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Opinion	Buy
Upside (%)	448
Price (€)	1.8
Target Price (€)	9.86
Bloomberg Code	ALIKO FP
Market Cap (€M)	17.1
Enterprise Value (€M)	18.9
Momentum	NEGATIVE
Sustainability	6/10

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Conflicts of interest

Corporate broking	No
Trading in corporate shares	No
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Advice to corporate	Yes
Research paid for by corporate	Yes
Corporate access	No
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Client of AlphaValue Research	No

Ikonisys

A 'fully-automated' oncology diagnostic play

PROS

- True 'walk-away' diagnostic solution Ikoniscope20 should gain market share as manual/semi-automated workflows become obsolete in the fully-automated era; addressable/under-penetrated markets growing at high-single-digit rate
- Increasing proportion of high-margin recurring revenue in the mix should result in higher earnings visibility and stable FCF generation in the mid-term; test menu expansion is key for the future
- Management team strengthened to make Ikoniscope20 a commercial success in the FISH oncology and CTC/liquid biopsy space; significant upside potential from immuno-oncology and infectious diseases therapeutic areas

CONS

- Commercial footprint needs to be ramped up to accelerate the adoption of the new platform, thereby exposing Ikonisys to financing and execution risk
- Industry heavyweights dominate the manual/semi-automated FISH market and entering into their accounts won't be easy; hospital capex budgets are constrained due to COVID-19 and could impact Ikoniscope20's adoption
- As the industry moves towards more technologically-sophisticated products like next-generation sequencing, demand for FISH assays may come under pressure

KEY DATA	12/19A	12/20A	12/21E	12/22E	12/23E
Adjusted P/E (x)	-40.0	-32.1	ns	-6.03	-31.9
Dividend yield (%)	0.00	0.00	0.00	0.00	0.00
EV/EBITDA(R) (x)	ns	ns	ns	-6.72	-54.5
Adjusted EPS (€)	-0.14	-0.18	-0.02	-0.30	-0.06
Growth in EPS (%)	n/a	n/a	n/a	n/a	n/a
Dividend (€)	0.00	0.00	0.00	0.00	0.00
Sales (€M)	0.62	0.39	0.35	4.14	7.99
Other margin (%)	94.7	97.9	75.0	47.1	57.3
Attributable net profit (€M)	-1.26	-1.57	-0.18	-2.83	-0.54
ROE (after tax) (%)	-21.2	-27.7	-2.40	-36.3	-8.76
Gearing (%)		16.1	-2.75	2.17	44.1

Detailed financials at the end of this report

Key Ratios

		12/20A	12/21E	12/22E	12/23E
Adjusted P/E	x	-32.1	ns	-6.03	-31.9
EV/EBITDA	x	ns	ns	-6.72	-54.5
P/Book	x	9.37	3.27	2.67	2.92
Dividend yield	%	0.00	0.00	0.00	0.00
Free Cash Flow Yield	%	-8.08	-4.21	-20.6	-8.00
ROE (after tax)	%	-27.7	-2.40	-36.3	-8.76
ROCE	%	1.07	-2.02	-22.7	-2.79
Net debt/EBITDA	x	6.43	7.06	-0.68	-8.78

Consolidated P&L

		12/20A	12/21E	12/22E	12/23E
Sales	€M	0.39	0.35	4.14	7.99
EBITDA	€M	0.17	-0.23	-2.81	-0.37
Underlying operating profit	€M	0.10	-0.23	-2.81	-0.38
Operating profit (EBIT)	€M	0.20	-0.13	-2.81	-0.38
Net financial expenses	€M	-1.77	-0.04	-0.01	-0.15
Pre-tax profit before exceptional items	€M	-1.57	-0.17	-2.82	-0.53
Corporate tax	€M	-0.01	0.00	-0.01	0.00
Attributable net profit	€M	-1.57	-0.18	-2.83	-0.54
Adjusted attributable net profit	€M	-1.57	-0.18	-2.83	-0.54

Cashflow Statement

		12/20A	12/21E	12/22E	12/23E
Total operating cash flows	€M	-2.31	-1.22	-3.45	-1.11
Capital expenditure	€M	0.00	-0.01	-0.06	-0.10
Total investment flows	€M	0.00	-0.01	-0.06	-0.10
Dividends (parent company)	€M				
New shareholders' equity	€M	0.09	4.00	0.00	0.00
Total financial flows	€M	2.03	3.01	3.69	-0.25
Change in net debt position	€M	-2.17	2.73	-3.51	-1.36
Free cash flow (pre div.)	€M	-4.08	-1.27	-3.51	-1.36

Balance Sheet

		12/20A	12/21E	12/22E	12/23E
Goodwill	€M	4.42	4.42	4.42	4.42
Total intangible	€M	7.92	7.92	7.92	7.92
Tangible fixed assets	€M	0.00	0.01	0.07	0.16
Right-of-use	€M	0.08	0.08	0.08	0.08
WCR	€M	-1.03	0.05	0.68	1.41
Total assets (net of short term liabilities)	€M	7.01	8.10	8.79	9.62
Ordinary shareholders' equity (group share)	€M	5.39	9.21	6.38	5.85
Provisions for pensions	€M	0.00	0.00	0.00	0.00
Net debt / (cash)	€M	1.11	-1.62	1.90	3.26
Total liabilities and shareholders' equity	€M	7.01	8.10	8.79	9.62

Per Share Data

		12/20A	12/21E	12/22E	12/23E
Adjusted EPS (bfr goodwill amort. & dil.)	€	-0.18	-0.02	-0.30	-0.06
Net dividend per share	€	0.00	0.00	0.00	0.00
Free cash flow per share	€	-0.46	-0.14	-0.37	-0.14
Book value per share	€	0.61	0.97	0.67	0.62
Number of diluted shares (average)	Mio	8.78	9.13	9.48	9.48

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Businesses & Trends

Company overview

Incorporated in 1999, Ikonisys is a diagnostic firm developing instruments and software for oncology/ cancer and prenatal testing/ applications. It operates in the highly concentrated c.\$69bn global in-vitro diagnostic (IVD) market (dominated by heavyweights like Roche Diagnostics, Abbot Laboratories and Siemens) and is trying to establish its niche in the two segments of the market – FISH (fluorescence in situ hybridisation; market size: \$1.2bn) and CTC (circulating tumour cells; market size: \$0.5bn).

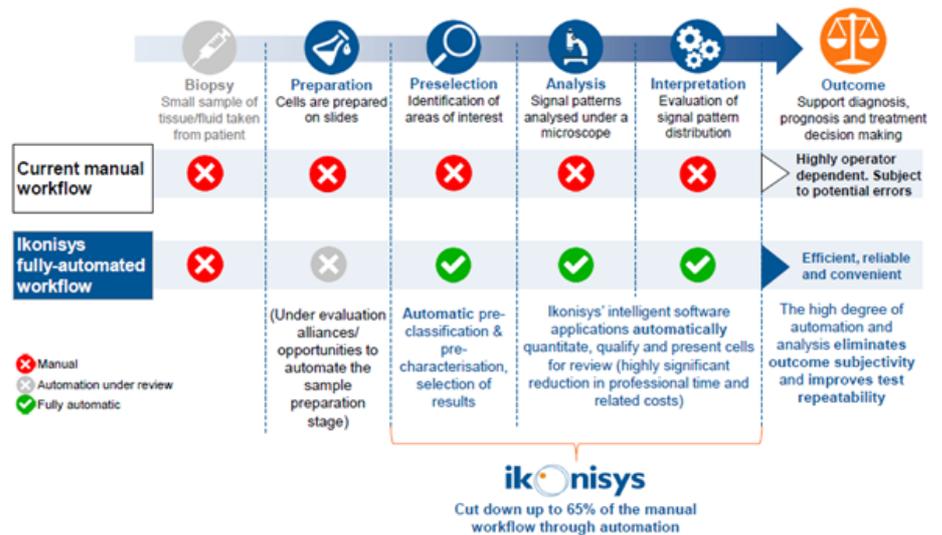
During the first 15 years of its existence, Ikonisys had two strategic shifts (for more details about the company's history, refer to the Worth Knowing section), though for the past five years, it has largely been an R&D focused organisation. Importantly, the company has now developed a potential 'game-changing' product, Ikoniscope20, and the emphasis is thus shifting towards commercialisation. Like other diagnostic players, Ikonisys will also operate under the 'razor blade' business model, wherein the instruments/ platforms to conduct tests will be placed with the laboratories/ hospitals under software and consumables supply agreement. As a consequence, software applications, reagents kits/ consumables and maintenance services – all of which are recurring in nature – are expected to form the main revenue stream in the mid-term.

