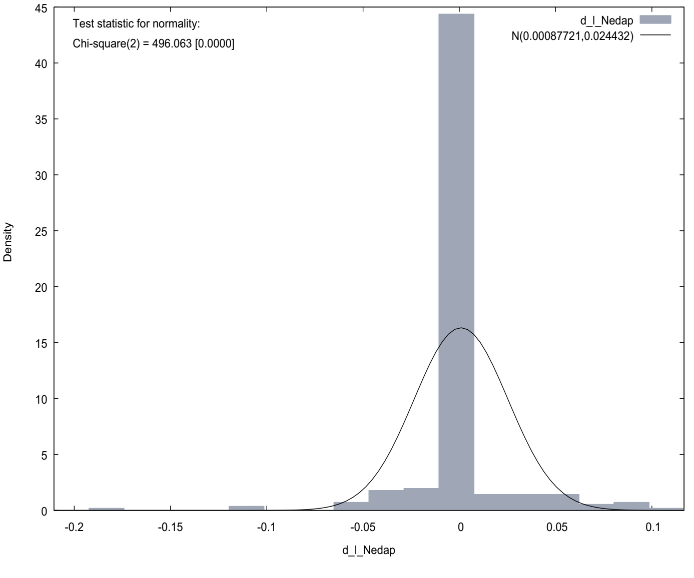
Variables

Below we present data time series used in the regression.

Nedap (log-returns)

Stationary time series





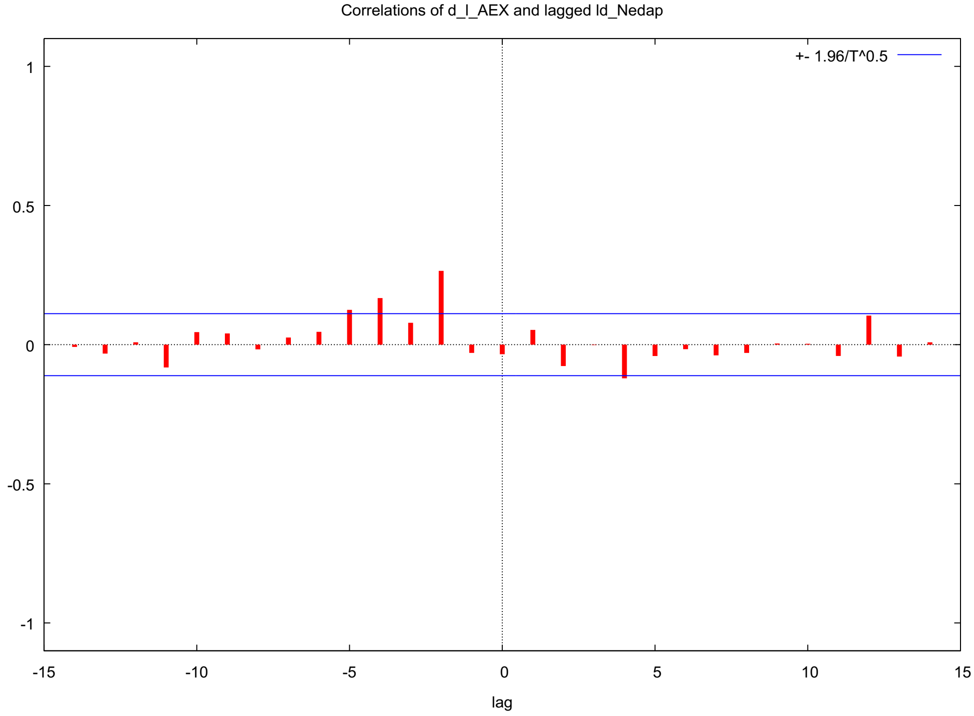
Augmented Dickey-Fuller test for d_l_Nedap
including 0 lags of (1-L)d_l_Nedap
(max was 15, criterion AIC)
sample size 309
unit-root null hypothesis: a = 1

test with constant
model: (1-L)y = b0 + (a-1)*y(-1) + e
estimated value of (a - 1): -1.0013
test statistic: tau_c(1) = -17.5442
p-value 5.94e-031
1st-order autocorrelation coeff. for e: -0.000

with constant and trend
model: (1-L)y = b0 + b1*t + (a-1)*y(-1) + e
estimated value of (a - 1): -1.00131
test statistic: tau_ct(1) = -17.5158
p-value 8.543e-034
1st-order autocorrelation coeff. for e: -0.000

