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# Keyware

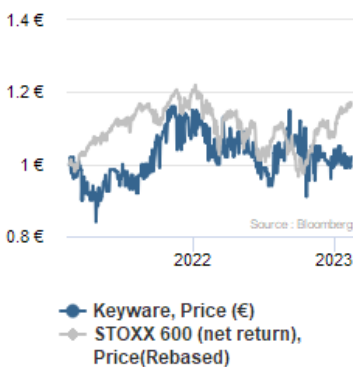
## The soft bet is paying off

Opinion	<b>Buy</b>
Upside (%)	114
Price (€)	1.02
Target Price (€)	2.18
Bloomberg Code	KEYW BB
Market Cap (€M)	24.0
Enterprise Value (€th)	23,160
Momentum	UNFAVORABLE
Sustainability	4/10
Credit Risk	BB→

KEY DATA	12/20A	12/21A	12/22E	12/23E	12/24E
Adjusted P/E (x)	9.64	8.22	11.4	8.56	8.00
Dividend yield (%)	0.00	0.00	0.00	0.00	0.00
EV/EBITDA(R) (x)	5.79	5.66	5.78	4.28	3.67
Adjusted EPS (€)	0.08	0.12	0.09	0.12	0.13
Growth in EPS (%)	32.7	56.5	-25.7	31.4	7.01
Dividend (€)	0.00	0.00	0.00	0.00	0.00
Sales (€th)	12,961	17,689	19,539	21,662	22,660
EBIT margin (%)	-3.08	0.67	2.26	3.74	4.18
Attributable net profit (€th)	66.0	478	635	1,006	1,203
ROE (after tax) (%)	0.24	1.73	2.14	3.05	3.34
Gearing (%)	13.4	10.5	5.26	0.18	-4.94

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### Conflicts of interest

Corporate broking	No
Trading in corporate shares	No
Analyst ownership	No
Advice to corporate	No
Research paid for by corporate	Yes
Corporate access	No
Brokerage activity at AlphaValue	No
Client of AlphaValue Research	No

Detailed financials at the end of this report

**Key Ratios**

		12/21A	12/22E	12/23E	12/24E
Adjusted P/E	x	8.22	11.4	8.56	8.00
EV/EBITDA	x	5.66	5.78	4.28	3.67
P/Book	x	0.85	0.78	0.70	0.64
Dividend yield	%	0.00	0.00	0.00	0.00
Free Cash Flow Yield	%	5.34	5.42	7.72	8.27
ROE (after tax)	%	1.73	2.14	3.05	3.34
ROCE	%	6.55	5.10	6.56	6.83
Net debt/EBITDA	x	0.50	0.23	-0.16	-0.50

**Consolidated P&L**

		12/21A	12/22E	12/23E	12/24E
Sales	€th	17,689	19,539	21,662	22,660
EBITDA	€th	4,610	4,400	5,407	5,769
Underlying operating profit	€th	2,835	2,447	3,241	3,503
Operating profit (EBIT)	€th	441	947	1,441	1,703
Net financial expenses	€th	-106	-100	-100	-100
Pre-tax profit before exceptional items	€th	335	847	1,341	1,603
Corporate tax	€th	143	-212	-335	-401
Attributable net profit	€th	478	635	1,006	1,203
Adjusted attributable net profit	€th	2,872	2,135	2,806	3,003

**Cashflow Statement**

		12/21A	12/22E	12/23E	12/24E
Total operating cash flows	€th	2,235	2,597	3,254	3,446
Capital expenditure	€th	-870	-1,172	-1,300	-1,360
Total investment flows	€th	-870	-1,172	-1,300	-1,360
Dividends (parent company)	€th	0.00	0.00	0.00	0.00
New shareholders' equity	€th	0.00	0.00	0.00	0.00
Total financial flows	€th	-1,408	-433	-383	-267
Change in net debt position	€th	1,259	1,330	1,860	1,992
Free cash flow (pre div.)	€th	1,259	1,325	1,854	1,986

**Balance Sheet**

		12/21A	12/22E	12/23E	12/24E
Goodwill	€th	7,762	8,041	8,041	8,041
Total intangible	€th	12,212	13,838	13,838	13,838
Tangible fixed assets	€th	1,209	2,177	2,177	2,177
WCR	€th	16,694	17,486	18,504	19,827
Total assets (net of short term liabilities)	€th	33,358	34,650	35,668	36,991
Ordinary shareholders' equity (group share)	€th	27,892	31,499	34,373	37,684
Provisions for pensions	€th		158	162	166
Net debt / (cash)	€th	2,323	993	-867	-2,858
Total liabilities and shareholders' equity	€th	33,358	34,650	35,668	36,991

**Per Share Data**

		12/21A	12/22E	12/23E	12/24E
Adjusted EPS (bfr goodwill amort. & dil.)	€	0.12	0.09	0.12	0.13
Net dividend per share	€	0.00	0.00	0.00	0.00
Free cash flow per share	€	0.05	0.06	0.08	0.08
Book value per share	€	1.18	1.34	1.46	1.60
Number of diluted shares (average)	Th	23,544	23,544	23,544	23,544

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## Businesses & Trends

Keyware, created in 1996 and listed since 2000, is an independent Network Service Provider operating almost entirely in Belgium. The company provides electronic payment solutions and associated transaction management. The group currently operates in three divisions: the terminal rentals/sales division, the authorisations/transactions division and the software division, and it is on the latter that Keyware has decided to refocus its strategy. In 2017, the company started its transformation from a hardware provider to a software developer, as the terminal payment division was declining. This transformation began with the acquisitions of Magellan and EasyOrder, both involved in growing markets.

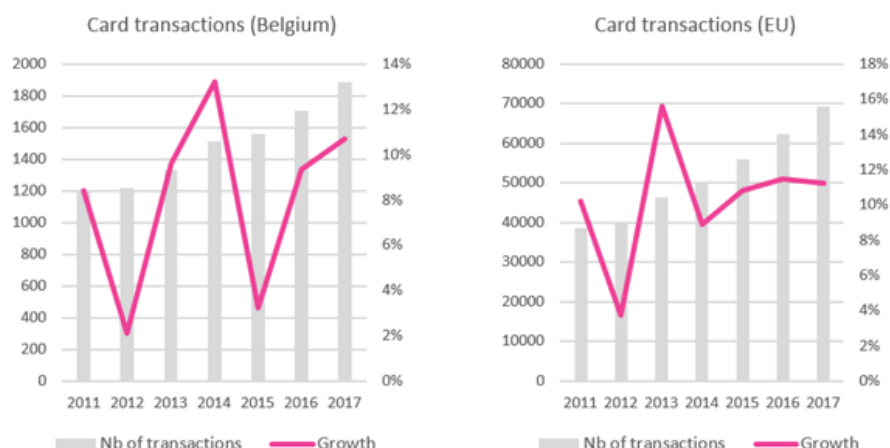
### The non-cash payment market

Keyware can be considered as the tip of an iceberg, as one of its activities is to provide the entry point (namely the payment terminal) to a complex chain of players in the ecosystem of the electronic transaction industry (a detailed explanation of the processing of an electronic transaction is provided in the Worth Knowing section). The dynamism of this industry is a deep-rooted trend in the European Union and particularly in Belgium (but with the notable exception of Germany, which still favours cash transactions). Certain factors are driving up the number of electronic transactions.

According to the 2020 ECB Payment Statistics report, over 2016-2020, the number of non-cash transactions (including credit transfers, direct debits, card payments, cheques, e-money and other payment services) in the EU grew at a CAGR of 6.6% and the number of transactions reached 102bn in 2020. Of these non-cash transactions and over the same period, the share of card payments increased in the EU by more than 6% to reach a growth of 50%. Belgians rank no. 10 in the EU in terms of card transactions per capita.

As mentioned above, the increase in the number of card transactions is likely to be fuelled by several drivers, amongst which are:

- the rise of new types of payment solutions, such as smartphones and NFC (through electronic wallets like Apple Pay) or electronic meal vouchers,
- the dynamism of e-commerce (+15% in Europe in 2020), and
- the increasing restrictions on the use of cash in transactions as a way of fighting the shadow economy (a max of €1,000 in France since 2015, and €3,000 in Belgium since 2014).



### The POS terminals market

Point Of Sales (POS) terminals are the interface required to process electronic transactions: debit and credit cards, vouchers, coupons, smartphones...

The global market is expected to be worth \$181.2bn by 2030 (according to Grand View Research) and the worldwide CAGR for 2020-30 is expected to be 8.5%. Some drivers allow a continuity of the activity with the renewal of the device at the end of a terminal's life, such as:

- the obsolescence of the terminal regarding security standards (called PCI-DSS), which are regularly upgraded,
- the rise of new technologies which leads to the upgrade, to accept new payment methods (NFC, vouchers...) or to integrate new functionalities (automated reporting, friendly interface, business apps...), and
- the introduction of new devices, such as the mPOS, which brings more versatility by being able to function away from the merchant's traditional counter-top.

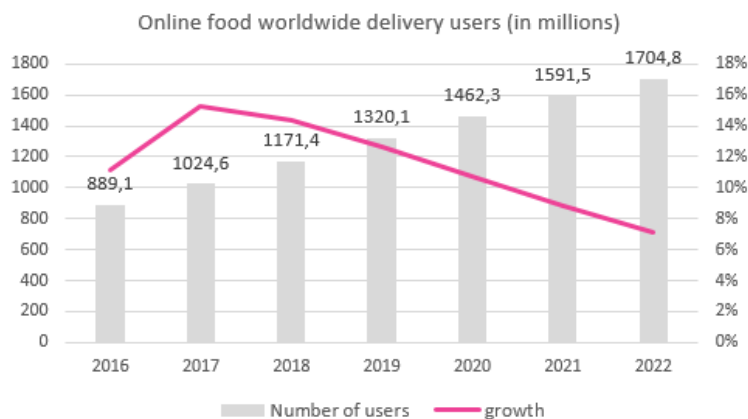
However, the European market is currently facing saturation. Customers' changing requirements, leading to e-commerce and m-commerce globalisation, have increased the number of online shoppers. Vendors are concentrating on replacing their physical stores with e-commerce channels. This rising penetration of the internet and payment solutions, and online and mobile payments, has lowered the number of POS terminals in circulation.

The key important point is to understand that, while the number of terminals is decreasing, the number of transactions on these terminals continues growing.

### Food delivery market

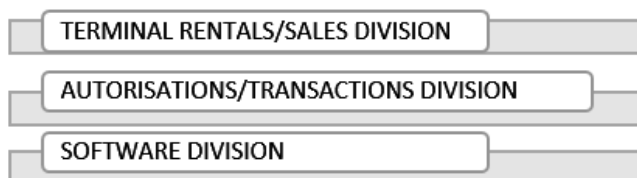
The new strategy followed by Keyware is betting on the food delivery market, through the EasyOrder app, acquired in 2016. The market for food delivery is currently very dynamic, and steadily growing and innovating. The process is very basic: customers can order food on the app and have it delivered to their doorstep or they can collect from the shop within a specific timeframe.

In FY21, revenue in the food delivery market reached \$126.9bn (+10.3% yoy) with the number of customers rising even more significantly. The CAGR over 2018-22 in revenue is expected to be 11.1%, as demand is exploding and as this is expected to continue.



### Lines of business

In 2017, the group implemented a fintech strategy in which it would grow from a pure service company to a software developer. The terminal division, currently in a mature stage, will decline in favour of the growing software division. The authorisations and transactions division, which is still profitable, will remain a key division in the following years.



### Payment terminals

The devices are sourced from the main suppliers of the market (mainly Ingenico and Worldline, and to a lesser extent Verifone) and then rented or sold to the company's customers.