Notably, the 'automated' Ikoniscope Robotic Digital Microscope (in market since 2006) was the key platform in the company's portfolio until now and helped generate revenue of €385k, largely from service /maintenance contracts, in FY20 (vs. FY19: €617k; FY20 weighed down by closure of business by one customer). In FY20, majority of the revenue (c.90%) was derived from the US while the remaining originated from Europe, mainly Italy.

Ikoniscope – first-gen automated product

While majority of the marketed platforms within the industry offered manual workflows, Ikoniscope had its USP – it offered an automated integrated ecosystem (including slide handling, data capture and storage and remote review) which allowed for early and accurate detection, analysis and interpretation of rare cells. Interestingly, Ikoniscope reduced c.65% of the manual workflow through automation, thereby improving the laboratory's productivity and efficiency.

Improved laboratory's workflow



Source: Ikonisys Presentation

Notably, the Ikoniscope platform runs with the Ikonisoft software which offers a range of specific applications – these applications/ tests were initially developed for non-invasive prenatal diagnosis and following its success, it was extended to cover various cancer types (one of the fastest growing therapeutic areas) – bladder, breast, prostate, lung etc. Not to forget, Ikoniscope’s diagnostic tests are based on the FISH technique which allows for the rapid identification of rare cells in solid tissues as well as blood.

Until now, Ikonisys has installed a total of 46 units of Ikoniscope in the US and Europe (though the installed base still paying maintenance is lower) and over the past five years, the focus was to technically upgrade and evolve the platform. Post this prolonged period of fruition and rigorous effort of the R&D team, Ikonisys is now ready with its next-gen product, Ikoniscope20 (first instrument sold in Q2 21).

Ikoniscope20 – the next-gen ‘fully-automated’ product

Building-up on its proven platform, Ikonisys recently launched a new instrument, Ikoniscope20 – it offers high resolution imaging (ensures better analysis) and higher throughput as compared to the previous device and comes in a much smaller size (ensures better handling and maintenance). Importantly, automation has also moved a notch higher – improved slide-handling and software, better remote access and better analysis and interpretation – and Ikoniscope20 is positioned as a fully-automated ‘walk-away’ solution that can be left unattended from start to finish. These features help overcome human error in testing and ensure higher consistency and at the same time, reduce the burden on pathologists, who are generally over-stretched. Like its predecessor, Ikoniscope20 has broad applications in FISH-based tests for solid tissues and additionally, it is suitable for CTC/ liquid biopsies as well. Note that four software applications for different cancer types are already compatible with this new device and another two are likely to be integrated soon.

The value proposition

Currently, Leica (c.18% share), Thermo Fisher (c.15%) and PerkinElmer (c.13%) dominate the FISH market with their manual or semi-automated products. Such solutions are pathologist-dependent and thus time-consuming in nature, making it difficult to process higher volumes with accuracy. Given the shortage of pathologists, this is a major bottleneck for industry growth, indicating a clear need for fully automated solutions. This is where Ikoniscope20 comes into play – the true ‘walk-away’ feature enables the pathologists to deliver more accurate results in less time. Given the significant under-penetration of fully-automated solutions within the FISH market, we believe that Ikonisys should gain significant market share from manual/ semi-automated workflows, which should become obsolete in the automated era.

In terms of competition in the fully-automated space, Applied Spectral Imaging (c.4% share), BioView (c.1% share) and MetaSystems (c.1% share) offer such solutions but they have different levels of data interpretation. Also, they require a dark-room which is not the case with Ikoniscope20 (this helps improve lab space utilisation). Thus, we believe that Ikonisys has a competitive edge. As far as competition from the bigger players is concerned, we are of the view that they are less likely to spend their money on the development of fully-automated FISH solutions as the market is quite small as per their standards and their focus is on other faster growing markets within molecular diagnostics. Also, considering that developing a fully-automated solution takes years, we don't foresee any major competitive threat for Ikonisys in the mid-term.

FISH – an established market

FISH is a laboratory technique to detect a specific DNA sequence and can identify minor genetic changes that are usually missed under the microscope using the traditional cell gene technique. Given this advantage, FISH has broad applications in the field of oncology – it facilitates cancer diagnosis, provides information on prognosis and helps determine response to different treatments. Interestingly, the global FISH market has grown at a CAGR of 7% during FY14-19 (to reach \$1.2bn) and given the increasing incidence of cancer and growing demand for better diagnostic products, momentum is set to accelerate – market expected to grow at a CAGR of 8% to reach \$1.8bn by FY24. Geographically, North America (c.44% share) will continue to be the biggest market followed by Europe (c.28% share) while Asia-Pacific (c.18% share) is likely to be the fastest-growing.

CTC – a high growth potential market

While FISH-based tests for solid tissues should be the mainstay business for Ikonisys 20, the platform can be used to analyse CTC in patient's blood as well. Note that CTC/ liquid biopsies are non-invasive and cost effective in nature (as compared to the painful and inconvenient surgical biopsies) and given these benefits, the market offers immense growth potential – CTC market is expected to grow at 25% p.a. to reach \$1.6bn by FY24.

To tap this huge opportunity, Ikonisys has signed an agreement with Israel-based Sheba Medical Center to jointly-develop cancer specific CTC tests for

clinical use, including treatment monitoring and companion diagnostic. Note that Ikoniscope20 can solve key challenges related with currently-marketed liquid biopsy platforms – it examines large number of cells (to pick abnormalities) and requires no enrichment (of any specific cell marker) – and thus it could have a competitive edge. If Ikonisys is successful in this field, it could be a game-changer and could provide significant upside potential in the long-term.

Commercialisation plan put in place

With the launch of Ikoniscope20, management's emphasis has now shifted towards commercialisation – plan is to tap 1,450 mid-to-large sized laboratories in the medium term. Out of the >7,000 labs in the US, Ikonisys will target 800 labs (480 hospital-based and 320 commercial labs) with the highest rollout targeted during FY22-25. In Europe, the target market is 650 labs (out of c.4,000), of which 400 are hospital-based. Note that management will also focus on labs that are already performing FISH tests manually and wants to improve their workflow.

To widen Ikoniscope20's commercial footprint, the company will use a mix of direct and distributor-based sales channels. In the initial phase (FY21-23), focus will be on direct commercialisation in the North Eastern and South Eastern states of the US and in Germany, Italy and France – emphasis will be on converting existing Ikoniscope users into Ikoniscope20 customers and work with key opinion leaders to develop 2-3 reference accounts per country. Thereafter, direct commercialisation should be established in eight US regions and in the UK and Spain. Moreover, Ikonisys will develop a distribution network in Canada, South America and remaining EU countries. In the mid-term, focus will be on entering the high-growth potential Asia-Pacific, Middle-East and Latin America markets via distributors. Given the underserved markets, growth opportunities are immense and considering Ikoniscope20's USP, we anticipate faster adoption of the platform in the mid-term.

Ikoniscope AI – another platform in the making

Although Ikoniscope20 is still new to the market, work on the third-generation Ikoniscope platform has already started. Ikoniscope AI will build further on the Ikoniscope20 platform and include a host of artificial intelligence (AI) capabilities – it will make use of big data analytics and self-learning AI algorithms for better data interpretation. Note that Trentino Innovation Hub (University of Trento, Italy) and the Foundation Bruno Kessler (mechatronics and AI research institute in Italy) are working on the software design of Ikoniscope AI and the platform is expected to hit the market in FY23. Considering that Ikonisys would just need to demonstrate equivalence of Ikoniscope AI to its predecessor, getting regulatory approvals (CE-mark and FDA nod) should not be a concern in our view.

Future target indications

While oncology should remain the lynchpin business for Ikoniscope20/AI, the platform could have additional potential in immuno-oncology and infectious disease therapeutic areas in the mid/ long term. Remember that FISH is a

sensitive/ rapid method to detect bacteria/ virus and could have applications in infectious disease testing – evaluation for the usage of the platform for leprosy, tuberculosis and legionella is already under way. Detection of the presence of virus can be relevant in oncology as well, particularly for virus associated cancers (like HPV in cervical cancer).

To explore these therapeutic areas, Ikonisys has teamed up with Neag Comprehensive Cancer Center (University of Connecticut). Also, it recently entered into MoU with Ehsan Ghorani, a researcher at Imperial College of London, to study the platform's usage for common medical conditions (such as infectious disease, cardiovascular, and connective tissue disorder) and monitoring of CTC. However, given the stiff competition in the infectious disease space – the likes of Roche Diagnostics, bioMerieux and DiaSorin rule the roost – establishing a foothold won't be easy for Ikonisys.