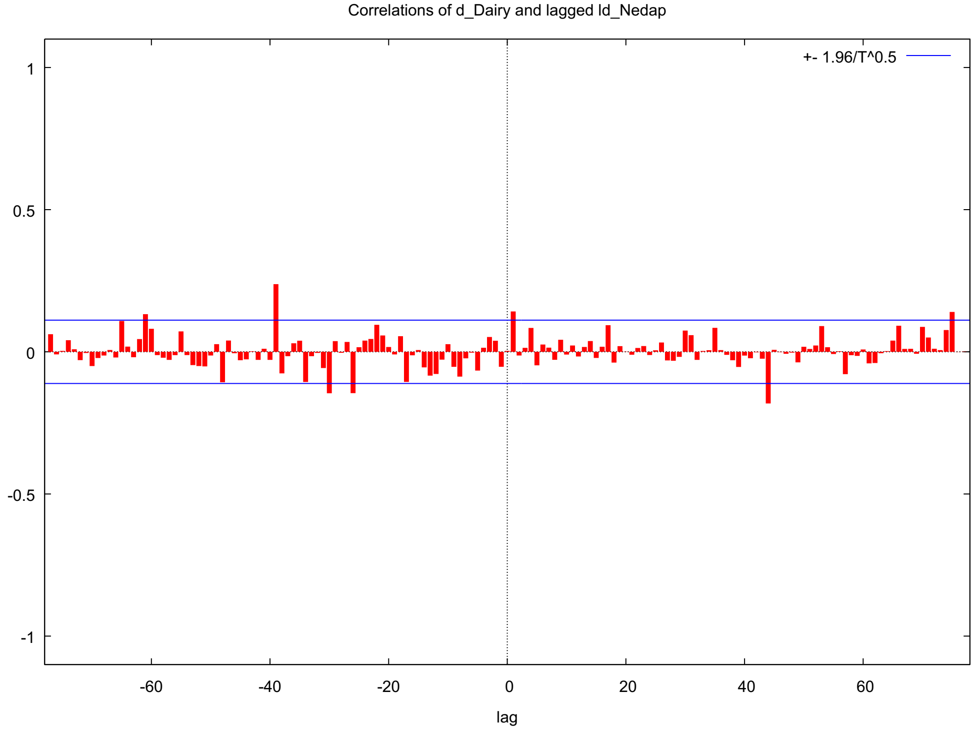
Lags

Further we analyse cross-correlations between underlying indices, commodities and Nedap share price. Below we present statistically significant lags of the chosen variables.



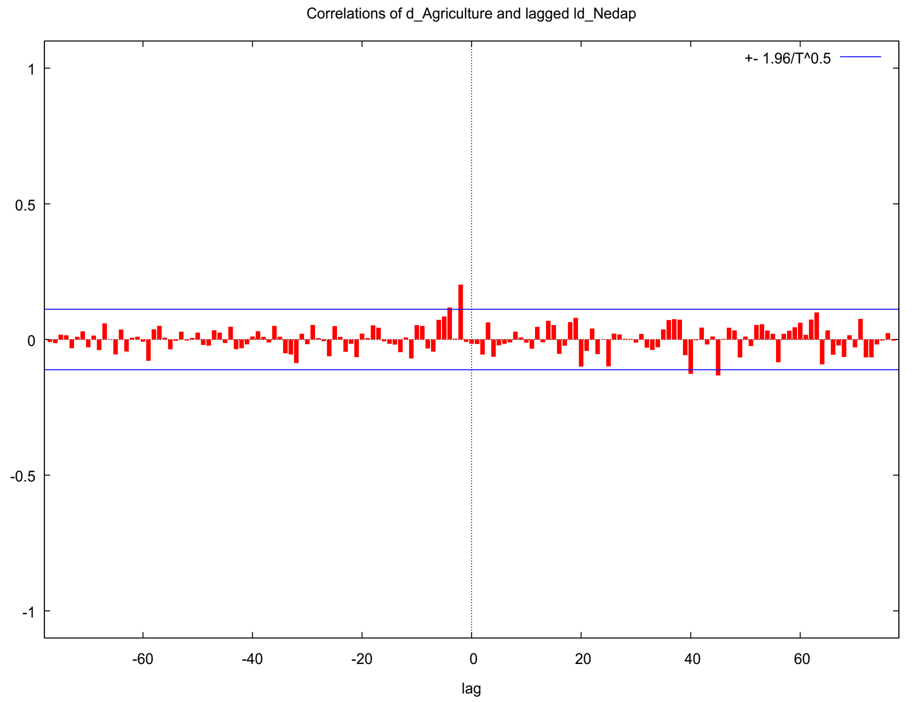
Cross-correlation function for d_l_AEX and ld_Nedap