The most common contract has a duration of 60 months, with a rental for each quarter which covers the operating and maintenance costs, while an installation fee is also charged at the start of the year. A customer can choose to upgrade to a newer terminal during the contract and, in this case, another 60 months contract is automatically signed in replacement of the previous one. At the end of the 60 months, either the contract is automatically renewed (as the life cycle of a terminal can reach 7-8 years), or the customer can choose to sign another 60 months contract with a new device. If the customer chooses to terminate the contract before the end of the contract, a penalty is applied (€750).

Keyware also proposes a customisation service, with the development of custom software addressing the potential special needs of customers. This

customisation provides an added value for the company, as it allows it to reach some customers who demand specific features in their terms of reference.

This division is becoming less and less profitable as the number of payment terminals is currently decreasing. However, the number of transactions on these terminals are still increasing, with the democratisation of card utilisation (contactless, meal vouchers...) and the increasing number of small amounts paid by card.

#### Payment authorisations

A terminal alone is merely a brick full of useless electronic components if they were unable to process the payment scheme and connect to the financial institutions, which will, *in fine*, move the funds between the shopper and the merchant's accounts.

Keyware thus provides such services (for credit cards/debit cards and vouchers), sending the transaction details to the acquirer through the appropriate payment network, for authorisation and then settlement. The position of Independent Network Service Provider allows the company to propose the services of several partners, among which are: Visa, MasterCard, Maestro, V-Pay, Bancontact, JCB, Amex, Ingenico, Worldline, SixPay, PaySquare, EMS... giving its customers the greatest flexibility according to their needs.

For each transaction, the whole payment chain is remunerated through fees packaged into a so-called Merchant Service Charge, corresponding to a fraction of the transaction value, which varies depending on the use of the Keyware's platform or a partner's.

#### Software

The software division is currently becoming Keyware's main division, developing principally in France and in its overseas departments and territories. In 2017, the group decided to diversify its activities and implement a fintech strategy. This conversion has been pushed by the acquisitions of the French company Magellan and the Belgian company EasyOrder, two companies at early stages of their product life-cycles which are rapidly developing in the market.

Through Magellan, Keyware is able to propose numerous SAAS (Software As A Service) components:

- Set2U: payment transaction software for banks and financial institutions. Payment data is processed so that it is impossible to reconstruct the card data, even using the most advanced techniques.
- S-Token: a process of replacing bank data (card number...) with disposable data called "tokens",
- Split: instalment payment solutions. This represents the most significant potential in the next few years.

EasyOrder offers a universal ordering and payment app, allowing customers to pay and order quickly and easily. It provides businesses with their own apps and webshops with their own logos and branding.

### Divisional Breakdown Of Revenues

Sector		12/21A	12/22E	12/23E	12/24E	Change 22E/21		Change 23E/22E	
						€th	of % total	€th	of % total
<b>Total sales</b>		<b>17,689</b>	<b>19,539</b>	<b>21,662</b>	<b>22,660</b>	<b>1,850</b> <span style="color: green;">▲</span>	<b>100%</b>	<b>2,123</b> <span style="color: green;">▲</span>	<b>100%</b>
<b>Terminals</b>	Smart Cards-Security	7,072	6,365	6,047	5,140	-707 <span style="color: red;">▼</span>	-38%	-318 <span style="color: red;">▼</span>	-15%
<b>Authorisations</b>	Smart Cards-Security	5,995	7,494	9,367	10,772	1,499 <span style="color: green;">▲</span>	81%	1,873 <span style="color: green;">▲</span>	88%
<b>Software</b>	Smart Cards-Security	4,897	5,681	6,249	6,748	784 <span style="color: green;">▲</span>	42%	568 <span style="color: green;">▲</span>	27%
<b>Corporate</b>	Smart Cards-Security								
Other		-275				275 <span style="color: green;">▲</span>	15%		

### Key Exposures

	Revenues	Costs	Equity
Dollar	0.0%	0.0%	0.0%
Emerging currencies	0.0%	0.0%	0.0%
Long-term global warming	0.0%	0.0%	0.0%

### Sales By Geography

Belgium	86.0%
France	12.0%
Other	2.0%

We address exposures (eg. how much of the turnover is exposed to the \$ ) rather than sensitivities (say, how much a 5% move in the \$ affects the bottom line). This is to make comparisons easier and provides useful tools when extracting relevant data.

Actually, the subject is rather complex on the ground. The default position is one of an investor managing in €. An investor in £ will obviously not react to a £ based stock trading partly in € as would a € based investor. In addition, certain circumstances can prove difficult to unravel such as for eg. a € based investor confronted to a Swiss company reporting in \$ but with a quote in CHF... Sales exposure is probably straightforward but one has to be careful with deep cyclical. Costs exposure is a bit less easy to determine (we do not allow for hedges as they can only be postponing the day of reckoning). How much of the equity is exposed to a given subject is rarely straightforward but can be quite telling.

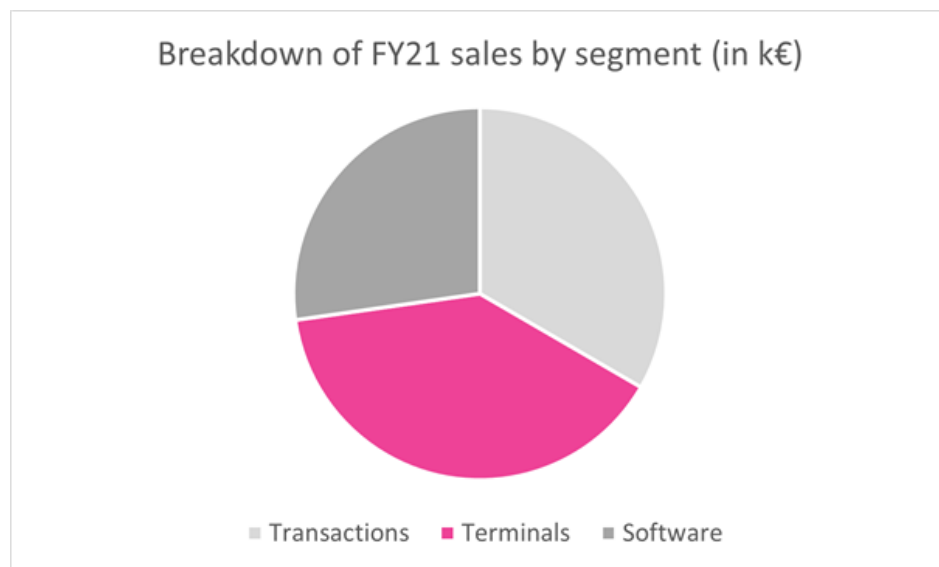
In addition, subjects are frequently intertwined. A \$ exposure may encompass all revenues in \$ pegged currencies and an emerging currency exposure is likely to include \$ pegged currencies as well.

Exposure to global warming issues is frequently indirect and may require to stretch a bit imagination.



## Money Making

Most of the cash generation comes from the terminals and authorisations divisions, which currently represent the majority of the revenues. The software division is expected to be an important value creator in the coming years and the group is pursuing a growing and innovating strategy.



### The profitable terminals and authorisations divisions

Even though Keyware has decided to focus on software rather than hardware, this division (including terminal rentals/sales and authorisations) remains a source of income for the group. The first step to secure this business has been the extension of the contract life to 60 months (€750 of penalty otherwise), which leaves the customer captive to the company. The silent renewal is another source of cash: if the customer doesn't show its intention to end the contract at the end of the 60 months, another year is automatically added on to the contract.

In this market, there are three key drivers:

- The quality of service, especially the hotline: one of the strengths of Keyware is to be very reactive and be able to deal with problems very quickly, justifying the premium by the quality of its service.
- Its proximity to the customer's needs, especially when it comes to the customisation of terminals. Keyware can propose to add exclusive features to standard terminals, hence justifying a premium by the importance given to them by the customer.
- The flexibility of its solutions: customers don't buy the terminals but rent them from Keyware, which gives the former the possibility of upgrading the machines at any time if they wish (through an extension of the duration).

The quality of customers is also of much importance as an insolvency directly impacts sales. At the signing of the agreement, the entire amount of rent for

the 60 months is recognised, while the cash is received only in each quarter. Therefore, a default of a payment can reduce sales and represent a certain risk for the group.

Finally, the installed base of terminals will be leveraged in the Authorisations business, which provides acquiring services to the merchants. It represents significant potential for operating profit upside, given the transition from a shared revenue model to a brokering model, whereby the company buys the transaction from the acquirer at a floor price and sells it on to the customer at a discretionary price, thus leading to a substantial rise in revenues for the same number of transactions.

### **A “soft” transition phase**

The transformation of the group to a software provider implies significant changes in the way of making an operating profit. The software division, gathering together Magellan and EasyOrder, is currently a niche market with strong growth potential.

Magellan provides SAAS components, which are sold to customers through a licence at the signing of the contract. Magellan, initially a technical company, has become, through Keyware, more commercial. The group is currently considering trade transactions and applying commissions, complementing the licence revenue. The instalment pay service (Split) looks to be the most profitable in the coming years as the decreasing purchasing power made this solution interesting. It allows companies, such as Volkswagen (one of Magellan's biggest customers) to increase their sales potential.

EasyOrder has taken advantage of the growth in the food delivery market, offering to retailers the possibility of proposing their products to customers through a smartphone application. Revenues come from rental and maintenance services, like the payment terminals division.

The software allows the company to realise:

- synergies: customers of Magellan and EasyOrder will also need electronic payment solutions proposed by Keyware. Therefore, the group makes a profit on the licence sold and on the payment electronic contract which follows the deal;
- an important cash generation and return on investment: as costs represent principally marketing and advertising charges, contrary to the terminal division which involves significant capex.

## Divisional EBIT

	12/21A	12/22E	12/23E	12/24E	Change 22E/21		Change 23E/22E	
					€th	of % total	€th	of % total
<b>Total</b>	<b>119</b>	<b>442</b>	<b>811</b>	<b>947</b>	<b>323</b>	<b>100%</b>	<b>369</b>	<b>100%</b>
<b>Terminals</b>	566	509	484	411	-57	-18%	-25	-7%
<b>Authorisations</b>	749	937	1,171	1,347	188	58%	234	63%
<b>Software</b>	-392	-398	-437	-472	-6	-2%	-39	-11%
<b>Corporate</b>	-804	-606	-407	-339	198	61%	199	54%
Other/cancellations								

## Divisional EBIT margin

	12/21A	12/22E	12/23E	12/24E
<b>Total</b>	<b>0.67%</b>	<b>2.26%</b>	<b>3.74%</b>	<b>4.18%</b>
<b>Terminals</b>	8.00%	8.00%	8.00%	8.00%
<b>Authorisations</b>	12.5%	12.5%	12.5%	12.5%
<b>Software</b>	-8.00%	-7.00%	-7.00%	-7.00%
<b>Corporate</b>				

## Valuation

The DCF now includes the strategic change made by Keyware from a complete hardware supplier to more of a software company.

The company no longer benefits from the terminals division as its potential to increase its ASP is currently limited compared to bigger competitors and the democratisation of online payments. These reasons and the headwinds encountered from late 2016 (difficulties with small businesses, longer lead-times in the institutional market) have led us to downgrade our expectations, as we now expect a drop in growth looking forward. For authorisations, we chose to apply a steady growth at around 13% in the coming years, as the company has demonstrated its capacity to realise remarkable revenue and operating profit in this division. The business witnessed strong growth rates in recent quarters, in the wake of a strong start (this business originates from the takeover of BRV Transactions in 2007) and of an increasing installed basis. As mentioned in the Business & Trends and Money Making sections, the software division, although currently representing a minor part of Keyware's operating profitability, has important potential. The good perspectives for this division and the results in FY18 lead us to apply, after Magellan and EasyOrder's integration, a 15% growth rate in the following years. We expect that the Software division will rapidly become a major value creator for Keyware.

We have decided to integrate the financial income in the EBITDA, as it represents the difference between the total value of the contract and the discounted value recognised each month. This difference is only the product of the actualisation. Having received the cash, it is necessary for the company to reintegrate the difference in the EBITDA to represent the truly accessible cash generation.