Key business risks

If Ikoniscope20 fails to gain scale, it could be a deal-breaker for Ikonisys. Although the commercialisation plan sounds good, management needs money to scale up the infrastructure and if there is a delay on the funding front, Ikoniscope20 might remain a 'game-changing' product only on paper. Also, even after a commercial footprint is established, entering into rival's customer base is likely to be a herculean task. Moreover, considering that hospital capex budgets are constrained due to COVID-19, Ikoniscope20 adoption could be slower than expected. Technological risk for FISH assays is also there, particularly from the faster-growing molecular diagnostic technologies like next-generation sequencing. Not to forget, the management team is relatively new and is yet to prove its mettle in terms of execution. In a nutshell, Ikonisys is a high risk high return bet.

Divisional Breakdown Of Revenues

Sector	12/20A (1)	12/21E	12/22E	12/23E	Change 21E/20		Change 22E/21E		
					€M	of % total	€M	of % total	
Total sales	0.39	0.35	4.14 (2)	7.99 (2)	0 ↓	100%	4 ↑	100%	
Equipment/ instrument sales	Med Tech	0.00	0.09	2.61	3.40	0 ↑	-225%	3 ↑	66%
Consumables/ Reagents	Med Tech	0.00	0.00	1.09	2.79	0 ↑	0%	1 ↑	29%
Service/ Maintenance	Med Tech	0.39	0.25	0.02	0.60	0 ↓	350%	0 ↓	-6%
Software Applications	Med Tech	0.00	0.01	0.42	1.20	0 ↑	-25%	0 ↑	11%
Other		0.00	0.00	0.00	0.00	0 ↑	0%	0 ↑	0%

1. Pro-forma consolidated numbers

2. Based on discussions with management, appropriate discounts have been applied, wherever applicable

Key Exposures

	Revenues	Costs	Equity
Dollar	60.0%	100.0%	100.0%
Emerging currencies	0.0%	0.0%	0.0%
Long-term global warming	0.0%	0.0%	0.0%

Sales By Geography

North America	100.0%
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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 party 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 cyclicals. 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

Ikonisys (Buy)

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

Yet to make profit

Given its small scale and continuous investments into R&D, Ikonisys has reported an operating loss every year since formation. The pain aggravated in FY20 as revenue took a hit (as one customer closed shop) and as development costs continued, the company reported an operating loss of €776k (vs. loss of €595k in FY19; pro-forma numbers in the model show an operating profit due to capitalisation of R&D; for more details on group's restructuring, refer to the Worth Knowing section). Considering that its lead product, Ikoniscope20, should require significant spend on the commercial front in the near-term, losses are here to stay. Also, with R&D into Ikoniscope AI and software applications expected to make progress, Ikonisys is still a couple of years away from meaningful profitability and/or cash generation.

In need of funds

Ikonisys' ability to raise funds could play a pivotal role in a successful turnaround of the business. To unleash the full commercial potential of Ikoniscope20, the group needs to gradually build-up a sales and marketing organisation in the US and Europe and for that it raised fresh equity (of €4m). Three-fourth of the IPO proceeds should be used for commercialisation while the remaining should be utilised either for R&D (for the development of new applications and Ikoniscope AI) or for working capital purposes (to build up Ikoniscope20 inventory). Remember that Ikonisys operates with an asset-light model – only software applications, which are the most critical, are developed in-house while production of the platform and reagents is outsourced – and thus the business is scalable in nature.

Revenue generation mechanism

Given the significant under-penetration of automated solutions within the industry, Ikoniscope20 should witness faster adoption and thus equipment/instrument sales should be the key revenue driver for Ikonisys in the near/mid-term – the platform is available on outright purchase as well as a flexible rent/lease model. We anticipate that c.90% of the penetrated labs should buy one platform (priced at €90k) initially and by FY25, c.25% should be buying more than one instrument. We have factored in 20%, 15% and 4% penetration in targeted accounts in the US, Europe and ROW, respectively, by FY25, translating into an installed base of around 350 units by the end of FY25.

Importantly, instrument placements should generate significant recurring revenues in the mid-term. Majority of that should stem from reagents (priced at €60; standardised kits manufactured by third parties, though Ikonisys-labelled) which are required to conduct tests – we assume 2,000 tests per machine per annum initially with 25% penetration of Ikonisys kits. Also, the company will charge an annual fee of €18k for service/ maintenance of equipments. Software applications should also be a recurrent/profitable source of revenue – management plans to start the sales process with one software application per equipment (which should increase gradually) and should charge an annual fee (of €7k) for the usage of each application. Additionally, it plans to expand the menu range with two new applications per year for additional cancer types –

R&D on few FISH (like oropharyngeal and anal cancer) and CTC (lung, pancreatic and breast cancer) tests has already started – and this bodes well for the mid/ long-term.

Overview of assumptions

KPI's	2021	2022	2023	2024	2025
Total installed base	1	30	64	155	355
No. of applications per equipment	1.5	2.0	2.5	3.0	3.0
Tests per machine p.a.	2,000	2,200	2,420	2,541	2,668
Ikonisys' kits penetration	25.0%	27.5%	30.0%	32.5%	35.0%

Unit prices (€)					
Equipment price	90,000	90,000	1,00,000	1,00,000	1,00,000
Software Application price	7,000	7,000	7,500	7,500	7,500
Service contract/AMC	18,000	18,000	20,000	20,000	20,000
Consumables/ Reagents/ Kit price	60	60	60	60	60

Revenue (€m)					
Equipment/ Instrument sales	0.1	2.6	3.4	9.1	20.0
Recurring revenue	0.3	1.5	4.6	12.4	31.0
Total revenue	0.4	4.1	8.0	21.5	51.0

Source: AlphaValue estimates

Ikonisys should turn profitable in FY24

Instrument revenue combined with recurring revenue should generate total revenue of c.€51m by FY25. Expectedly, instrument revenue should be a key contributor to the top-line in the near-term and as the installation base grows, high-margin recurring revenue should grab a bigger pie, as with any other IVD firm. As far as segment margins are concerned, software applications and maintenance are very high gross margin in nature (in the range of 90-100%). Reagents/ consumables generate c.60% margin (upper-end of management's guidance) while equipments are expected to have c.38% gross margin.

As per our estimates and after taking into consideration the significant spend on the marketing front, the group should turn EBITDA positive in FY24. Also, the increasing proportion of high margin recurring revenue in the mix should provide good visibility into earnings and make the cash-flows stickier/ stable/safe.

A takeover target?

Given the influx of cash due to COVID-19 tailwinds, IVD firms are currently on a shopping spree – Roche Diagnostics acquired GenMark for \$1.8bn, Thermo Fisher acquired Mesa Biotech for c.\$550m, PerkinElmer bought Oxford Immunotec for c.\$591m and DiaSorin grabbed Luminex for \$1.8bn recently. In our view, success with Ikoniscope20 could see Ikonisys being associated with a larger player, especially when their appetite to source growth from outside has been on the rise in recent years and they continue to scout for smaller and more-specialised firms for innovation. As smaller players find difficulty in funding, larger players come to their rescue via stake / out-right purchases.

Ergo, there is a possibility that Ikonisys becomes a potential takeover target of a larger player, much before its product gains scale and the company turns profitable.

Divisional Other profit breakdown Analysis

	12/20A	12/21E	12/22E	12/23E	Change 21E/20		Change 22E/21E	
	(3)	(4)	(4)	(4)	€M	of % total	€M	of % total
Total	0.38	0.26	1.95	4.58	0 ↓	100%	2 ↑	100%
Equipment/ instrument sales	0.00	0.03	0.89	1.22	0 ↑	-25%	1 ↑	51%
Consumables/ Reagents	0.00	0.00	0.63	1.62	0 ↑	0%	1 ↑	37%
Service/ Maintenance	0.38	0.23	0.02	0.54	0 ↓	125%	0 ↓	-12%
Software Applications	0.00	0.01	0.42	1.20	0 ↑	-8%	0 ↑	24%
Other/cancellations	0.00	0.00	0.00	0.00	0 ↑	0%	0 ↑	0%

3. Gross margin

4. Segment gross margin based on discussions with management, appropriate discounts have been applied, wherever applicable

Divisional Other profit breakdown Analysis margin

	12/20A	12/21E	12/22E	12/23E
Total	97.9%	75.0%	47.1%	57.3%
Equipment/ instrument sales		30.0%	34.0%	36.0%
Consumables/ Reagents			57.5%	58.0%
Service/ Maintenance	97.9%	90.0%	90.0%	90.0%
Software Applications		100%	100%	100%

Valuation

Given the cash-generative nature of the business, the DCF emerges as a suitable valuation metric for Ikonisys. We have factored in the successful ramp-up of Ikoniscope20 and thus the revenue and EBITDA grow exponentially in the forecast years. Importantly, driven by the increasing contribution of high-margin recurring revenue in the total mix and limited capex requirements, Ikonisys' free cash flow should turn positive in FY24. In the out years, we assign 13% and 16% revenue and EBITDA growth, respectively, as Ikoniscope20 gains scale and generate operational leverage.