LAG	XCF
-4	0.1674 ***
-2	0.2652 ***



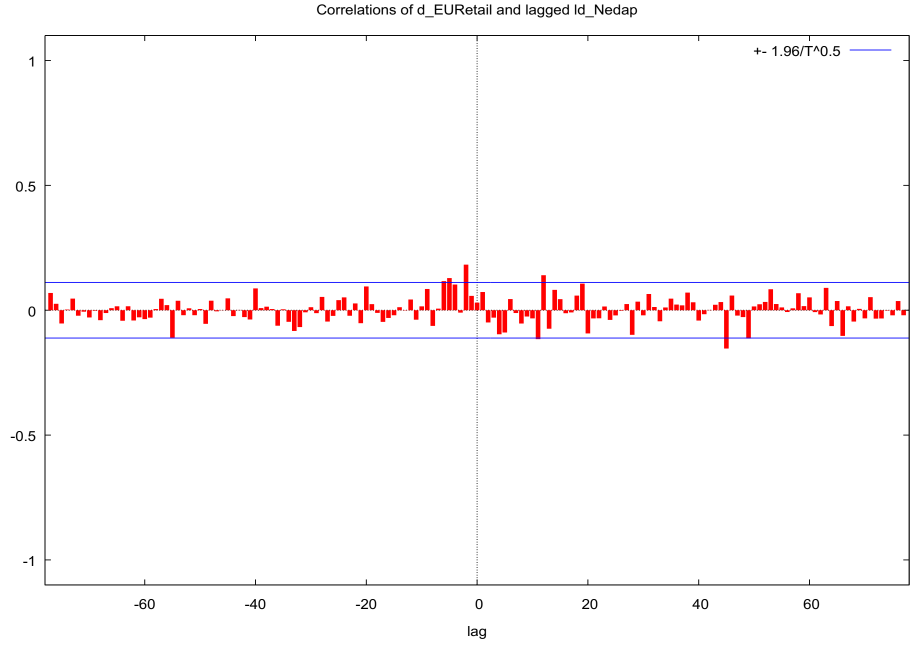
Cross-correlation function for d_Dairy and ld_Nedap

LAG	XCF
-39	0.2380 ***



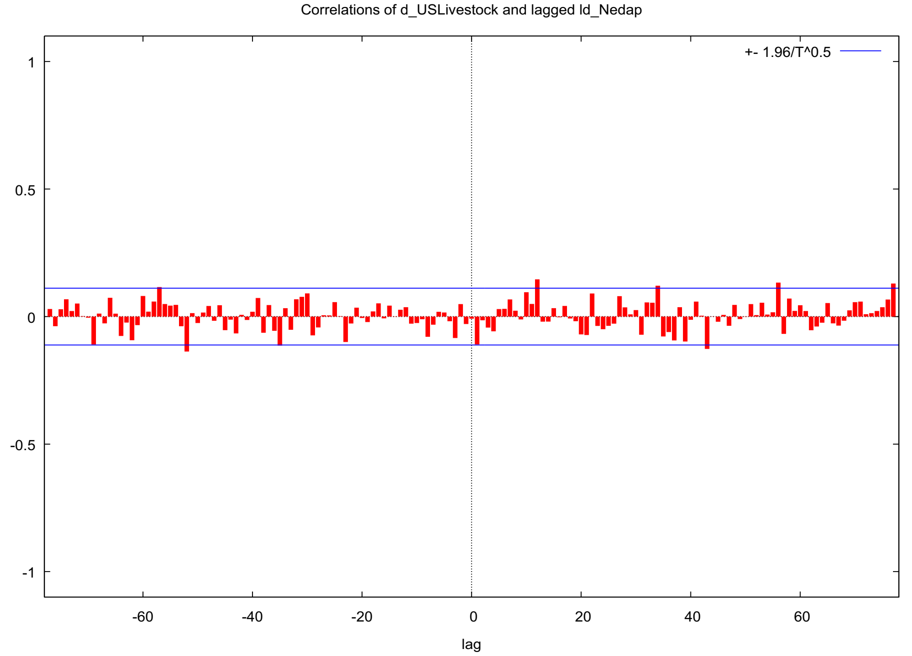
Cross-correlation function for d_Agriculture and ld_Nedap