Concerning the NAV, we have chosen to value Keyware in the same way as we do for Ingenico, which has a very similar business. As a consequence, we value the business lines by EV/Sales multiples with a computed 3-year average forecast, with a multiple of 2.3x for the Terminals business and 1.5x for Authorisations, for which we have applied a discount due to its inferior margins and dependence on terminal sales. We also integrate the new Software business at the acquisition prices.

As for the peer valuation, we have included companies in our coverage with a similar business line (Ingenico) or sector (IT-Hardware), although, apart from Ingenico, the actual businesses are rather different. This approach delivers a strong upside in every metric, with the exception of the dividend yield, but, given the difference in scale, we have chosen to apply a discount to Keyware.

## Valuation Summary

Benchmarks		Values (€)	Upside	Weight
DCF		3.02	196%	35%
NAV/SOTP per share		2.05	101%	20%
EV/Ebitda	Peers	2.04	100%	20%
P/E	Peers	2.04	100%	10%
Dividend Yield	Peers	0.00	-100%	10%
P/Book	Peers	2.04	100%	5%
Target Price		2.18	114%	

## Comparison based valuation

Computed on 18 month forecasts	P/E (x)	Ev/Ebitda (x)	P/Book (x)	Yield(%)
Peers ratios	31.7	14.5	3.49	0.80
Keyware's ratios	8.51	4.17	0.68	0.00
Premium	0.00%	0.00%	0.00%	0.00%
Default comparison based valuation (€)	2.04	2.04	2.04	0.00
Adyen	54.4	38.7	12.2	0.00
Amadeus IT Group	23.5	12.5	4.83	1.88
EdenRed	29.2	14.0	-59.8	2.43
Worldline	26.2	9.41	1.32	0.00
Nexi	22.8	7.77	0.84	0.00

## DCF Valuation Per Share

WACC	%	9.11	Avg net debt (cash) at book value	€th	63.4
PV of cashflow FY1-FY11	€th	26,241	Provisions	€th	158
FY11CF	€th	7,841	Unrecognised actuarial losses (gains)	€th	0.00
Normalised long-term growth "g"	%	2.00	Financial assets at market price	€th	150
Sustainability "g"	%	1.80	Minorities interests (fair value)	€th	0.00
Terminal value	€th	107,208	Equity value	€th	70,986
PV terminal value	€th	44,816	Number of shares	Th	23,544
PV terminal value in % of total value	%	63.1	<b>Implied equity value per share</b>	€	<b>3.02</b>
Total PV	€th	71,057	Sustainability impact on DCF	%	-1.74

## Assessing The Cost Of Capital

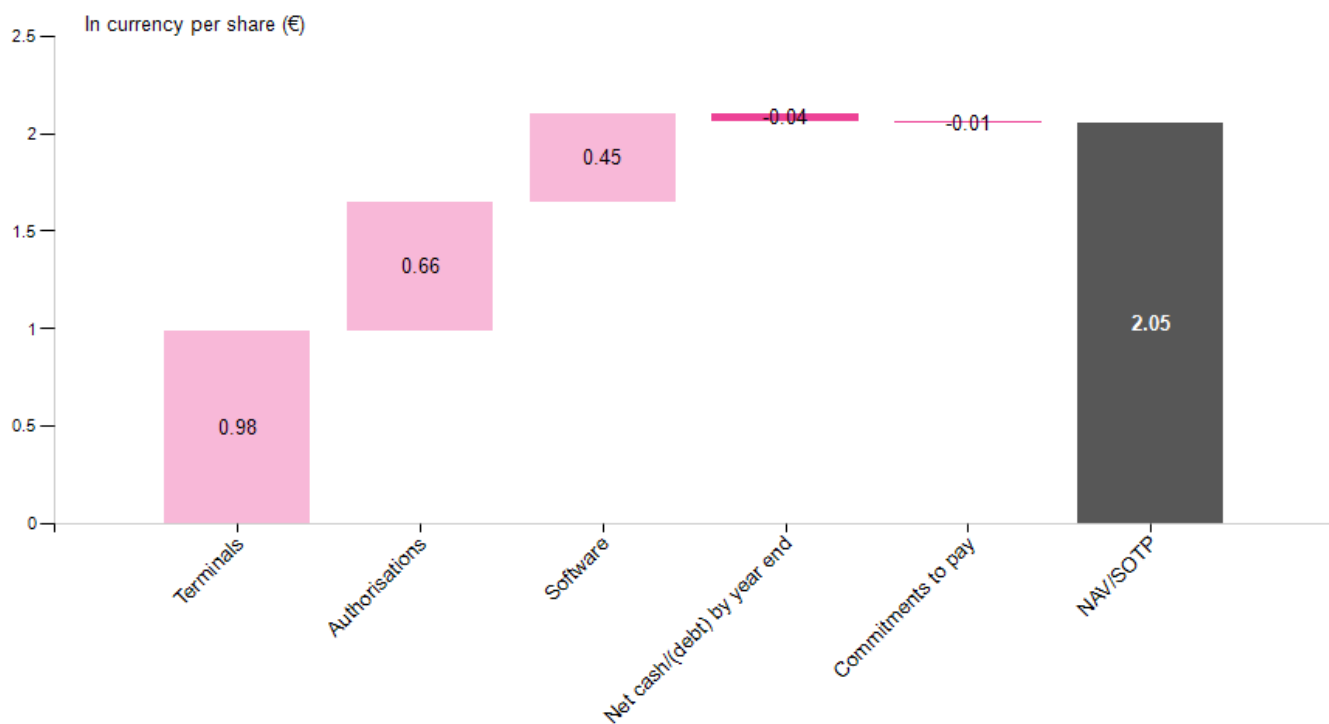
Synthetic default risk free rate	%	3.50	Company debt spread	bp	250
Target equity risk premium	%	5.00	Marginal Company cost of debt	%	6.00
Tax advantage of debt finance (normalised)	%	30.0	<b>Company beta (leveraged)</b>	<b>x</b>	<b>1.16</b>
Average debt maturity	Year	5	Company gearing at market value	%	4.14
Sector asset beta	x	1.13	Company market gearing	%	3.97
Debt beta	x	0.50	<b>Required return on geared equity</b>	<b>%</b>	<b>9.30</b>
Market capitalisation	€th	24,015	Cost of debt	%	4.20
Net debt (cash) at book value	€th	993	<b>Cost of ungeared equity</b>	<b>%</b>	<b>9.15</b>
Net debt (cash) at market value	€th	903	WACC	%	9.11

## DCF Calculation

		12/21A	12/22E	12/23E	12/24E	Growth	12/25E	12/32E
Sales	€th	17,689	19,539	21,662	22,660	9.00%	24,700	45,152
EBITDA	€th	4,610	4,400	5,407	5,769	8.50%	6,260	11,081
EBITDA Margin	%	26.1	22.5	25.0	25.5		25.3	24.5
Change in WCR	€th	-1,842	-792	-1,018	-1,323	0.50%	-1,329	-1,377
Total operating cash flows (pre tax)	€th	2,092	2,809	3,589	3,847		4,930	9,704
Corporate tax	€th	143	-212	-335	-401	1.50%	-407	-452
<b>Net tax shield</b>	<b>€th</b>	<b>-31.8</b>	<b>-30.0</b>	<b>-30.0</b>	<b>-30.0</b>	<b>1.50%</b>	<b>-30.5</b>	<b>-33.8</b>
Capital expenditure	€th	-870	-1,172	-1,300	-1,360	1.50%	-1,380	-1,532
Capex/Sales	%	-4.92	-6.00	-6.00	-6.00		-5.59	-3.39
Pre financing costs FCF (for DCF purposes)	€th	1,339	1,400	1,929	2,061		3,113	7,687
Various add backs (incl. R&D, etc.) for DCF purposes	€th							
<b>Free cash flow adjusted</b>	<b>€th</b>	<b>1,339</b>	<b>1,400</b>	<b>1,929</b>	<b>2,061</b>		<b>3,113</b>	<b>7,687</b>
<b>Discounted free cash flows</b>	<b>€th</b>	<b>1,339</b>	<b>1,400</b>	<b>1,768</b>	<b>1,731</b>		<b>2,396</b>	<b>3,213</b>
Invested capital	€	30.3	33.6	34.7	36.0		36.5	40.5

## NAV/SOTP Calculation

	% owned	Valuation technique	Multiple used	Valuation at 100% (€th)	Stake valuation (€th)	In currency per share (€)	% of gross assets
<b>Terminals</b>	100%	EV/Sales	2.3	23,175	23,175	0.98	46.9%
<b>Authorisations</b>	100%	EV/Sales	1.5	15,570	15,570	0.66	31.5%
<b>Software</b>	100%	Adj. historical price		10,700	10,700	0.45	21.6%
Other							
<b>Total gross assets</b>					<b>49,445</b>	<b>2.10</b>	<b>100%</b>
Net cash/(debt) by year end					-993	-0.04	-2.01%
Commitments to pay					-158	-0.01	-0.32%
Commitments received							
NAV/SOTP					48,294	2.05	97.7%
<b>Number of shares net of treasury shares - year end (Th)</b>					<b>23,544</b>		
<b>NAV/SOTP per share (€)</b>						<b>2.05</b>	
<b>Current discount to NAV/SOTP (%)</b>						<b>50.3</b>	



## Debt

The financial debt position mainly reflects Keyware's recent acquisitions (Magellan, EasyOrder). However, it does not represent a threat to the cash position, as a mixture of own resources and financing have been used. Most of this borrowing represents debt of less than a year.

To finance the Magellan acquisition (€10m), Keyware raised a bank loan (€7.5m), €2m of which will be reimbursed in June 2019, and €5.5m in monthly instalments ending on 30 September 2021. The remainder corresponds to Keyware's own fund and treasury. EasyOrder (€700,000) was financed through the same process.

Detailed financials at the end of this report

## Funding - Liquidity

		12/21A	12/22E	12/23E	12/24E
EBITDA	€th	4,610	4,400	5,407	5,769
Funds from operations (FFO)	€th	3,971	3,294	4,178	4,674
<b>Ordinary shareholders' equity</b>	<b>€th</b>	<b>27,892</b>	<b>31,499</b>	<b>34,373</b>	<b>37,684</b>
Gross debt	€th	1,560	1,222	934	761
+ Gross Cash	€th	-763	229	1,800	3,619
<b>= Net debt / (cash)</b>	<b>€th</b>	<b>2,323</b>	<b>993</b>	<b>-867</b>	<b>-2,858</b>
Gearing (at book value)	%	10.5	5.26	0.18	-4.94
Equity/Total asset (%)	%	83.6	90.9	96.4	102
Adj. Net debt/EBITDA(R)	x	0.50	0.23	-0.16	-0.50
Adjusted Gross Debt/EBITDA(R)	x	0.41	0.31	0.20	0.16
Adj. gross debt/(Adj. gross debt+Equity)	%	6.35	4.20	3.09	2.40
Ebit cover	x	26.7	25.8	34.3	37.2
FFO/Gross Debt	%	210	239	381	505
FFO/Net debt	%	171	332	-482	-164
FCF/Adj. gross debt (%)	%	66.5	96.0	169	214
(Gross cash+ "cash" FCF+undrawn)/ST debt	x	0.69	2.15	8.45	21.6
"Cash" FCF/ST debt	x	1.75	1.84	4.30	7.67



## Worth Knowing

### Players of the payment chain

Merchants: supply the goods and services in exchange of a payment, which can be cash or electronic, the latter requiring a payment terminal (or a gateway in the case of e-commerce). A merchant maximises its chances of concluding a transaction by accepting as many payment schemes as possible.

Payment acceptance processing providers: provide the merchants with the interface (POS terminals, online gateways) required to connect the card to the network and drive the transaction.