For the NAV valuation, we have used a different EV/Sales multiple for each revenue stream. The equipment/ instrument business has been valued at 7x i.e. in-line with the historical average (FY16-2020) of diagnostic peers. The recurring and high margin service/ maintenance revenue and software applications are valued at 9x i.e. 20% premium to peers. Consumables/ reagents business is valued at 8x.

For the peer-based valuation, we have taken into consideration small-to-large sized diagnostic players from across the globe.

Valuation Summary

Benchmarks		Values (€)	Upside	Weight
DCF		8.22	357%	40%
NAV/SOTP per share		16.1	795%	40%
P/E	Peers	0.90	-50%	5%
EV/Ebitda	Peers	0.00	-100%	5%
P/Book	Peers	1.66	-8%	5%
Dividend Yield	Peers	0.00	-100%	5%
Target Price		9.86	448%	

Comparison based valuation

Computed on 18 month forecasts	P/E (x)	Ev/Ebitda (x)	P/Book (x)	Yield(%)
Peers ratios	ns	63.8	2.59	0.09
Ikonisys's ratios	-11.0	-13.5	2.80	0.00
Premium	0.00%	0.00%	0.00%	0.00%
Default comparison based valuation (€)	0.90	0.00	1.66	0.00
PerkinElmer	19.6	15.8	2.25	0.20
Qiagen	24.8	13.5	2.93	0.00
Guardant Health, Inc.	-10.8	-11.5	9.57	0.00
Natera, Inc.	-7.10	-6.93	19.9	n/a
Quanterix Corporation	-7.78	-5.35	1.69	n/a
Invitae	-1.09	-2.61	0.29	n/a
Biocartis Group NV	-2.11	-9.11	-0.94	n/a

DCF Valuation Per Share

WACC	%	16.0	Avg net debt (cash) at book value	€M	0.14
PV of cashflow FY1-FY11	€M	36.3	Provisions	€M	0.00
FY11CF	€M	25.8	Unrecognised actuarial losses (gains)	€M	0.00
Normalised long-term growth "g"	%	2.00	Financial assets at market price	€M	0.01
Sustainability "g"	%	2.00	Minorities interests (fair value)	€M	0.00
Terminal value	€M	184	Equity value	€M	77.9
PV terminal value	€M	41.7	Number of shares	Mio	9.48
PV terminal value in % of total value	%	53.5	Implied equity value per share	€	8.22
Total PV	€M	78.1	Sustainability impact on DCF	%	0.00

Assessing The Cost Of Capital

Synthetic default risk free rate	%	3.50	Company debt spread	bp	550 ⁽⁶⁾
Target equity risk premium	%	5.00	Marginal Company cost of debt	%	9.00
Tax advantage of debt finance (normalised)	%	30.0	Company beta (leveraged)	x	2.33
Average debt maturity	Year	5	Company gearing at market value	%	-9.48
Sector asset beta	x	2.50 ⁽⁵⁾	Company market gearing	%	-10.5
Debt beta	x	1.10	Required return on geared equity	%	15.2
Market capitalisation	€M	17.1	Cost of debt	%	6.30
Net debt (cash) at book value	€M	-1.62	Cost of ungeared equity	%	16.0
Net debt (cash) at market value	€M	-1.62	WACC	%	16.0

5. Average 5-year beta of unlevered peers; discount has been applied to factor in the business riskiness

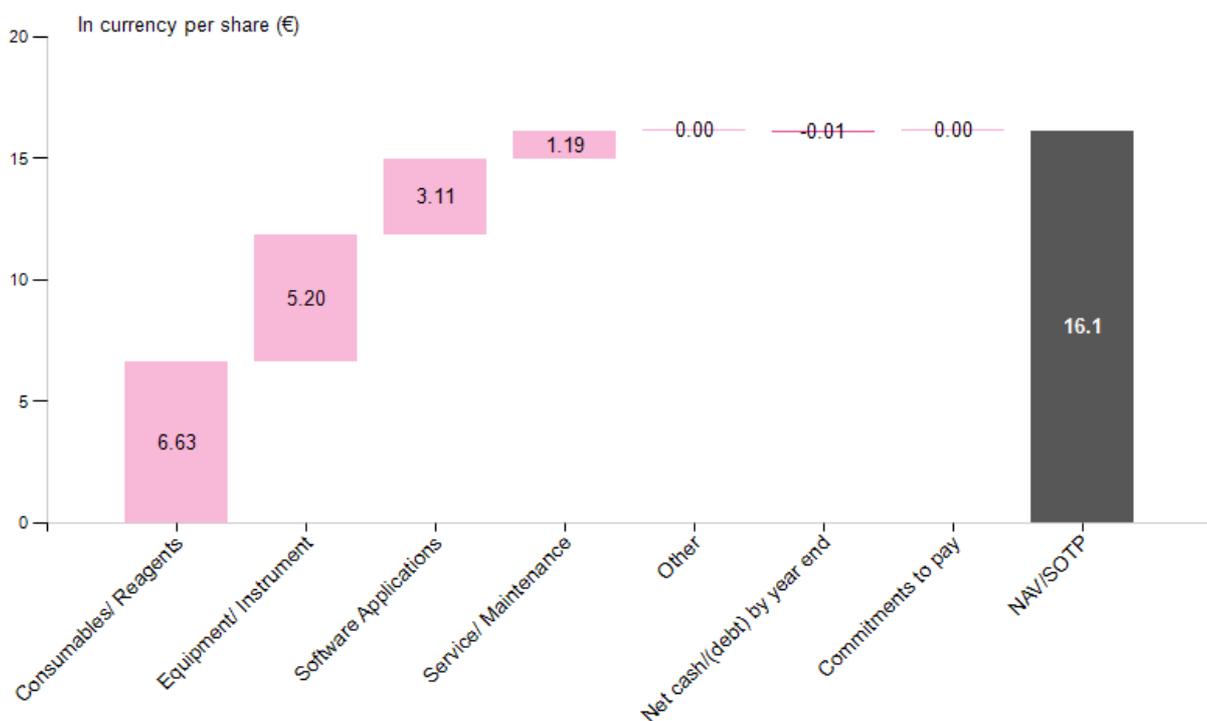
6. Based on average interest rate for FY19-20

DCF Calculation

		12/20A	12/21E	12/22E	12/23E	12/24E	12/25E	Growth	12/26E
Sales	€M	0.39	0.35	4.14	7.99	21.5	51.0	13.0%	57.6
EBITDA	€M	0.17	-0.23	-2.81	-0.37	2.32	12.3	16.0%	14.2
<i>EBITDA Margin</i>	%	44.9	-65.0	-67.9	-4.65	10.8	24.0		24.7
Change in WCR	€M	0.15	-1.09	-0.62	-0.74	-0.61	-0.53	13.0%	-0.60
Total operating cash flows (pre tax)	€M	-2.30	-1.22	-3.43	-1.11	1.71	11.7		13.6
Corporate tax	€M	-0.01	0.00	-0.01	0.00	-0.22	-1.21	13.0%	-1.37
Net tax shield	€M	-0.53	-0.01	0.00	-0.05	-0.05	-0.04	13.0%	-0.04
Capital expenditure	€M	0.00	-0.01	-0.06	-0.10	-0.22	-0.43	13.0%	-0.49
<i>Capex/Sales</i>	%	-0.26	-2.00	-1.50	-1.25	-1.00	-0.85		-0.85
Pre financing costs FCF (for DCF purposes)	€M	-2.84	-1.24	-3.51	-1.26	1.24	10.0		11.7
Various add backs (incl. R&D, etc.) for DCF purposes	€M								
Free cash flow adjusted	€M	-2.84	-1.24	-3.51	-1.26	1.24	10.0		11.7
Discounted free cash flows	€M	-2.84	-1.24	-3.03	-0.93	0.79	5.55		5.58
Invested capital	€	6.89	7.98	8.67	9.49	10.3	11.2		12.7

NAV/SOTP Calculation

	% owned	Valuation technique	Multiple used	Valuation at 100% (€M)	Stake valuation (€M)	In currency per share (€)	% of gross assets
Consumables/ Reage...	100%	EV/Sales	8	62.9	62.9	6.63	41.1%
Equipment/ Instrument	100%	EV/Sales	7	49.3	49.3	5.20	32.2%
Software Applications	100%	EV/Sales	9	29.5	29.5	3.11	19.3%
Service/ Maintenance	100%	EV/Sales	9	11.3	11.3	1.19	7.36%
Other					0.01	0.00	0.01%
Total gross assets					153	16.1	100%
Net cash/(debt) by year end					-0.14	-0.01	-0.09%
Commitments to pay					0.01	0.00	0.01%
Commitments received							
NAV/SOTP					153	16.1	99.9%
Number of shares net of treasury shares - year end (Mio)					9.48		
NAV/SOTP per share (€)					16.1		
Current discount to NAV/SOTP (%)						88.8	



Debt

For the past few years, Ikonisys has been funding its operations via the issuance of convertible loans to the majority shareholder, Cambria Funds (Co-Investment Fund and Cambria Equity Partners). At the end of FY20 (prior to group restructuring), Ikonisys Inc. gross debt stood at \$22.7m, comprising primarily of convertible loan (\$21.3m) and borrowings from related parties, including the company's directors. The group also had an outstanding loan of \$0.15m (interest rate: 4%; maturity: May 2025) towards the State of Connecticut.