LAG	XCF
-4	0.1179 **
-2	0.2024 ***



Cross-correlation function for d_EURetail and ld_Nedap

LAG	XCF
-2	0.1826 ***



Cross-correlation function for d_USLivestock and ld_Nedap

LAG	XCF
-52	-0.1370 **
-35	-0.1137 **

Appendix 2: WACC calculation

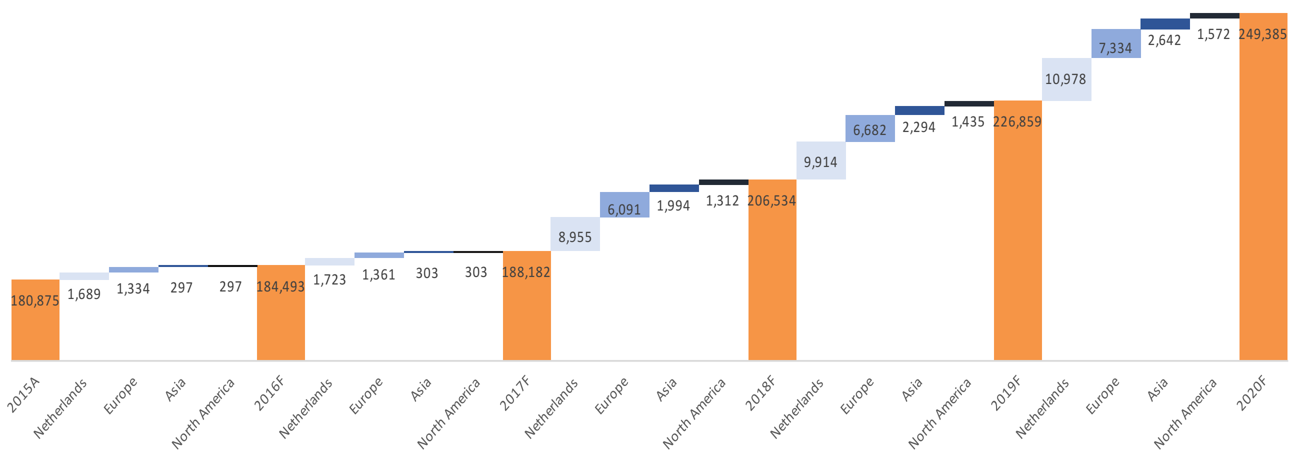
Cost of Equity	
Risk-Free Rate (German historical bond yield)	2.2%
Size premium (Ibbotson)	4.1%
Equity risk premium (Country Default Spreads and Risk Premiums by Stern NYC)	6.5%
Utilized Beta (relevered)	0.96
Cost of equity	**12.6%**

Cost of debt	
Risk-Free Rate (German historical bond yield)	2.2%
Debt Spread (Spread over risk-free rate for rating category Ba)	3.9%
Cost of debt pre-tax	**6.1%**
Tax (Dutch)	25.0%
Cost of debt post-tax	**4.5%**