Acquirers: financial institutions which host the merchant accounts and give access to the desired card schemes (Visa, Mastercard...). They will also receive the funds (on which they will take a fee in exchange for the service provided) from the customers' banks once the transaction is completed.

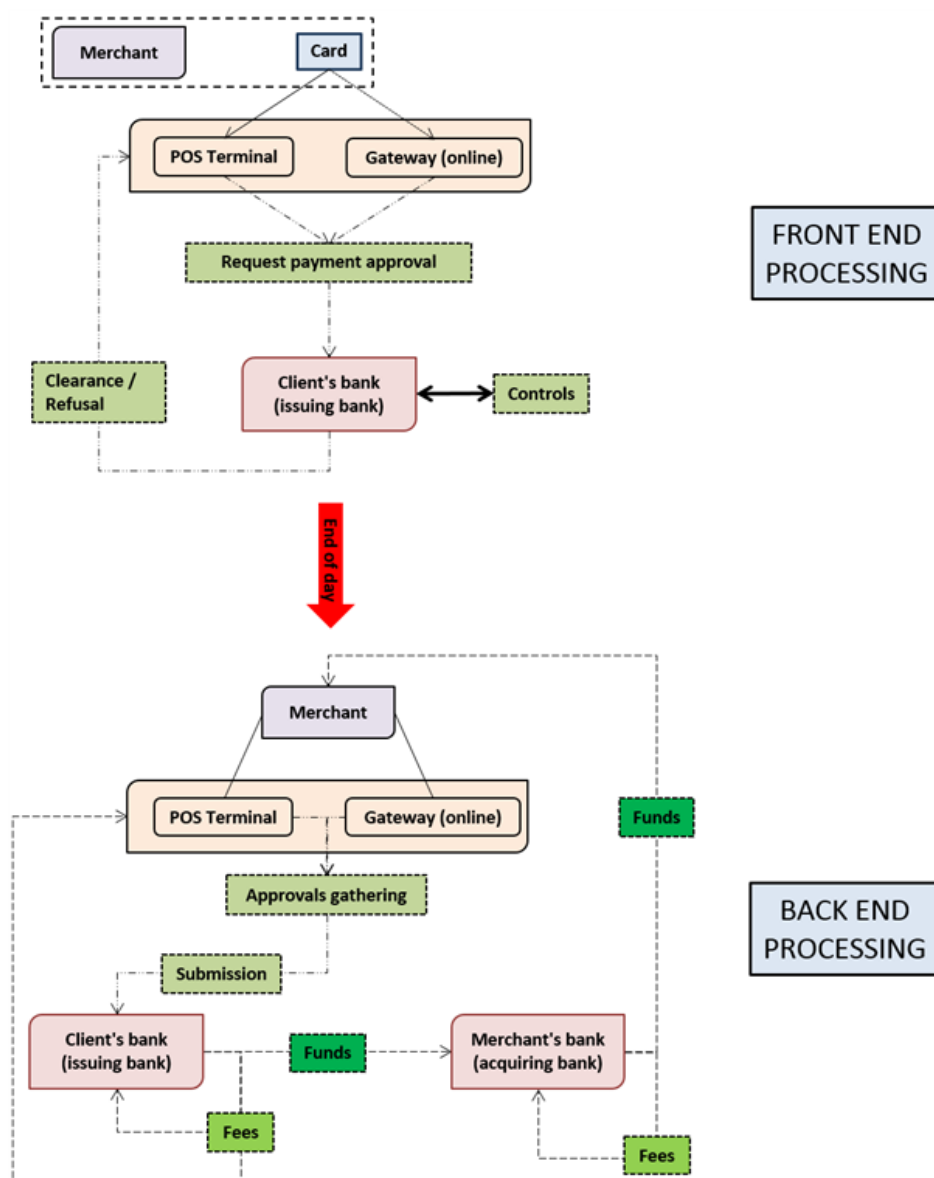
Acceptance-related service providers: provide additional services to the merchants, such as coupons, loyalty, additional functionalities to the terminal, electronic meal vouchers...

Acquiring & issuing processors: provide payment transaction services to the acquirers and issuers through front-end (delivering payment clearances/refusals) and back-end (delivering gathered transaction approvals for settlement) processing.

Card schemes: players such as Visa, Mastercard... which operate their own networks with specific transaction rules.

Clearing and settlement institutes: correspond generally to national financial institutions, provide clearing and settlement of transactions between acquirers and issuers.

Issuers: provide the payment cards (which can use different schemes) used by the customers.



### Shareholders

Name	% owned	Of which % voting rights	Of which % free to float
Powergraph BVBA	47.6%	47.6%	0.00%
Big Friend/Stéphane Vandervelde	10.0%	10.0%	0.00%
Drupafina	10.0%	10.0%	0.00%
<b>Apparent free float</b>			<b>32.4%</b>

## Sustainability

### Sustainability score

Sustainability is made of analytical items contributing to the E, the S and the G, that can be highlighted as sustainability precursors and can be combined in an intellectually acceptable way. This is the only scale made available

	Score	Weight
<b>Governance</b>		
Independent directors rate	6/10	25%
Board geographic diversity	4/10	20%
Chairman vs. Executive split	✗	5%
<b>Environment</b>		
CO <sup>2</sup> Emission	2/10	25%
Water withdrawal	3/10	10%
<b>Social</b>		
Wage dispersion trend	0/10	5%
Job satisfaction	10/10	5%
Internal communication	10/10	5%
<b>Sustainability score</b>	<b>4.1/10</b>	<b>100%</b>

## Governance & Management

The company benefits from a highly experienced management team with long-time service in the industry.

In April 2021, the board of directors of Keyware Technologies NV decided to terminate the cooperation with its CEO Big Friend NV, Stephane Vandervelde. He resigned all his mandates as director in all Keyware companies and stepped down from his role of CEO. In order to ensure the continuity of the business, Guido Van Der Schueren (Powergraph BV), the chairman of the board, has been appointed as CEO for the interim.

### Governance score

Company (Sector)







7.4 (7.3)

Independent board






Yes

Parameters	Company	Sector	Score	Weight
Number of board members	5	9	10/10	5.0%
Board feminization (%)	40	29	7/10	5.0%
Board domestic density (%)	80	56	4/10	10.0%
Average age of board's members	46	60	10/10	5.0%
Type of company : Small cap, controlled			4/10	10.0%
Independent directors rate	60	45	6/10	20.0%
One share, one vote			✓	10.0%
Chairman vs. Executive split			✗	0.0%
Chairman not ex executive			✗	5.0%
Full disclosure on mgt pay			✓	5.0%
Disclosure of performance anchor for bonus trigger			✓	5.0%
Compensation committee reporting to board of directors			✓	5.0%
Straightforward, clean by-laws			✓	15.0%
<b>Governance score</b>			<b>7.4/10</b>	<b>100.0%</b>

### Management

Name		Function	Birth date	Date in	Date out	Compensation, in k€ (year)	
						Cash	Equity linked
Guido VAN DER SCHUEREN	M	 CEO		2021			
Alain HUBERT	M	 CFO		2013			
David LEYNEN	M	 COO		2020			
Joris MAES	M	 CCO		2010			
Laurent VANDERVELDE	M	 CCO		2016			
Franck WILLMANN	M	 Executive Officer		2002			

### Board of Directors

Name		Indep. Function	Completion of current mandate	Birth date	Date in	Date out	Fees / indemnity, in k€ (year)	Value of holding, in k€ (year)
Guido VAN DER SCHUEREN	M	 ✗ President/Chairman of th...					(2020)	(2020)
Mathilde ARAUJO	F	 ✗ Member			2019		(2020)	(2020)
Koen DE BRABANDER	M	 ✓ Member			2019		(2020)	(2020)
Kurt FAES	M	 ✓ Member			2019		(2020)	(2020)
Hildegard VERHOEVEN	F	 ✓ Member			2019		(2020)	(2020)

## Environmental score

Data sets evaluated as trends on rolling calendar, made sector relative

Parameters	Score	Sector	Weight
CO <sup>2</sup> Emission	2/10	4/10	30%
Water withdrawal	3/10	4/10	30%
Energy	3/10	4/10	25%
Waste	3/10	4/10	15%
<b>Environmental score</b>	<b>2.7</b>		<b>100%</b>







Company (Sector)

**2.7** (4.2)

## Environmental metrics

	Company		
	2021	2022	2023
	3.6	2.7	2.7

## Sector figures

Company	Country	Environment score	Energy (total, in GJ)	CO2 Emissions (in tons)	Water Withdrawal (in m3)	Waste (total, (in tons)
<b>Keyware</b>		3/10				
<b>u-blox</b>		5/10	100,000	4,000	1,700	2,000
<b>Nokia</b>		3/10	3,812,400	348,800	1,182,000	8,400
<b>Ericsson</b>		8/10	2,271,600	96,000	1,200,000	6,777
<b>Logitech International</b>		7/10	109,821	1,461	360,269	933
<b>Inficon</b>		7/10	55,544	1,237	12,000	386

## Social score

Company (Sector)

5.5<sub>(7.1)</sub>

## Quantitative metrics (67%)

Set of staff related numerical metrics available in AlphaValue proprietary modelling aimed at ranking on social/HR matters

Parameters	Score	Weight
Staffing Trend	7/10	20%
Average wage trend	6/10	35%
Share of added value taken up by staff cost	1/10	25%
Share of added value taken up by taxes	1/10	20%
Wage dispersion trend	0/10	0%
Pension bonus (0 or 1)	0	
<b>Quantitative score</b>	<b>4.0/10</b>	<b>100%</b>

## Qualitative metrics (33%)

Set of listed qualitative criterias and for the analyst to tick

Parameters	Score	Weight
Accidents at work	10/10	25%
Human resources development	6/10	35%
Pay	10/10	20%
Job satisfaction	10/10	10%
Internal communication	10/10	10%
<b>Qualitative score</b>	<b>8.6/10</b>	<b>100%</b>

AlphaValue analysts tick boxes on essential components of the social/HR corporate life.

Decision about ticking Yes or No is very much an assessment that combines the corporate's communication on relevant issue and the analyst's better judgment from experience.

## Qualitative score

Parameters	Yes  / No 	Weight
<b>Accidents at work</b>		<b>25%</b>
Set targets for work safety on all group sites?		10.0%
Are accidents at work declining?		15.0%
<b>Human resources development</b>		<b>35%</b>
Are competences required to meet medium term targets identified?		3.5%
Is there a medium term (2 to 5 years) recruitment plan?		3.5%
Is there a training strategy tuned to the company objectives?		3.5%
Are employees trained for tomorrow's objectives?		3.5%
Can all employees have access to training?		3.5%
Has the corporate avoided large restructuring lay-offs over the last year to date?		3.5%
Have key competences stayed?		3.5%
Are managers given managerial objectives?		3.5%
If yes, are managerial results a deciding factor when assessing compensation level?		3.5%
Is mobility encouraged between operating units of the group?		3.5%
<b>Pay</b>		<b>20%</b>
Is there a compensation committee?		6.0%
Is employees' performance combining group AND individual performance?		14.0%
<b>Job satisfaction</b>		<b>10%</b>
Is there a measure of job satisfaction?		3.3%
Can anyone participate ?		3.4%
Are there action plans to prop up employees' morale?		3.3%
<b>Internal communication</b>		<b>10%</b>
Are strategy and objectives made available to every employee?		10.0%
<b>Qualitative score</b>	<b>8.6/10</b>	<b>100.0%</b>

## Staff & Pension matters

The company had 66 employees at 31 December 2020. This number has been pushed up by the integration of Magellan and EasyOrder employees and the permanent employment of new commercial sales people. The employees are mainly based in Belgium and France, hence the company doesn't hold any pension-related debt.

As the company starts to develop new technologies and innovate to develop its software division, R&D can be considered more and more significant. As a consequence, the employees in the development segment become as important as the sales and marketing segment.