Given that the company needs to invest aggressively in the commercialisation of the new platform in the coming quarters, it raised fresh equity of €4m via an IPO. Remember that the convertible loans were completely converted into equity during the group's restructuring process.

Note that the 2021 credit rating (DDD) is a reflection of higher spend on the commercialisation front, resulting in negative FCFs. However, as Ikoniscope20 gains scale and the proportion of high-margin recurring revenue in the mix increases, cash flows should become stickier and credit rating should improve in the mid-term.

Detailed financials at the end of this report

Funding - Liquidity

		12/20A	12/21E	12/22E	12/23E	
EBITDA	€M	0.17	-0.23	-2.81	-0.37	7. Includes IPO proceeds
Funds from operations (FFO)	€M	-2.46	-0.17	-2.83	-0.53	8. Includes IPO proceeds
Ordinary shareholders' equity	€M	5.39	9.21⁽⁷⁾	6.38	5.85	
Gross debt	€M	1.11	0.17	3.87	3.77	
+ Gross Cash	€M	0.00	1.79 ⁽⁸⁾	1.97	0.51	
= Net debt / (cash)	€M	1.11	-1.62⁽⁸⁾	1.90	3.26	
Gearing (at book value)	%	16.1	-2.75	2.17	44.1	
Equity/Total asset (%)	%	76.9	114	72.6	60.8	
Adj. Net debt/EBITDA(R)	x	6.43	7.06	-0.68	-8.78	
Adjusted Gross Debt/EBITDA(R)	x	6.43	-0.74	-1.38	-10.1	
Adj. gross debt/(Adj. gross debt+Equity)	%	17.1	1.81	37.7	39.2	
Ebit cover	x	0.06	-5.17	-414	-2.44	
FFO/Gross Debt	%	-221	-103	-73.1	-14.0	
FFO/Net debt	%	-221	10.8	-149	-16.2	
FCF/Adj. gross debt (%)	%	-367	-749	-90.8	-36.2	
(Gross cash+ "cash" FCF+undrawn)/ST debt	x	-4.45				
"Cash" FCF/ST debt	x	-2.53				

Worth Knowing

Ikonisys was formed in 1999 with an objective to develop an automated digital microscope that could accurately detect, analyse and interpret rare cells. The R&D team was successful in developing such a product and Ikoniscope Robotic Digital Microscope reached the market in 2006. During FY07-10, the company sold 40 instruments but management lost plot thereafter – during FY10-15, the focus was on setting up a clinical laboratory in-house, rather than on the commercialisation of Ikoniscope.

As the strategy didn't work, the erstwhile shareholders wanted to exit the business and this is when Cambria Funds came into the picture – since 2015, the fund has gradually built-up a stake in the company and now is the biggest shareholder of Ikonisys SA with c.89% shares. Importantly, with the entry of Cambria, focus shifted back to Ikoniscope and post the rigorous R&D efforts of the past few years, the next-gen platform is out in the market. In our view, Ikoniscope20 could revive the fortunes of the group.

Currently, Ikonisys has a one share one vote system in place but post the IPO, Cambria will hold more than half of the company's share capital and may enjoy double voting rights from the second anniversary date of the IPO.

As far as the organisation structure is concerned, French-entity Ikonisys SA is listed on Euronext Growth. Ikonisys SA owns 100% of US-firm Ikonisys Inc. via Italian-entity Ikonisys Srl. The pro-forma numbers in our model retroactively reflect the effects of this internal restructuring.

Shareholders

Name	% owned	Of which % voting rights	Of which % free to float
Cambria Funds	88.9%	88.9%	0.00%
Mario CROVETTO	3.71%	3.71%	0.00%
Apparent free float			7.38%

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
Governance		
Independent directors rate	7/10	25%
Board geographic diversity	10/10	20%
Chairman vs. Executive split	✓	5%
Environment		
CO ² Emission	2/10	25%
Water withdrawal	2/10	10%
Social		
Wage dispersion trend	0/10	5%
Job satisfaction	7/10	5%
Internal communication	10/10	5%
Sustainability score	5.7/10	100%

Governance & Management

Ikonisys' board comprises six members (no female), of which four are considered as independent. The board is chaired by Mario Mauri, who also happens to be the chairman and CEO of Ikonisys' largest shareholder Cambria Funds (holds c.89% of the shares in Ikonisys SA). Note that Mario Mauri has more than 25 years of experience in private equity and venture capital investing.

Robert Rettani is the deputy chairman, who is also the chairman of a consulting firm Syneresis Srl.

Remember, Ikonisys' CEO, Mario Crovetto, also sits on the board and at the same time owns c.4% stake in the company. Pramod Srivastava (Director of the Carole and Ray Neag Comprehensive Cancer Center, University of Connecticut) is another director who chairs the scientific advisory board at Ikonisys, which guides the firm in product development.

Robust management team in place

In the past few years, Ikonisys has strengthened its management team. Mario Crovetto – a healthcare industry veteran with exposure to the financial markets as well (as a CFO, played a key role in the listing of Eurand NV in NASDAQ in 2007) – was handed over the reins of the CEO in 2018. Subsequently, a new CCO was appointed to fortify the team – Juergen Schipper has been associated with successful launches of various diagnostic products in the past 20 years (previously associated with Luminex and Omega Diagnostics) and is the man in-charge to make Ikoniscope20 a commercial success.

Not to forget, one of the founders, Michael Kilpatrick, is the company's CSO and the prominent researcher has been highly instrumental in the development of various company products. Also, Alessandro Mauri is the CFO, who also happens to be an employee of Mario Mauri-owned Cambria Funds.

Governance score

Company (Sector)

6.8 (4.7)

Independent board

Yes

Parameters	Company	Sector	Score	Weight
Number of board members	6	9	9/10	5.0%
Board feminization (%)	0	37	1/10	5.0%
Board domestic density (%)	0	64	10/10	10.0%
Average age of board's members	65	58	2/10	5.0%
Type of company : Small cap, controlled			4/10	10.0%
Independent directors rate	66	35	7/10	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%
Governance score			6.8/10	100.0%

Management

Name		Function	Birth date	Date in	Date out	Compensation, in k€ (year)	
						Cash	Equity linked
Mario CROVETTO	M	 CEO	1953	2018			
Alessandro MAURI	M	 CFO	1986	2019			
Jurgen SCHIPPER	M	 CCO	1967	2019			
Bill KOCHISS	M	 CTO	1974	2016			
Michael W KILPATRICK	M	 Member of the management board	1957	1999			

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)	
							Cash	Equity linked	Cash	Equity linked
Mario MAURI	M	  President/Chairman of th...		1950	2015					
Roberto RETTANI	M	  Deputy Chairman		1953	2015					
Alberto CALVO	M	  Member		1971	2018					
Mario CROVETTO	M	  Member		1953	2020					
Vittorio GRAZIOLI	M	  Member		1956	2015					
Pramod SRIVASTAVA	M	  Member		1955	2021					

Environmental score

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

Parameters	Score	Sector	Weight
CO ² Emission	2/10	4/10	30%
Water withdrawal	2/10	5/10	30%
Energy	2/10	4/10	25%
Waste	3/10	5/10	15%
Environmental score	2.15		100%

Company (Sector)

2.15 (4.30)