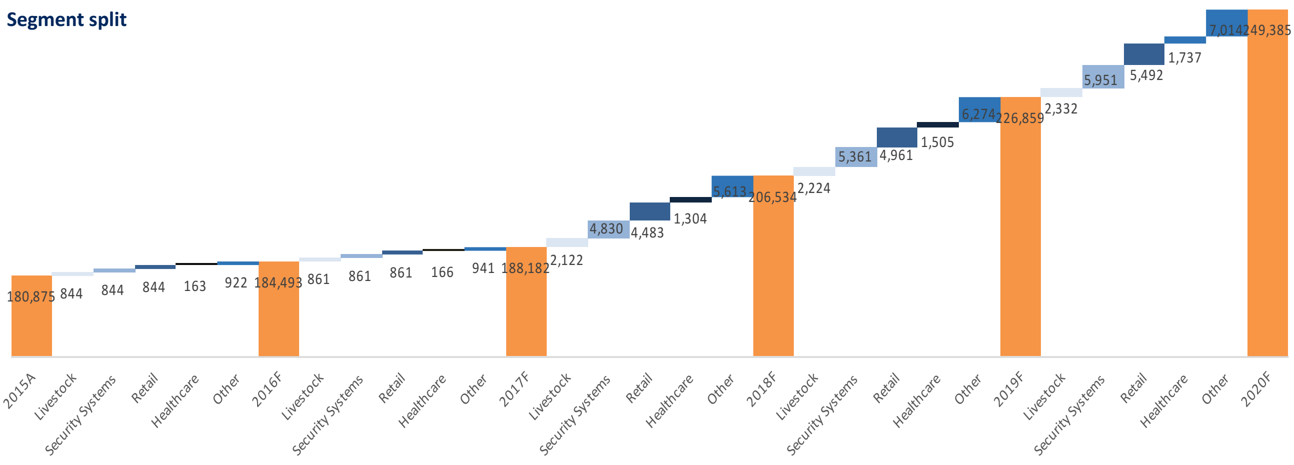
WACC	
Cost of equity	
Cost of debt (post-tax)	12.6%
Equity ratio	85.0%
Debt ratio	15.0%
Tax rate	25.0%
WACC	**11.4%**

Appendix 3: Revenue development

Geographic split



Segment split



Appendix 4: Discounted Cash Flow | Historicals

	Historical					
	2010A	*2011A*	*2012A*	*2013A*	*2014A*	*2015A*
EBITDA	**18,478**	**21,948**	**25,586**	**21,767**	**23,003**	**22,187**
YoY - Growth	*n.a.*	*18.8%*	*16.6%*	*(14.9%)*	*5.7%*	*(3.5%)*
Depreciation	6,453	6,929	7,465	7,930	8,441	8,212
Amortization	1,026	1,134	1,739	2,086	2,116	1,383
EBIT	**10,999**	**13,885**	**16,382**	**11,751**	**12,446**	**12,592**
YoY - Growth	*n.a.*	*26.2%*	*18.0%*	*(28.3%)*	*5.9%*	*1.2%*
Opearting taxe expense	2,780	3,450	4,064	2,914	3,099	3,108
NOPLAT	**8,219**	**10,435**	**12,318**	**8,837**	**9,347**	**9,484**
Depreciation	6,453	6,929	7,465	7,930	8,441	8,212
Amortization	1,026	1,134	1,739	2,086	2,116	1,383
Restructuring costs	0	0	0	0	1,422	7,531
Non-recurring pension results	0	0	0	0	(18,712)	0
Working Capital	**34,435**	**42,287**	**42,629**	**38,513**	**27,393**	**34,359**
Inventories	21,635	28,142	26,810	25,811	23,437	24,728
Income tax receivables	1,489	1,018	28	4	973	390
Trade and other receivables	28,533	31,342	36,013	34,267	29,444	31,106
Operating Cash	2,671	3,047	3,437	3,474	3,544	3,618
Income tax payable	63	195	444	1,552	407	74
Taxation and social security contributions	3,470	3,040	2,984	2,757	3,213	2,854
Trade and other payables	16,360	18,027	20,231	20,734	26,385	22,555
Delta NWC	**n.a.**	**7,852**	**343**	**(4,117)**	**(11,120)**	**6,966**
CapEx						
CapEx of tangible assets	5,953	9,038	8,278	10,095	5,659	5,423
CapEx of intangible assets	2,554	3,075	2,757	1,732	(2,609)	243
Other Non-Cash Charges						
Increase in deferred tax liabilities	n.a.	1,406	(601)	(1,986)	(338)	(895)
Increase in guarantee provisions	n.a.	87	2,659	(2,718)	730	603
Free Cash flow	**n.a.**	**26**	**12,202**	**6,438**	**45,656**	**(1,376)**