Detailed financials at the end of this report

### Summary Of Pension Risks

		12/21A	12/22E	12/23E	12/24E
<b>Pension ratio</b>	%	<b>0.72</b>	<b>0.50</b>	<b>0.47</b>	<b>0.44</b>
Ordinary shareholders' equity	€th	27,892	31,499	34,373	37,684
<b>Total benefits provisions</b>	<b>€th</b>	<b>201</b>	<b>158</b>	<b>162</b>	<b>166</b>
<i>of which funded pensions</i>	<i>€th</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
<i>of which unfunded pensions</i>	<i>€th</i>	<i>201</i>	<i>158</i>	<i>162</i>	<i>166</i>
<i>of which benefits / health care</i>	<i>€th</i>		<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Unrecognised actuarial (gains)/losses	€th	0.00	0.00	0.00	0.00

### Geographic Breakdown Of Pension Liabilities

		12/21A	12/22E	12/23E	12/24E
US exposure	%				
UK exposure	%				
Euro exposure	%				
Nordic countries	%				
Switzerland	%				
Other	%	100	100	100	100
Total	%	100	100	100	100

## Recent updates

03/10/2022

### A smooth start to the year

Earnings/sales releases

**We highly welcome the H1 FY22 very good performance. Most of the results' increase was linked to the Payment Solutions acquisition in January, but also thanks to the company's good execution regarding the integration of the new payment partner. The expansion of its sales force remains the big challenge looking forward.**

### Fact

#### H1 FY22 key financials :

- Revenue up by +43.3% to €12,211k
- EBIT up by +164.7% to €802k
- EBITDA up by +33.1% to €2,475k
- Net profit up by +95.4% to €856k

### Analysis

Strong performance during H1 FY22 through every product and service range. It should be borne in mind that the results were mainly driven by the acquisition of Payment Solutions, which pushed up Terminal division's results: sales up by +37% and gross margin up by +30%. There was nevertheless a notable increase in results excluding this factor. As a reminder, Keyware announced in January the acquisition of Payment Solutions BV, a player in the electronic payment solutions market with clients mainly located in Flanders and Brussels, expected to increase Keyware's customers base by c. 15%. During the first semester, the acquisition's contribution to revenue and EBITDA was €2,162k and €441k respectively, in line with the expectations announced at the beginning of the year.

Excluding the acquisition, H1 FY22 Keyware's sales were up by c. 18%, EBIT up by c. +33% and EBITDA up by c. +9.5%, translating improvement outside the inclusion of Payment Solutions. Indeed, Authorizations segment showed +59% and +67% sales and gross margin growth respectively. The division was driven by the completion (finally!) of the migration to a new payment partner – in June 2021, only 86.7% was achieved-, the recovery of consumer spending since COVID-19, as well as a change in commercial approach.

The software division reported +35% sales and +17% gross margin growth, thanks to an increasing demand for payment applications, such as Keyware's instalment payment solutions offer (Split), and the expansion of the offering with order and payment kiosks.

Looking forward, the company is measuring the potential impact of the overall cost of living, especially energy prices, on the consumption spending patterns of its customers. This should have an indirect impact on the Authorization division. Regarding the Terminal and Software division, most of the



development will depend on the company's ability to recruit new and qualified sales representatives (continuing to be one of the company's main issues).

### Impact

We will integrate the very good H1 FY22 figures, but no major changes are envisaged in our FY22 expectations overall. We have already integrated the positive impact from the Payment Solutions acquisition and were already quite optimistic for the year 2022.

**18/05/2022**

### Integration of the FY21 figures

<b>Change in Target Price</b>	€ 2.33 vs 2.05	+13.8%
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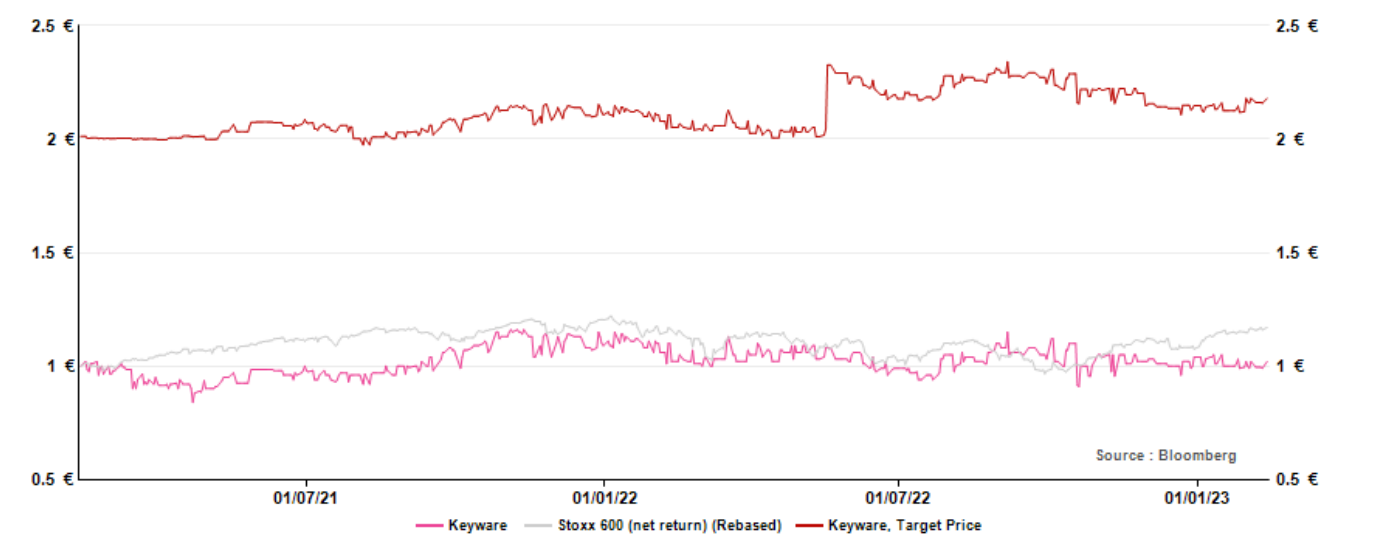
<b>Change in EPS</b>	2022 : € 0.09 vs 0.09	+1.12%
	2023 : € 0.12 vs 0.10	+20.5%

We have integrated the FY21 figures which came in higher than our expectations owing to strong growth across the three segments. Low comps due to the pandemic and the completion of the transition to a new transaction partner drove both the top and bottom lines. Looking forward, the strong FY21 figures have boosted our expectations for the coming years although we also expect some normalization.

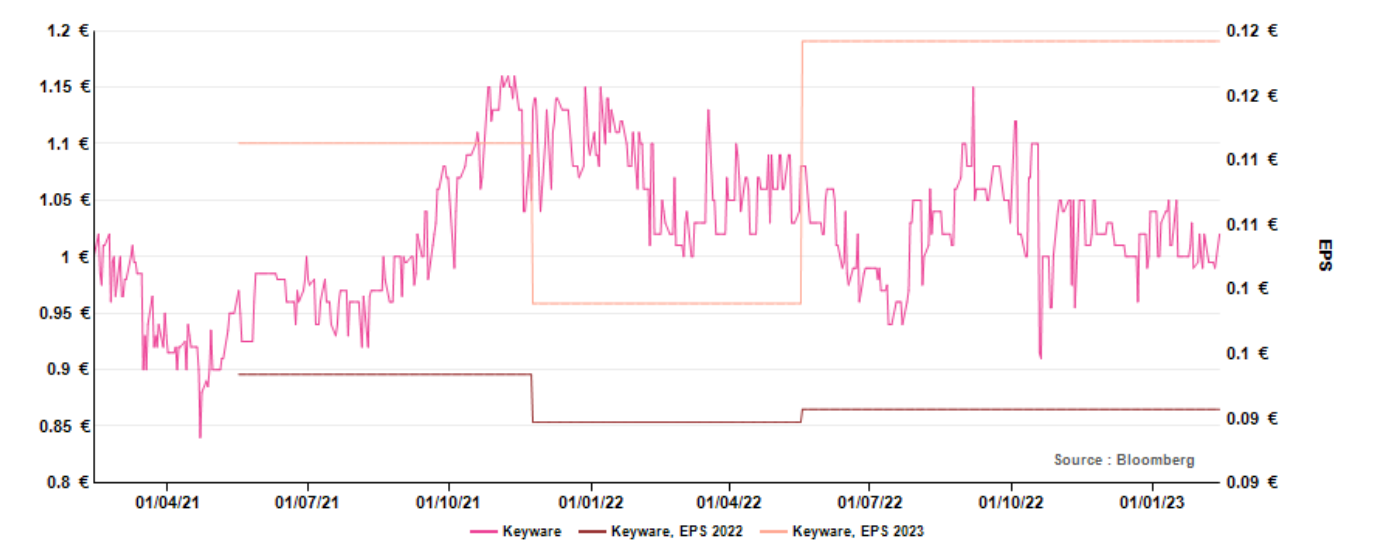
<b>Change in DCF</b>	€ 3.32 vs 2.54	+30.4%
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Our DCF has been upgraded due to the revised earnings estimates for FY21 thanks to the reasons outlined above.

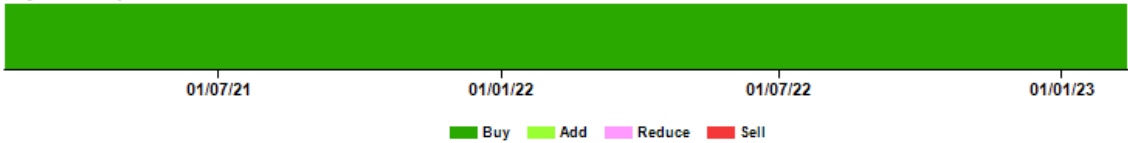
Stock Price and Target Price



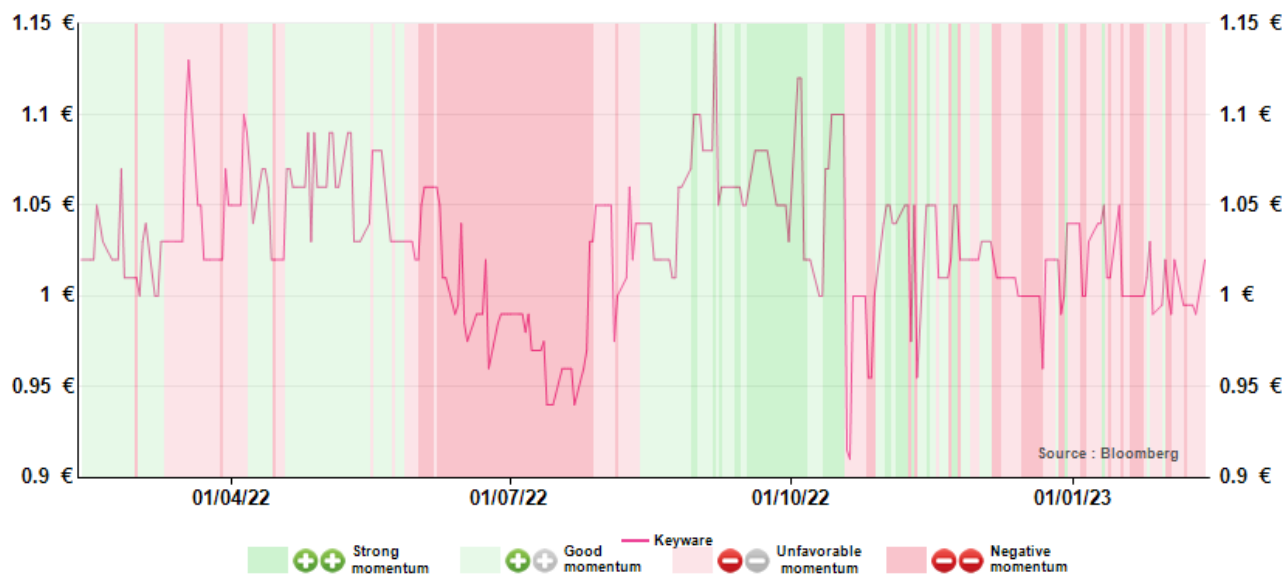
Earnings Per Share & Opinion



Keyware : Opinion



## Momentum





Momentum analysis consists in evaluating the stock market trend of a given financial instrument, based on the analysis of its trading flows.