Environmental metrics

Sector figures

Company	Country	Environment score	Energy (total, in GJ)	CO2 Emissions (in tons)	Water Withdrawal (in m3)	Waste (total, (in tons)
Siemens Healthineers		6/10	2,491,000	312,000	1,160,000	25,300
Ikonisys		2/10				
Royal Philips		8/10	1,892,000	204,000	703,000	22,204
Smith & Nephew		6/10	835,200	76,222	633,000	11,034
EssilorLuxottica		5/10	6,173,280	727,207	8,220,930	108,996
Fresenius Medical Care		2/10	9,360,000	765,500	41,400,000	
Alcon		5/10	2,867,375	327,746	4,640,000	45,307
Fresenius		2/10	21,024,000	1,524,000	56,400,000	
Qiagen		7/10	276,340	19,699	113,736	1,183
Getinge		9/10	335,398	14,780	202,505	2,769
Sonova Holding		6/10	431,910	26,144	139,707	2,179
Demant		6/10	335,195	30,588		
Coloplast		8/10	603,734	23,100	266,521	14,678
bioMerieux		3/10	784,800	58,000	603,000	9,900
Elekta		5/10		2,176		401
Orpea		4/10	3,040,851	150,348	5,230,689	32,376
Gn Store Nord		9/10	29,187	22,720	42,069	130
Carl Zeiss Meditec		5/10	498,432	8,281	416,672	4,511
DiaSorin		7/10	165,835	14,142	130,884	3,076
Korian		3/10	2,915,237	153,888	4,782,129	39,500
Bastide Le Confort Medical		2/10		7,793		
Sartorius		5/10	584,424	42,506	692,670	11,295
Sartorius Stedim Biotech		4/10	489,195	35,580	579,800	9,455

Social score

Company (Sector)

4.1 (5.8)**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	10/10	20%
Average wage trend	1/10	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	
Quantitative score	2.8/10	100%

Qualitative metrics (33%)

Set of listed qualitative criterias and for the analyst to tick

Parameters	Score	Weight
Accidents at work	4/10	25%
Human resources development	6/10	35%
Pay	10/10	20%
Job satisfaction	7/10	10%
Internal communication	10/10	10%
Qualitative score	6.8/10	100%

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
Accidents at work		25%
Set targets for work safety on all group sites?		10.0%
Are accidents at work declining?		15.0%
Human resources development		35%
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%
Pay		20%
Is there a compensation committee?		6.0%
Is employees' performance combining group AND individual performance?		14.0%
Job satisfaction		10%
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%
Internal communication		10%
Are strategy and objectives made available to every employee?		10.0%
Qualitative score	6.8/10	100.0%

Staff & Pension matters

Ikonisys Inc. offers an employee funded 401K plan in the US. The company is financially responsible for the cost of the maintenance fees only.

Recent updates

27/07/2022

Restrained 2021 results, but promising takeaways

Earnings/sales releases

Ikonisys released mixed 2021 operating results. The good part is that the firm has completed its first installation of Ikoniscope20, which is an important milestone. Add on top the various commercialisation initiatives, the firm is well-positioned to capitalise on the (recovery in) oncology markets. While our positive recommendation is reiterated, some caution is warranted with respect to supply-chain headwinds and re-emerging COVID-19 risks.

Fact

Ikonisys released mixed 2021 operating results. Sales were down 4.3% to €464k vs. the sharp fall witnessed in H1 21 (-24%), which implies that H2 sales momentum was very strong (+32%), largely attributable to maintenance contracts with respect to the first-generation instrument. However, reported operating loss came in at €412k (vs. €205k profit in 2020).

Nevertheless, net losses narrowed to €571k (vs. €1.6m in 2020) – with the IPO-driven restructuring resulting in negligible interest expenses (€5.1k vs. €1.8m in 2020).

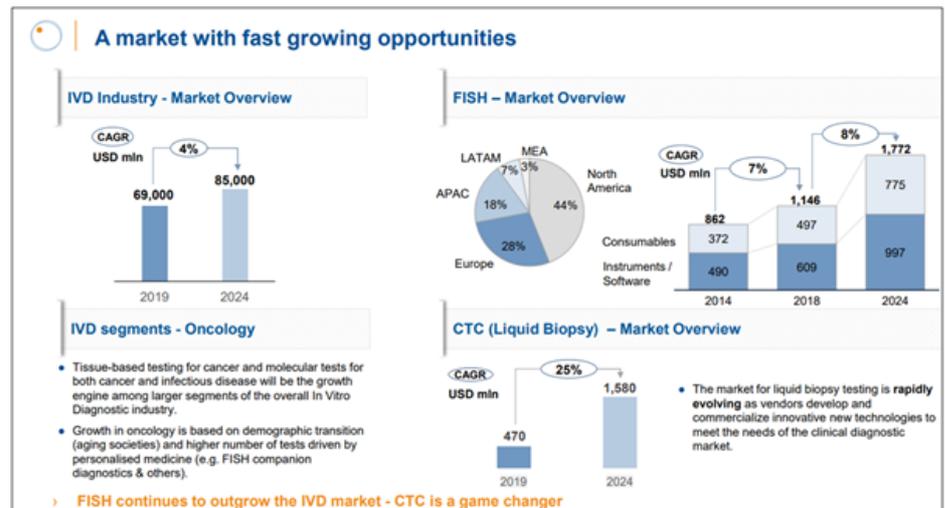
The firm will publish its next set of results on 26 October 2022.

Analysis

Finally, Ikoniscope20 sales begin

While 2021 continued to be a year when commercial progress remained restrained – reflecting in the above-discussed results, it is worth noting that the French MedTech firm finally witnessed the first installation of Ikoniscope20 (newest offering) in February 2022 at Toma Advanced Biomedical Assays Spa in Italy – one of the largest genetic laboratories, which should also become a reference laboratory for potential clients to review the machine and its testing capabilities. Moreover, through various initiatives, the firm now has a two-fold worldwide commercialisation strategy in place. In the US, Ikonisys targets to convert its existing users and, in the Europe, the primary focus is on direct commercialisation, especially in Germany, Italy and France. To accomplish its targets, the firm has hired sales directors in the US and France.

With respect to the oncology market's dynamics, there's both a rising cancer incidence rate and acute shortages of pathologists in the diagnostics space, with the US witnessing an 18% decline in the active pathologist population over 2007-17 and c.63% of active US pathologists being over 55 years old. Moreover, in the UK, c.44% of active pathologists are working overtime. In this context, Ikoniscope20, as a product, is well-positioned to capture the changing market dynamics (illustrated below), considering that it can reduce c.65% of the manual workflow through automation in the labs, resulting in substantial cost and time efficiency improvements.



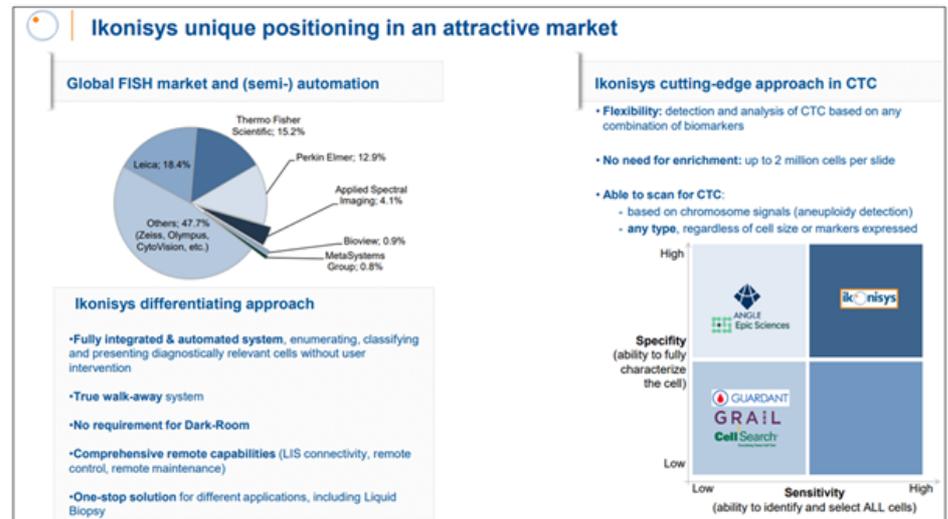
Source: Ikonisys Management Presentation February 2022, Kalorama 2016 and 2020, Siemens Healthineers 2017, Grandview Research 2018, Brandessence 2018 and Angle PLC Annual report 2019 – Frost & Sullivan 2018

What next?

Considering that Ikoniscope20 is one of the most-advanced offerings in this space, management expects better pricing for the instrument. Although, on the reagents side, the firm is still in the process of finalising reagent optimisation and, hence, its sales could be delayed to H2 22. As a result, we will adjust the estimates for the selling prices of instruments and commercialisation assumption for reagents. Besides this, considering the aggravating industry-wide supply-chain headwinds, installations could be impacted in 2022 and, hence, sales volumes of instruments should be moderated.