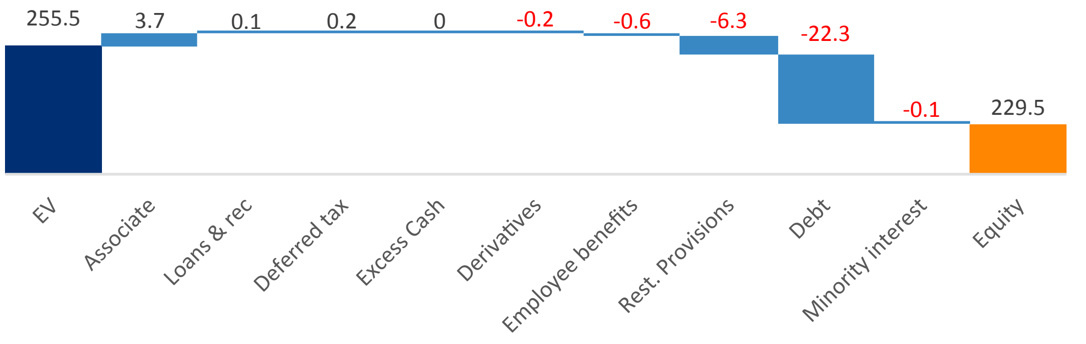
Appendix 5: Discounted Cash Flow | Forecast

	Forecast				
	2016E	*2017E*	*2018E*	*2019E*	*2020E*
EBITDA	**24,777**	**22,731**	**31,132**	**35,885**	**41,296**
YoY - Growth	*11.7%*	*(8.3%)*	*37.0%*	*15.3%*	*15.1%*
Depreciation	7,503	7,099	6,874	6,740	6,723
Amortization	1,111	1,242	1,287	1,306	1,300
EBIT	**16,163**	**14,390**	**22,971**	**27,840**	**33,273**
YoY - Growth	*28.4%*	*(11.0%)*	*59.6%*	*21.2%*	*19.5%*
Opearting taxe expense	4,041	3,598	5,743	6,960	8,318
NOPLAT	**12,122**	**10,793**	**17,229**	**20,880**	**24,954**
Depreciation	7,503	7,099	6,874	6,740	6,723
Amortization	1,111	1,242	1,287	1,306	1,300
Restructuring costs	5,000	2,500	0	0	0
Non-recurring pension results	0	0	0	0	0
Working Capital	**35,744**	**36,974**	**34,564**	**37,964**	**41,732**
Inventories	24,307	24,793	25,033	27,553	30,347
Income tax receivables	553	565	620	681	748
Trade and other receivables	32,349	33,512	33,951	37,292	40,995
Operating Cash	3,690	3,764	4,131	4,537	4,988
Income tax payable	184	188	207	227	249
Taxation and social security contributions	2,952	3,011	3,305	3,630	3,990
Trade and other payables	22,019	22,459	25,659	28,242	31,105
Delta NWC	**1,385**	**1,230**	**(2,410)**	**3,400**	**3,768**
CapEx					
CapEx of tangible assets	6,170	6,761	7,074	7,678	7,870
CapEx of intangible assets	1,730	1,505	1,446	1,361	1,261
Other Non-Cash Charges					
Increase in deferred tax liabilities	20	20	20	21	21
Increase in guarantee provisions	41	42	210	233	258
Free Cash flow	**6,512**	**7,199**	**19,510**	**16,740**	**20,357**