The main indicators used in our momentum tool are simple moving averages over three time frames: short term (20 trading days), medium term (50 days) and long term (150 days). The positioning of these moving averages relative to each other gives us the direction of the flows over these time frames.


For example, if the short and medium-term moving averages are above the long-term moving average, this suggests an uptrend which will need to be confirmed. Attention is also paid to the latest stock price relative to the three moving averages (advance indicator) as well as to the trend in these three moving averages - downtrend, neutral, uptrend - which is more of a lagging indicator.

The trend indications derived from the flows through moving averages and stock prices must be confirmed against trading volumes in order to confirm the signal. This is provided by a calculation based on the average increase in volumes over ten weeks together with a buy/sell volume ratio.

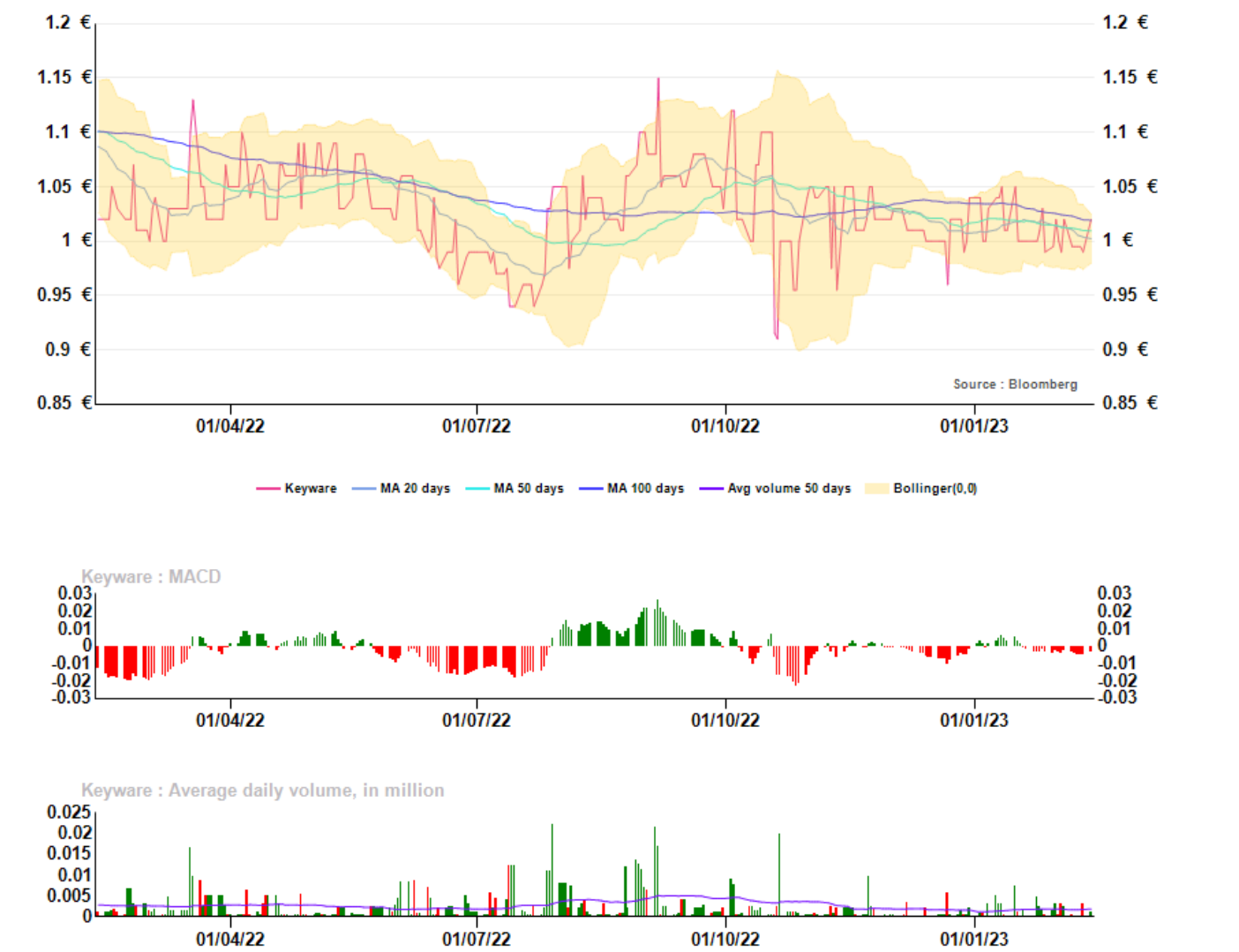
 : Strong momentum corresponding to a continuous and overall positive moving average trend confirmed by volumes

 : Relatively good momentum corresponding to a positively-oriented moving average, but offset by an overbought pattern or lack of confirmation from volumes

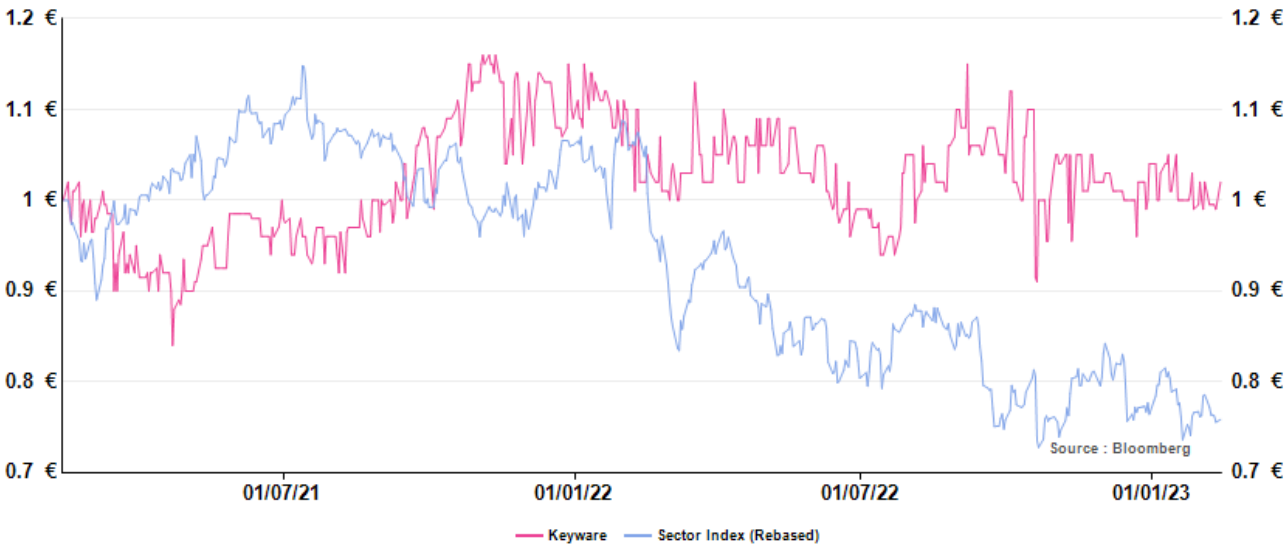
 : Relatively unfavorable momentum with a neutral or negative moving average trend, but offset by an oversold pattern or lack of confirmation from volumes

 : Strongly negative momentum corresponding to a continuous and overall negative moving average trend confirmed by volumes

Moving Average MACD & Volume



Sector IT Hardware



## Detailed Financials

Valuation Key Data		12/21A	12/22E	12/23E	12/24E
Adjusted P/E	x	8.22	11.4	8.56	8.00
Reported P/E	x	49.4	38.5	23.9	20.0
EV/EBITDA(R)	x	5.66	5.78	4.28	3.67
EV/EBIT	x	9.20	10.4	7.15	6.04
EV/Sales	x	1.47	1.30	1.07	0.93
P/Book	x	0.85	0.78	0.70	0.64
Dividend yield	%	0.00	0.00	0.00	0.00
Free cash flow yield	%	5.34	5.42	7.72	8.27
Average stock price	€	1.00	1.04	1.02	1.02

## Keyware (Buy)

## Consolidated P&amp;L

		12/21A	12/22E	12/23E	12/24E
<b>Sales</b>	€th	17,689	19,539	21,662	22,660
<i>Sales growth</i>	%	36.5	10.5	10.9	4.61
<i>Sales per employee</i>	€th	276	305	338	354
<b>R&amp;D costs as % of sales</b>	%	0.00	0.00	0.00	0.00
Staff costs	€th	-3,145	-3,145	-3,145	-3,145
Operating lease payments	€th				
Cost of sales/COGS (indicative)	€th				
<b>EBITDA</b>	€th	4,610	4,400	5,407	5,769
EBITDA(R)	€th	4,610	4,400	5,407	5,769
<i>EBITDA(R) margin</i>	%	26.1	22.5	25.0	25.5
<i>EBITDA(R) per employee</i>	€th	72.0	68.8	84.5	90.1
Depreciation	€th	-1,600	-1,954	-2,166	-2,266
<i>Depreciations/Sales</i>	%	9.05	10.0	10.0	10.0
Amortisation	€th				
Reduction of provisions	€th	-175			
<b>Underlying operating profit</b>	€th	2,835	2,447	3,241	3,503
<i>Underlying operating margin</i>	%	16.0	12.5	15.0	15.5
Other income/expense (cash)	€th				
Impairment charges/goodwill amortisation	€th	-2,394	-1,500	-1,800	-1,800
<b>Operating profit (EBIT)</b>	€th	441	947	1,441	1,703
Interest expenses	€th	-106	-100	-100	-100
<i>of which effectively paid cash interest expenses</i>	€th	-106	0.00	0.00	-144
Financial income	€th				
Other financial income (expense)	€th				
<b>Net financial expenses</b>	€th	-106	-100	-100	-100
<i>of which related to pensions</i>	€th		-5.03	-5.63	-5.77
<b>Pre-tax profit before exceptional items</b>	€th	335	847	1,341	1,603
Exceptional items and other (before taxes)	€th				
Current tax	€th	143	-212	-335	-401
Deferred tax	€th				
<b>Corporate tax</b>	€th	143	-212	-335	-401
<i>Tax rate</i>	%	-5.24	9.02	10.7	11.8
<b>Net margin</b>	%	2.70	3.25	4.64	5.31
Equity associates	€th				
<i>Actual dividends received from equity holdings</i>	€th				
Minority interests	€th				
Income from discontinued operations	€th				
<b>Attributable net profit</b>	€th	478	635	1,006	1,203
Impairment charges/goodwill amortisation	€th	2,394	1,500	1,800	1,800
Other adjustments	€th				
<b>Adjusted attributable net profit</b>	€th	2,872	2,135	2,806	3,003
<b>Fully diluted adjusted attr. net profit</b>	€th	2,872	2,135	2,806	3,003
<b>NOPAT</b>	€th	1,985	1,716	2,273	2,456