Potential acquisition target

Ikonisys' current offering differs on various technological fronts compared with some (key) competitors – which is illustrated below. While the French firm is still in the very early stages of commercialisation, its differentiated positioning could gain traction in the coming quarters and, hence, it could become an acquisition target for MedTech giants looking to leverage the firm's technologically-superior products. While one can expect this scenario, this should largely depend on how quickly the French firm is able to gain market share. Interestingly, the firm also plans to deliver further advanced technology benefits through its Ikoniscope AI (anticipated to be launched in 2023) – thereby equipping pathologists' workflow with artificial intelligence capabilities, resulting in efficient and better data interpretation.



Source: Ikonisys Management Presentation February 2022, Brandessence 2018 and DLS Consulting 2018

Sector read-across

Considering that COVID-19 cases have normalised from the prior peaks witnessed in mid-January 2022, oncology markets should regain recovery momentum in the coming quarters. Although, the recent (i.e. Q1 22) results for oncology majors (such as Roche and Novartis) suggest that a full-fledged recovery is yet to get underway. Also, with some of the MedTech giants such as Philips and GE Healthcare reporting accelerated supply-chain headwinds in their recent earnings/results, especially given the worsening pandemic situation in China and Ukraine/Russia war-induced uncertainties, near-term issues/disruptions for the likes of Ikonisys cannot be ruled out.

Impact

After the restrained 2021 results, 2022 began on a healthy note, given the first installation of Ikonisys' game-changing instrument. Also, considering the commercialisation strategy that has been formulated, much better operating results can be expected from 2022 onwards. While our positive stock recommendation has been maintained, the current industry-wide supply-chain headwinds and/or re-emerging COVID-19 are risks to our investment case.

22/10/2021

Factoring in the revised commercialisation plans

Change in EPS	2021 : € -0.02 vs -0.03	ns
	2022 : € -0.30 vs -0.40	ns

Given the delayed equipment sales and associated recurring sales stream, coupled with higher R&D expenses, our assumption of medium-term losses has been maintained.

Change in NAV	€ 16.1 vs 18.5	-13.0%
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While the multiples for the respective divisions remain unchanged, the NAV downgrade is largely a function of commercialisation delays. Although the NAV

remains the most-attractive metric reflecting the firm's long-term potential, assuming that business plans are gradually back on track.

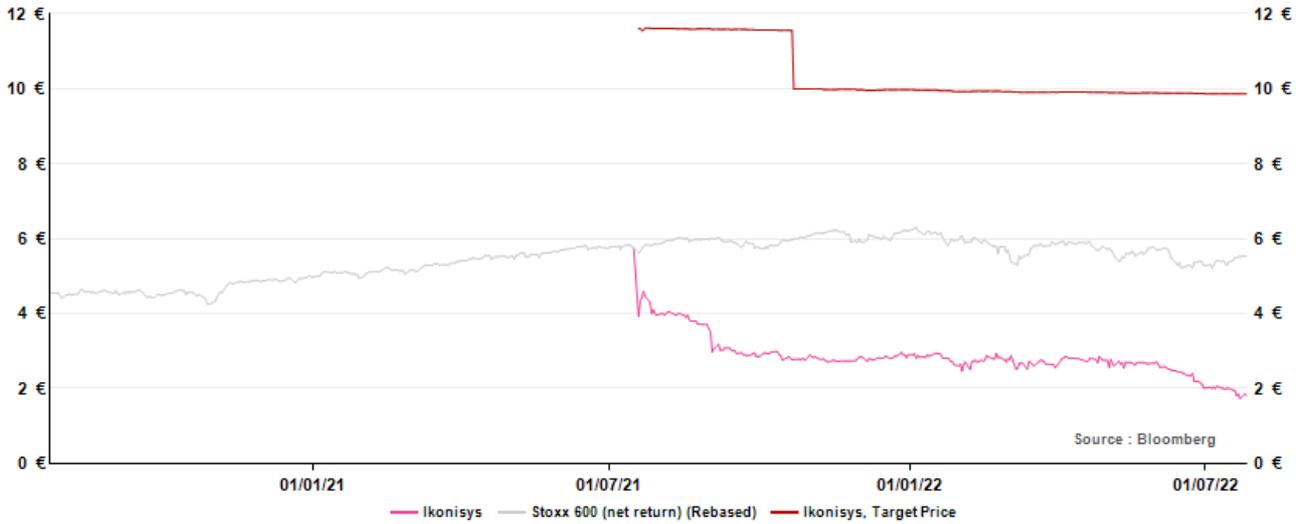
Change in DCF

€ 8.23 vs 9.77

-15.7%

Factoring in the medium-term business challenges, the DCF resets lower. This metric's higher sensitivity (vis-à-vis NAV) is also due to cash flows in the medium term. Hence, the plans hinge on easy access to capital markets, at least while reasonable-to-healthy earnings/cash flows haven't been restored. Nevertheless, the healthy out-year growth estimates have been maintained, given the focus on the market's potential and Ikonisys' valued differentiation.

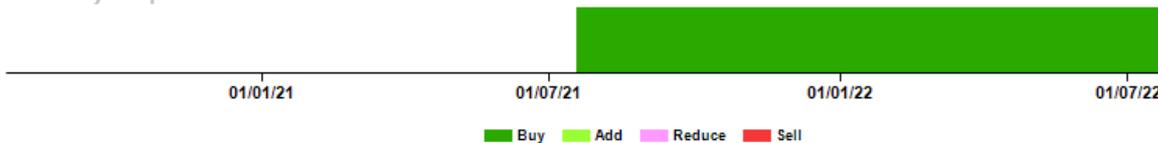
Stock Price and Target Price



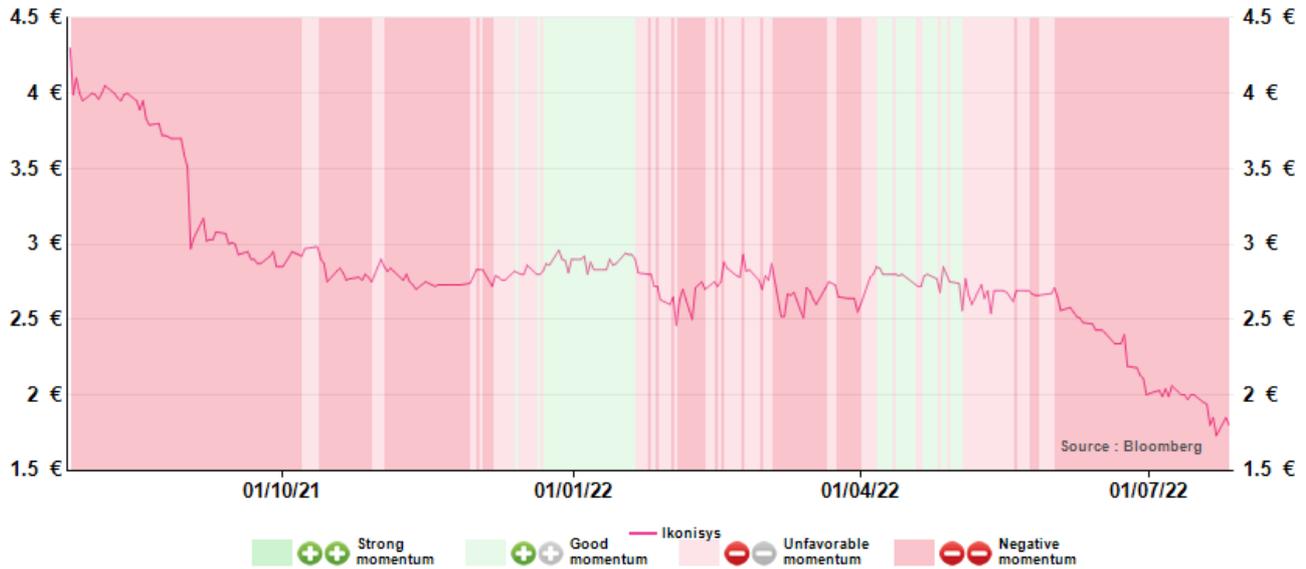
Earnings Per Share & Opinion



Ikonisys : 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.