Appendix 6: Discounted Cash Flow | Extrapolation

	Extrapolation							
	2021E	*2022E*	*2023E*	*2024E*	*2025E*	*2026E*	*2027E*	*TV*
EBITDA	**46,670**	**51,979**	**57,217**	**62,632**	**68,488**	**73,926**	**78,966**	
YoY - Growth	*13.0%*	*11.4%*	*10.1%*	*9.5%*	*9.3%*	*7.9%*	*6.8%*	
Depreciation	6,731	6,749	6,779	6,819	6,861	7,106	7,356	
Amortization	1,274	1,277	1,303	1,344	1,395	1,476	1,559	
EBIT	**38,665**	**43,953**	**49,136**	**54,469**	**60,232**	**65,344**	**70,051**	
YoY - Growth	*16.2%*	*13.7%*	*11.8%*	*10.9%*	*10.6%*	*8.5%*	*7.2%*	
Opearting taxe expense	9,666	10,988	12,284	13,617	15,058	16,336	17,513	
NOPLAT	**28,999**	**32,965**	**36,852**	**40,852**	**45,174**	**49,008**	**52,538**	**53,274**
Depreciation	6,731	6,749	6,779	6,819	6,861	7,106	7,356	
Amortization	1,274	1,277	1,303	1,344	1,395	1,476	1,559	
Restructuring costs	0	0	0	0	0	0	0	
Non-recurring pension results	0	0	0	0	0	0	0	
Working Capital	**41,276**	**44,507**	**47,620**	**50,607**	**53,468**	**56,205**	**58,826**	
Inventories	31,005	33,480	35,864	38,152	40,343	42,440	44,447	
Income tax receivables	814	878	939	999	1,055	1,109	1,161	
Trade and other receivables	44,608	48,108	51,479	54,715	57,813	60,777	63,615	
Operating Cash	5,427	5,853	6,263	6,657	7,034	7,395	7,740	
Income tax payable	271	293	313	333	352	370	387	
Taxation and social security contributions	4,342	4,683	5,011	5,326	5,627	5,916	6,192	
Trade and other payables	35,966	38,837	41,603	44,257	46,798	49,230	51,558	
Delta NWC	**(457)**	**3,232**	**3,113**	**2,987**	**2,861**	**2,737**	**2,620**	
CapEx								
CapEx of tangible assets	8,008	8,171	8,361	8,497	8,615	8,888	9,164	
CapEx of intangible assets	1,373	1,480	1,584	1,684	1,779	1,870	1,957	
Other Non-Cash Charges								
Increase in deferred tax liabilities	22	22	22	23	23	24	24	
Increase in guarantee provisions	252	244	235	225	216	206	198	
Free Cash flow	**28,353**	**28,374**	**32,133**	**36,096**	**40,414**	**44,325**	**47,933**	**462,978**

Appendix 7: Discounted Cash Flow | EV to equity bridge



Equity value	**246,090**
Adjustments for non-ordinary equity instruments	*0*
Value of ordinary shares	**246,090**
Number of shares outstanding (floating) in '000	*6,693*
Value per share	**36.77**
Current share price	33.85
Potential upside	**8.6%**

Appendix 8: Discounted Cash Flow Analysis

	Worst Case	Base Case	Best Case
Annual cost reduction	2.5m	4m	5m
Enterprise value	229.4m	271.6m	301.1m
Value per share	30.46	36.77	41.03
Potential upside/downside	-8.0%	11.1%	23.9%

Appendix 9: Comparable Companies Analysis

2015 (in EURm)	Enterprise Value	Revenue Multiple	EBITDA Multiple	EBIT Multiple
Nedap	**€ 245.50**	**1.4x**	**11.1x**	**19.5x**
Livestock				
Better Online Solutions	€ 7.38	0.3x	9.2x	11.9x
Security systems				
Securitas	€ 6,540.00	0.8x	12.0x	16.2x
G4S	€ 6,574.00	0.7x	10.6x	17.3x
Assa Abloy	€ 21,996.00	3.0x	16.9x	19.2x
Average	**€ 8,789.25**	**2.5x**	**19.7x**	**15.1x**
Retail				
Avery Dennison	€ 7,115.00	1.3x	11.0x	14.9x
Checkpoint Systems	€ 250.20	0.5x	6.1x	13.8x
Average	**€ 3,682.60**	**0.9x**	**8.6x**	**14.4x**
Miscellaneous				
Zebra Technologies Corporation	€ 6,717.00	2.1x	38.6x	14.5x
3M	€ 112,300.00	4.1x	15.0x	18.1x
Average	**€ 59,508.50**	**3.1x**	**26.8x**	**16.3x**
Overal				
25th percentile	€ 4,967.55	0.6x	10.2x	14.3x
Average	€ 20,187.45	1.6x	14.9x	15.8x
Median	**€ 6,645.50**	**1.0x**	**11.5x**	**15.6x**
75th percentile	€ 10,835.25	2.3x	15.5x	17.5x