## Keyware (Buy)

## Cashflow Statement

		12/21A	12/22E	12/23E	12/24E
EBITDA	€th	4,610	4,400	5,407	5,769
Change in WCR	€th	-1,842	-792	-1,018	-1,323
of which (increases)/decr. in receivables	€th	-1,788	-678	-367	-1,060
of which (increases)/decr. in inventories	€th	-48.0	-104	-98.5	-83.7
of which increases/(decr.) in payables	€th	211	-9.74	-553	-179
of which increases/(decr.) in other curr. liab.	€th	-217	0.00	0.00	0.00
Actual dividends received from equity holdings	€th	0.00	0.00	0.00	0.00
Paid taxes	€th	0.00	-212	-335	-401
Exceptional items	€th				
Other operating cash flows	€th	-533	-800	-800	-600
<b>Total operating cash flows</b>	<b>€th</b>	<b>2,235</b>	<b>2,597</b>	<b>3,254</b>	<b>3,446</b>
Capital expenditure	€th	-870	-1,172	-1,300	-1,360
Capex as a % of depreciation & amort.	%	54.4	60.0	60.0	60.0
Net investments in shares	€th	0.00			
Other investment flows	€th	0.00			
<b>Total investment flows</b>	<b>€th</b>	<b>-870</b>	<b>-1,172</b>	<b>-1,300</b>	<b>-1,360</b>
Net interest expense	€th	-106	-100	-100	-100
of which cash interest expense	€th	-106	-95.0	-94.4	-94.2
Dividends (parent company)	€th	0.00	0.00	0.00	0.00
Dividends to minorities interests	€th	0.00	0.00	0.00	0.00
<b>New shareholders' equity</b>	<b>€th</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
of which (acquisition) release of treasury shares	€th	0.00	0.00	0.00	0.00
(Increase)/decrease in net debt position	€th	-1,302	-338	-288	-173
Other financial flows	€th				
<b>Total financial flows</b>	<b>€th</b>	<b>-1,408</b>	<b>-433</b>	<b>-383</b>	<b>-267</b>
Change in cash position	€th	-43.0	992	1,571	1,819
<b>Change in net debt position</b>	<b>€th</b>	<b>1,259</b>	<b>1,330</b>	<b>1,860</b>	<b>1,992</b>
Free cash flow (pre div.)	€th	1,259	1,325	1,854	1,986
<b>Operating cash flow (clean)</b>	<b>€th</b>	<b>2,235</b>	<b>2,597</b>	<b>3,254</b>	<b>3,446</b>
Reinvestment rate (capex/tangible fixed assets)	%	72.0	53.9	59.7	62.5



## Keyware (Buy)

## Balance Sheet

		12/21A	12/22E	12/23E	12/24E
Goodwill	€th	7,762	8,041	8,041	8,041
Other intangible assets	€th	4,450	5,797	5,797	5,797
<b>Total intangible</b>	<b>€th</b>	<b>12,212</b>	<b>13,838</b>	<b>13,838</b>	<b>13,838</b>
Tangible fixed assets	€th	1,209	2,177	2,177	2,177
Financial fixed assets (part of group strategy)	€th	168	150	150	150
Other financial assets (investment purpose mainly)	€th				
<b>WCR</b>	<b>€th</b>	<b>16,694</b>	<b>17,486</b>	<b>18,504</b>	<b>19,827</b>
<i>of which trade &amp; receivables (+)</i>	<i>€th</i>	<i>17,705</i>	<i>18,383</i>	<i>18,751</i>	<i>19,810</i>
<i>of which inventories (+)</i>	<i>€th</i>	<i>649</i>	<i>753</i>	<i>851</i>	<i>935</i>
<i>of which payables (+)</i>	<i>€th</i>	<i>1,660</i>	<i>1,650</i>	<i>1,098</i>	<i>919</i>
<i>of which other current liabilities (+)</i>	<i>€th</i>				
Other current assets	€th	3,075	1,000	1,000	1,000
<i>of which tax assets (+)</i>	<i>€th</i>	<i>3,075</i>	<i>2,983</i>	<i>2,983</i>	<i>2,983</i>
<b>Total assets (net of short term liabilities)</b>	<b>€th</b>	<b>33,358</b>	<b>34,650</b>	<b>35,668</b>	<b>36,991</b>
<b>Ordinary shareholders' equity (group share)</b>	<b>€th</b>	<b>27,892</b>	<b>31,499</b>	<b>34,373</b>	<b>37,684</b>
Minority interests	€th				
<b>Provisions for pensions</b>	<b>€th</b>		<b>158</b>	<b>162</b>	<b>166</b>
Other provisions for risks and liabilities	€th	332			
Deferred tax liabilities	€th	2,811	2,000	2,000	2,000
Other liabilities	€th				
<b>Net debt / (cash)</b>	<b>€th</b>	<b>2,323</b>	<b>993</b>	<b>-867</b>	<b>-2,858</b>
<b>Total liabilities and shareholders' equity</b>	<b>€th</b>	<b>33,358</b>	<b>34,650</b>	<b>35,668</b>	<b>36,991</b>
<b>Average net debt / (cash)</b>	<b>€th</b>	<b>2,937</b>	<b>1,658</b>	<b>63.4</b>	<b>-1,863</b>

## EV Calculations

		12/21A	12/22E	12/23E	12/24E
<b>EV/EBITDA(R)</b>	<b>x</b>	<b>5.66</b>	<b>5.78</b>	<b>4.28</b>	<b>3.67</b>
<b>EV/EBIT</b>	<b>x</b>	<b>9.20</b>	<b>10.4</b>	<b>7.15</b>	<b>6.04</b>
<b>EV/Sales</b>	<b>x</b>	<b>1.47</b>	<b>1.30</b>	<b>1.07</b>	<b>0.93</b>
EV/Invested capital	x	0.86	0.76	0.67	0.59
Market cap	€th	23,597	24,440	24,015	24,015
+ Provisions (including pensions)	€th	332	158	162	166
+ Unrecognised actuarial losses/(gains)	€th	0.00	0.00	0.00	0.00
+ Net debt at year end (ex Right-of-use from 2019)	€th	2,323	993	-867	-2,858
+ Right-of-use (from 2019)/Leases debt equivalent	€th	0.00	0.00	0.00	0.00
- Financial fixed assets (fair value) & Others	€th	168	150	150	150
+ Minority interests (fair value)	€th	0.00	0.00	0.00	0.00
<b>= Enterprise Value</b>	<b>€th</b>	<b>26,084</b>	<b>25,441</b>	<b>23,160</b>	<b>21,172</b>

## Keyware (Buy)

## Per Share Data

		12/21A	12/22E	12/23E	12/24E
<b>Adjusted EPS (bfr goodwill amort. &amp; dil.)</b>	€	<b>0.12</b>	<b>0.09</b>	<b>0.12</b>	<b>0.13</b>
<i>Growth in EPS</i>	%	<i>56.5</i>	<i>-25.7</i>	<i>31.4</i>	<i>7.01</i>
Reported EPS	€	0.02	0.03	0.04	0.05
<b>Net dividend per share</b>	€	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Free cash flow per share	€	0.05	0.06	0.08	0.08
Operating cash flow per share	€	0.09	0.11	0.14	0.15
Book value per share	€	1.18	1.34	1.46	1.60
<b>Number of ordinary shares</b>	Th	<b>23,544</b>	<b>23,544</b>	<b>23,544</b>	<b>23,544</b>
Number of equivalent ordinary shares (year end)	Th	23,544	23,544	23,544	23,544
Number of shares market cap.	Th	23,544	23,544	23,544	23,544
Treasury stock (year end)	Th				
Number of shares net of treasury stock (year end)	Th	23,544	23,544	23,544	23,544
<b>Number of common shares (average)</b>	Th	<b>23,544</b>	<b>23,544</b>	<b>23,544</b>	<b>23,544</b>
Conversion of debt instruments into equity	Th	0.00	0.00	0.00	0.00
Settlement of cashable stock options	Th				
Probable settlement of non mature stock options	Th				
Other commitments to issue new shares	Th				
Increase in shares outstanding (average)	Th	0.00	0.00	0.00	0.00
<b>Number of diluted shares (average)</b>	Th	<b>23,544</b>	<b>23,544</b>	<b>23,544</b>	<b>23,544</b>
Goodwill per share (diluted)	€	0.10	0.06	0.08	0.08
EPS after goodwill amortisation (diluted)	€	0.02	0.03	0.04	0.05
EPS before goodwill amortisation (non-diluted)	€	0.02	0.03	0.04	0.05
<b>Payout ratio</b>	%	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Capital payout ratio (div +share buy back/net income)</b>	%	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	

## Funding - Liquidity

		12/21A	12/22E	12/23E	12/24E
EBITDA	€th	4,610	4,400	5,407	5,769
Funds from operations (FFO)	€th	3,971	3,294	4,178	4,674
<b>Ordinary shareholders' equity</b>	<b>€th</b>	<b>27,892</b>	<b>31,499</b>	<b>34,373</b>	<b>37,684</b>
Gross debt	€th	1,560	1,222	934	761
o/w Less than 1 year - Gross debt	€th	721	721	433	260
o/w 1 to 5 year - Gross debt	€th	839	501	501	501
of which Y+2	€th	0.00	501	501	501
of which Y+3	€th	0.00	0.00	0.00	0.00
of which Y+4	€th	0.00	0.00	0.00	0.00
of which Y+5	€th	0.00	0.00	0.00	0.00
+ Gross Cash	€th	-763	229	1,800	3,619
<b>= Net debt / (cash)</b>	<b>€th</b>	<b>2,323</b>	<b>993</b>	<b>-867</b>	<b>-2,858</b>

Bank borrowings	€th	1,560	1,222	934	761
Financial leases liabilities	€th	0.00	0.00	0.00	0.00
Other financing	€th	0.00	0.00	0.00	0.00

Gearing (at book value)	%	10.5	5.26	0.18	-4.94
Equity/Total asset (%)	%	83.6	90.9	96.4	102
Adj. Net debt/EBITDA(R)	x	0.50	0.23	-0.16	-0.50
Adjusted Gross Debt/EBITDA(R)	x	0.41	0.31	0.20	0.16
Adj. gross debt/(Adj. gross debt+Equity)	%	6.35	4.20	3.09	2.40
Ebit cover	x	26.7	25.8	34.3	37.2
FFO/Gross Debt	%	210	239	381	505
FFO/Net debt	%	171	332	-482	-164
FCF/Adj. gross debt (%)	%	66.5	96.0	169	214
(Gross cash+ "cash" FCF+undrawn)/ST debt	x	0.69	2.15	8.45	21.6
"Cash" FCF/ST debt	x	1.75	1.84	4.30	7.67

## ROE Analysis (Dupont's Breakdown)

		12/21A	12/22E	12/23E	12/24E
Tax burden (Net income/pretax pre excp income)	x	1.43	0.75	0.75	0.75
EBIT margin (EBIT/sales)	%	2.49	4.84	6.65	7.52
Assets rotation (Sales/Avg assets)	%	52.4	57.5	61.6	62.4
Financial leverage (Avg assets /Avg equity)	x	1.22	1.15	1.07	1.01
<b>ROE</b>	<b>%</b>	<b>1.73</b>	<b>2.14</b>	<b>3.05</b>	<b>3.34</b>
ROA	%	1.46	2.83	4.18	4.75

## Shareholder's Equity Review (Group Share)

		12/21A	12/22E	12/23E	12/24E
Y-1 shareholders' equity	€th	27,239	27,892	31,499	34,373
+ Net profit of year	€th	478	635	1,006	1,203
- Dividends (parent cy)	€th	0.00	0.00	0.00	0.00
+ Additions to equity	€th	0.00	0.00	0.00	0.00
o/w reduction (addition) to treasury shares	€th	0.00	0.00	0.00	0.00
- Unrecognised actuarial gains/(losses)	€th	0.00	0.00	0.00	0.00
+ Comprehensive income recognition	€th	175	2,972	1,868	2,108
<b>= Year end shareholders' equity</b>	<b>€th</b>	<b>27,892</b>	<b>31,499</b>	<b>34,373</b>	<b>37,684</b>

## Staffing Analytics

		12/21A	12/22E	12/23E	12/24E
Sales per staff	€th	276	305	338	354
Staff costs per employee	€th	-49.1	-49.1	-49.1	-49.1
Change in staff costs	%	12.8	0.00	0.00	0.00
Change in unit cost of staff	%	32.2	0.00	0.00	0.00
Staff costs/(EBITDA+Staff costs)	%	40.6	41.7	36.8	35.3

<b>Average workforce</b>	<b>unit</b>	<b>64.0</b>	<b>64.0</b>	<b>64.0</b>	<b>64.0</b>
Europe	unit	60.0	75.0	75.0	75.0
North America	unit	0.00	0.00	0.00	0.00
South Americas	unit	0.00	0.00	0.00	0.00
Asia	unit	0.00	0.00	0.00	0.00
Other key countries	unit	0.00	0.00	0.00	0.00
<b>Total staff costs</b>	<b>€th</b>	<b>-3,145</b>	<b>-3,145</b>	<b>-3,145</b>	<b>-3,145</b>
Wages and salaries	€th	-3,145	-3,145	-3,145	-3,145
Pension related costs	€th		0.00	0.00	0.00
Benefits related payments	€th		0.00	0.00	

## Divisional Breakdown Of Revenues

		12/21A	12/22E	12/23E	12/24E
<b>Total sales</b>	<b>€th</b>	<b>17,689</b>	<b>19,539</b>	<b>21,662</b>	<b>22,660</b>
Terminals	€th	7,072	6,365	6,047	5,140
Authorisations	€th	5,995	7,494	9,367	10,772
Software	€th	4,897	5,681	6,249	6,748
Corporate	€th				
Other	€th	-275			

## Divisional Breakdown Of Earnings

		12/21A	12/22E	12/23E	12/24E
<b>EBIT Analysis</b>					
Terminals	€th	566	509	484	411
Authorisations	€th	749	937	1,171	1,347
Software	€th	-392	-398	-437	-472
Corporate	€th	-804	-606	-407	-339
Other/cancellations	€th				
<b>Total</b>	<b>€th</b>	<b>119</b>	<b>442</b>	<b>811</b>	<b>947</b>
EBIT margin	%	0.67	2.26	3.74	4.18

## Revenue Breakdown By Country

		12/21A	12/22E	12/23E	12/24E
Belgium	%	86.0	86.0		
France	%	12.0	12.0		
Other	%	2.00	2.00		

## Keyware (Buy)

## ROCE

		12/21A	12/22E	12/23E	12/24E
ROCE (NOPAT+lease exp. *(1-tax))/(net) cap employed adjusted	%	6.55	5.10	6.56	6.83
CFROIC	%	4.16	3.94	5.35	5.52
Goodwill	€th	7,762	8,041	8,041	8,041
Accumulated goodwill amortisation	€th	0.00	0.00	0.00	0.00
All intangible assets	€th	4,450	5,797	5,797	5,797
Accumulated intangible amortisation	€th	0.00	0.00	0.00	0.00
Financial hedges (LT derivatives)	€th	0.00	0.00	0.00	0.00
Capitalised R&D	€th	0.00	0.00	0.00	0.00
Rights of use/ Capitalised leases	€th	0.00	0.00	0.00	0.00
Other fixed assets	€th	1,209	2,177	2,177	2,177
Accumulated depreciation	€th	0.00	0.00	0.00	0.00
WCR	€th	16,694	17,486	18,504	19,827
Other assets	€th	168	150	150	150
Unrecognised actuarial losses/(gains)	€th	0.00	0.00	0.00	0.00
<b>Capital employed after deprec. (Invested capital)</b>	<b>€th</b>	<b>30,283</b>	<b>33,650</b>	<b>34,668</b>	<b>35,991</b>
Capital employed before depreciation	€th	30,283	33,650	34,668	35,991

## Divisional Breakdown Of Capital Employed

		12/21A	12/22E	12/23E	12/24E
Terminals	€th				
Authorisations	€th				
Software	€th				
Corporate	€th				
Other	€th	30,283	33,650	34,668	35,991
<b>Total capital employed</b>	<b>€th</b>	<b>30,283</b>	<b>33,650</b>	<b>34,668</b>	<b>35,991</b>

## Pension Risks

### Summary Of Pension Risks

		12/21A	12/22E	12/23E	12/24E
<b>Pension ratio</b>	%	<b>0.72</b>	<b>0.50</b>	<b>0.47</b>	<b>0.44</b>
Ordinary shareholders' equity	€th	27,892	31,499	34,373	37,684
<b>Total benefits provisions</b>	€th	<b>201</b>	<b>158</b>	<b>162</b>	<b>166</b>
<i>of which funded pensions</i>	€th	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
<i>of which unfunded pensions</i>	€th	<i>201</i>	<i>158</i>	<i>162</i>	<i>166</i>
<i>of which benefits / health care</i>	€th		<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Unrecognised actuarial (gains)/losses	€th	0.00	0.00	0.00	0.00
<i>Company discount rate</i>	%	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Normalised recomputed discount rate	%		2.50		
<i>Company future salary increase</i>	%	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Normalised recomputed future salary increase	%		2.00		
<i>Company expected rate of return on plan assets</i>	%	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
Normalised recomputed expd rate of return on plan assets	%		0.00		
<b>Funded : Impact of actuarial assumptions</b>	€th		<b>0.00</b>		
<b>Unfunded : Impact of actuarial assumptions</b>	€th		<b>19.3</b>		

### Geographic Breakdown Of Pension Liabilities

		12/21A	12/22E	12/23E	12/24E
US exposure	%				
UK exposure	%				
Euro exposure	%				
Nordic countries	%				
Switzerland	%				
Other	%	100	100	100	100
Total	%	100	100	100	100

### Balance Sheet Implications

		12/21A	12/22E	12/23E	12/24E
Funded status surplus / (deficit)	€th	0.00	0.00	0.00	0.00
Unfunded status surplus / (deficit)	€th	-201	-225	-231	-237
Total surplus / (deficit)	€th	-201	-225	-231	-237
<b>Total unrecognised actuarial (gains)/losses</b>	€th	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Provision (B/S) on funded pension	€th	0.00	0.00	0.00	0.00
Provision (B/S) on unfunded pension	€th	201	158	162	166
Other benefits (health care) provision	€th		0.00	0.00	0.00
<b>Total benefit provisions</b>	€th	<b>201</b>	<b>158</b>	<b>162</b>	<b>166</b>

### P&L Implications

		12/21A	12/22E	12/23E	12/24E
Funded obligations periodic costs	€th	0.00	0.00	0.00	0.00
Unfunded obligations periodic costs	€th	0.00	-5.03	-5.63	-5.77
<b>Total periodic costs</b>	€th	<b>0.00</b>	<b>-5.03</b>	<b>-5.63</b>	<b>-5.77</b>
<i>of which incl. in labour costs</i>	€th	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>
<i>of which incl. in interest expenses</i>	€th	<i>0.00</i>	<i>-5.03</i>	<i>-5.63</i>	<i>-5.77</i>

## Keyware (Buy)

## Funded Obligations

		12/21A	12/22E	12/23E	12/24E
<b>Balance beginning of period</b>	€th	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Current service cost	€th		0.00	0.00	0.00
Interest expense	€th		0.00	0.00	0.00
Employees' contributions	€th				
Impact of change in actuarial assumptions	€th		0.00	0.00	0.00
<i>of which impact of change in discount rate</i>	€th		0.00		
<i>of which impact of change in salary increase</i>	€th		0.00		
<b>Changes to scope of consolidation</b>	€th				
Currency translation effects	€th				
Pension payments	€th				
Other	€th				
<b>Year end obligation</b>	€th	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

## Plan Assets

		12/21A	12/22E	12/23E	12/24E
<b>Value at beginning</b>	€th		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Company expected return on plan assets	€th		0.00	0.00	0.00
Actuarial gain /(loss)	€th		0.00	0.00	0.00
Employer's contribution	€th	0.00	0.00	0.00	0.00
Employees' contributions	€th	0.00	0.00	0.00	0.00
Changes to scope of consolidation	€th				
Currency translation effects	€th				
Pension payments	€th	0.00	0.00	0.00	0.00
Other	€th				
<b>Value end of period</b>	€th	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
Actual and normalised future return on plan assets	€th	0.00	0.00	0.00	0.00

## Unfunded Obligations

		12/21A	12/22E	12/23E	12/24E
<b>Balance beginning of period</b>	€th	<b>201</b>	<b>201</b>	<b>225</b>	<b>231</b>
Current service cost	€th		0.00	0.00	0.00
Interest expense	€th		5.03	5.63	5.77
Employees' contributions	€th				
Impact of change in actuarial assumptions	€th		19.3	0.00	0.00
<i>of which Impact of change in discount rate</i>	€th		-78.3		
<i>of which Impact of change in salary increase</i>	€th		97.7		
Changes to scope of consolidation	€th				
Currency translation effects	€th				
Pension payments	€th				
Other	€th				
<b>Year end obligation</b>	€th	<b>201</b>	<b>225</b>	<b>231</b>	<b>237</b>

## Fundamental Opinion

It is implicit that recommendations are made in good faith but should not be regarded as the sole source of advice.

Recommendations are geared to a “**value**” approach.

Valuations are computed from the point of view of a **secondary market minority holder** looking at a medium term (say 6 months) performance.

Valuation tools are built around the concepts of **transparency**, all underlying figures are accessible, and **consistency**, same methodology whichever the stock, allowing for differences in nature between financial and non financial stocks. A stock with a target price below its current price should not and will not be regarded as an Add or a Buy.

Recommendations are based on target prices with no allowance for dividend returns. The thresholds for the four recommendation levels may change from time to time depending on market conditions. Thresholds are defined as follows, ASSUMING long risk free rates remain in the 2-5% region.

Recommendation	Low Volatility 10 < VIX index < 30	Normal Volatility 15 < VIX index < 35	High Volatility 35 < VIX index
Buy ●	More than 15% upside	More than 20% upside	More than 30% upside
Add ●	From 5% to 15%	From 5% to 20%	From 10% to 30%
Reduce ●	From -10% to 5%	From -10% to 5%	From -10% to 10%
Sell ●	Below -10%	Below -10%	Below -10%

There is deliberately no “neutral” recommendation. The principle is that there is no point investing in equities if the return is not at least the risk free rate (and the dividend yield which again is not allowed for).

Although recommendations are automated (a function of the target price whenever a new equity research report is released), the management of AlphaValue intends to maintain global consistency within its universe coverage and may, from time to time, decide to change global parameters which may affect the level of recommendation definitions and /or the distribution of recommendations within the four levels above. For instance, lowering the risk premium in a gloomy context may increase the proportion of positive recommendations.



## Valuation

Valuation processes have been organized around transparency and consistency as primary objectives.

Stocks belong to different categories that recognise their main operating features : Banks, Insurers and Non Financials.

Within those three universes, the valuation techniques are the same and in relation to the financial data available.

The weighting given to individual valuation techniques is managed centrally and may be changed from time to time. As a rule, all stocks of a similar profile are valued using equivalent weighting of the various valuation techniques. This is for obvious consistency reasons.

Within the very large universe of Non Financials, there are in effect 4 sub-categories of weightings to cater for subsets: 1) 'Mainstream' stocks; 2) 'Holding companies' where the stress is on NAV measures; 3) 'Growth' companies where the stress is on peer based valuations; 4) 'Loss making sectors' where peers review is essentially pointing nowhere (ex: Bio techs). The bulk of the valuation is then built on DCF and NAV, in effect pushing back the time horizon.

Valuation Issue	Normal industrials	Growth industrials	Holding company	Loss runners	Bank	Insurers
DCF	35%	35%	10%	40%	0%	0%
NAV	20%	20%	55%	40%	50%	15%
PE	10%	10%	10%	5%	10%	20%
EV/EBITDA	20%	20%	0%	5%	0%	0%
Yield	10%	10%	20%	5%	10%	15%
Book	5%	5%	5%	5%	10%	10%
Banks' intrinsic method	0%	0%	0%	0%	10%	0%
Embedded Value	0%	0%	0%	0%	0%	40%
Mkt Cap/Gross Operating Profit	0%	0%	0%	0%	10%	0%