Appendix 10: Comparable Transactions Analysis

Date	Target	Buyer	Geography	Enterprise Value EURm	Revenue Multiple	EBITDA Multiple	EBIT Multiple
Nedap				**€ 245.50**	**1.4x**	**11.1x**	**19.5x**
13/05/2016	Checkpoint Systems	CCL Industries		€ 386.69		43.3x	
Announced	Tagsys (Textile leasing and RFID related business)	Invengo Information Technology		€ 6.00	0.5x	5.3x	11.8x
21/07/2015	Experian FootFall	Tyco Retail Solutions		€ 55.36	7.9x	18.7x	29.3x
13/07/2012	LaserBand	Zebra Technologies		€ 47.67	2.4x		
04/04/2016	Atmel	Microchip Technology		€ 3,008.56	2.8x	31.0x	64.6x
Announced	Atmel	Dialog Semiconductor		€ 3,741.57	3.0x	35.5x	71.5x
06/10/2015	Fundamenture	Valid Soluciones Tecnologicas		€ 122.77	1.9x	13.4x	14.5x
Announced	3M Cogent (Document Reader and Secure Materials Businesses)	Gemalto		€ 792.54	4.0x		14.7x
08/01/2015	SafeNet	Gemalto		€ 664.05	2.6x		25.4x
17/09/2013	Intermec Technologies	Honeywell International		€ 461.94	0.7x	27.2x	
			25th prcntl	**€ 72.22**	**1.9x**	**16.0x**	**14.6x**
			Average	€ 928.71	2.9x	24.9x	33.1x
			Median	€ 424.31	2.6x	27.2x	25.4x
			75th prcntl	€ 760.42	3.0x	33.2x	46.9x

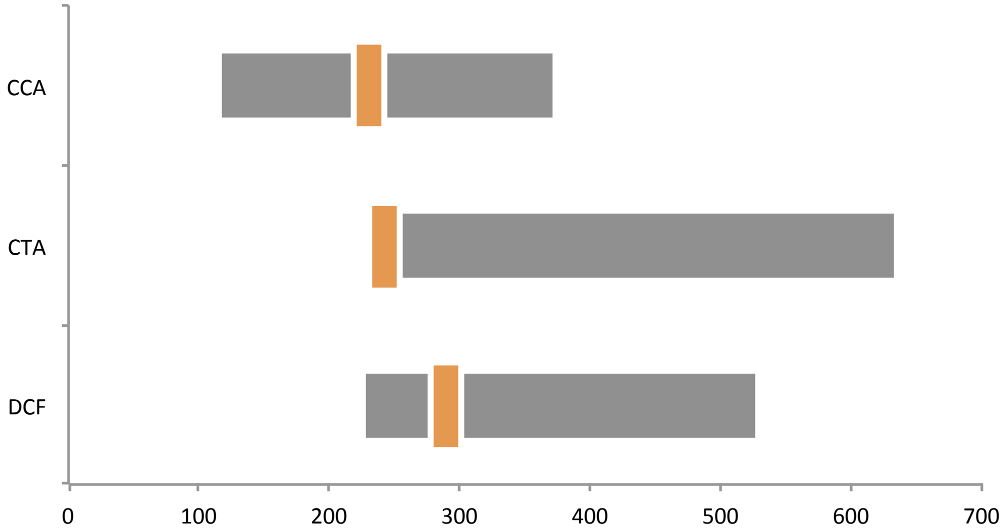
Appendix 11: Overall Valuation

CCA (25%)			
(EURm) 2016	Sales	EBITDA	EBIT
Nedap figures	€ 184,49	€ 24,78	€ 16,16
25th percentile	**€ 118,00**	**€ 253,53**	**€ 231,87**
Valuation	€ 191,95	€ 284,39	€ 251,69
75th percentile	€ 424,01	€ 383,47	€ 282,95

CTA (0%)			
(EURm) 2016	Sales	EBITDA	EBIT
Nedap figures	€ 184,49	€ 24,78	€ 16,16
25th percentile	**€ 352,86**	**€ 397,58**	**€ 235,52**
Valuation	€ 486,77	€ 673,09	€ 410,61
75th percentile	€ 552,89	€ 823,44	€ 758,73

DCF (75%)			
(EURm) 2016	Worst	Base	Optimistic
Valuation	**€ 229,39**	**€ 271,61**	**€ 300,11**

Average valuation			**€ 261,67**



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