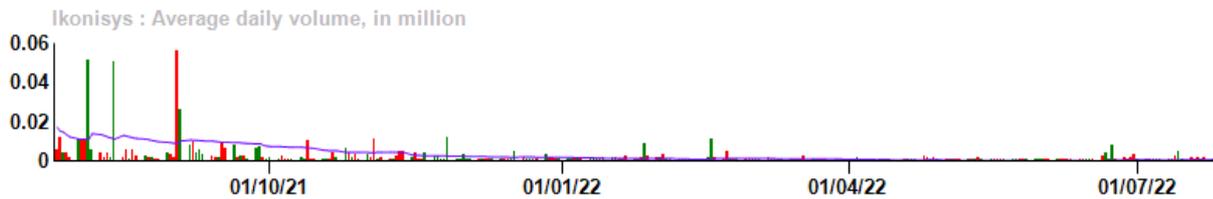
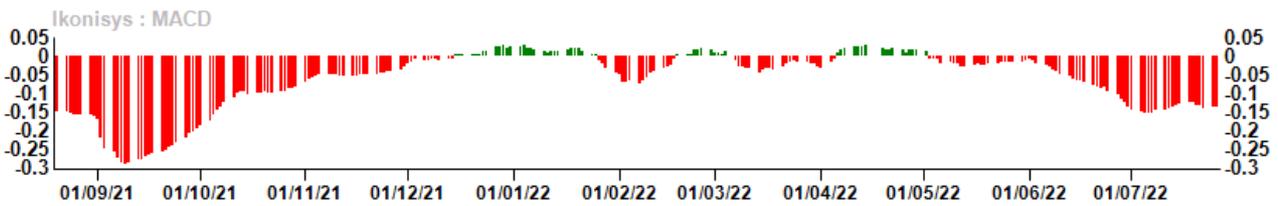
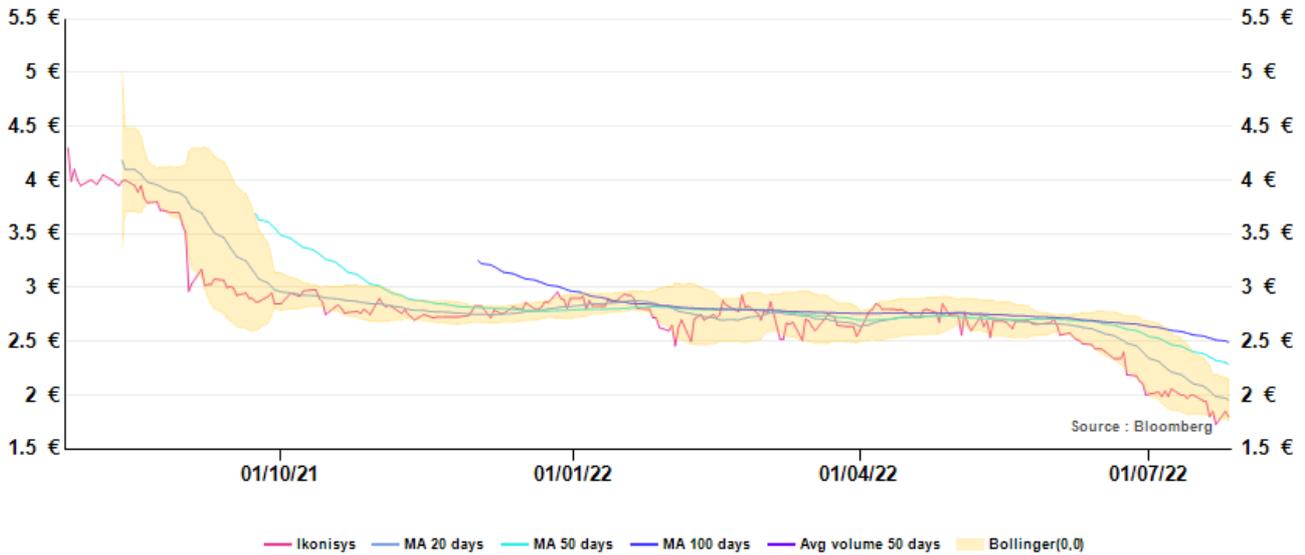
 : Strong momentum corresponding to a continuous and overall positive moving average trend confirmed by volumes

 : 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



€/\$ sensitivity



Sector Health



Detailed Financials

Valuation Key Data		12/20A	12/21E	12/22E	12/23E
Adjusted P/E	x	-32.1	ns	-6.03	-31.9
Reported P/E	x	-32.1	-172	-6.03	-31.9
EV/EBITDA(R)	x	ns	ns	-6.72	-54.5
EV/EBIT	x	ns	ns	-6.72	-53.5
EV/Sales	x	ns	80.7	4.56	2.53
P/Book	x	9.37	3.27	2.67	2.92
Dividend yield	%	0.00	0.00	0.00	0.00
<i>Free cash flow yield</i>	%	-8.08	-4.21	-20.6	-8.00
Average stock price	€	5.75	3.18	1.80	1.80

Consolidated P&L		12/20A ⁽⁹⁾	12/21E	12/22E	12/23E
Sales	€M	0.39	0.35 ⁽²⁾	4.14 ⁽²⁾	7.99 ⁽²⁾
<i>Sales growth</i>	%	-37.6	-8.52	1,074	93.1
<i>Sales per employee</i>	€th	42.8	23.5	138	133
R&D Costs	€M	0.00	-0.32	-2.28	-2.56
R&D costs as % of sales	%	0.00	-90.0	-55.0	-32.0
Staff costs	€M	-0.75	-1.12	-2.13	-4.34
Operating lease payments	€M				
Cost of sales/COGS (indicative)	€M	-0.01	-0.09	-2.19	-3.41
EBITDA	€M	0.17	-0.23	-2.81	-0.37
EBITDA(R)	€M	0.17	-0.23	-2.81	-0.37
<i>EBITDA(R) margin</i>	%	44.9	-65.0	-67.9	-4.65
<i>EBITDA(R) per employee</i>	€th	19.2	-15.3	-93.6	-6.19
Depreciation	€M	-0.07	0.00	0.00	-0.01
<i>Depreciations/Sales</i>	%	17.7	0.24	0.02	0.08
Amortisation	€M				
Underlying operating profit	€M	0.10 ⁽¹⁰⁾	-0.23	-2.81	-0.38
<i>Underlying operating margin</i>	%	27.2	-65.3	-67.9	-4.73
Other income/expense (cash)	€M	0.10	0.10	0.00	0.00
Impairment charges/goodwill amortisation	€M				
Operating profit (EBIT)	€M	0.20	-0.13	-2.81	-0.38
Interest expenses	€M	-1.77	-0.04	-0.01	-0.15
<i>of which effectively paid cash interest expenses</i>	€M	-0.01	-0.04	-0.01	-0.15
Financial income	€M				
Other financial income (expense)	€M				
Net financial expenses	€M	-1.77	-0.04	-0.01	-0.15
<i>of which related to pensions</i>	€M	0.00	0.00	0.00	0.00
Pre-tax profit before exceptional items	€M	-1.57	-0.17	-2.82	-0.53
Exceptional items and other (before taxes)	€M				
Current tax	€M	-0.01	0.00	-0.01	0.00
Deferred tax	€M				
Corporate tax	€M	-0.01	0.00	-0.01	0.00
<i>Tax rate</i>	%	-0.40	-0.50	-0.50	-0.50
<i>Net margin</i>	%	-408	-49.8	-68.4	-6.71
Equity associates	€M				
<i>Actual dividends received from equity holdings</i>	€M				
Minority interests	€M				
Income from discontinued operations	€M				
Attributable net profit	€M	-1.57	-0.18	-2.83	-0.54
Impairment charges/goodwill amortisation	€M	0.00	0.00	0.00	0.00
Other adjustments	€M				
Adjusted attributable net profit	€M	-1.57	-0.18	-2.83	-0.54
Fully diluted adjusted attr. net profit	€M	-1.57	-0.18	-2.83	-0.54
NOPAT	€M	0.07	-0.16	-1.97	-0.26

9. Pro-forma consolidated numbers

2. Based on discussions with management, appropriate discounts have been applied, wherever applicable

10. Reported numbers showed an operating loss while pro-forma numbers indicate a profit due to capitalisation of R&D

Cashflow Statement

		12/20A	12/21E	12/22E	12/23E
EBITDA	€M	0.17	-0.23	-2.81	-0.37
Change in WCR	€M	0.15	-1.09	-0.62	-0.74
<i>of which (increases)/decr. in receivables</i>	€M	0.00	-0.04	-0.38	-0.39
<i>of which (increases)/decr. in inventories</i>	€M	0.00	-0.07	-0.92	-0.55
<i>of which increases/(decr.) in payables</i>	€M	0.05	-0.69	0.61	0.20
<i>of which increases/(decr.) in other curr. liab.</i>	€M	0.09	-0.30	0.06	0.00
Actual dividends received from equity holdings	€M	0.00	0.00	0.00	0.00
Paid taxes	€M	-0.01	0.00	-0.01	0.00
Exceptional items	€M				
Other operating cash flows	€M	-2.62	0.10	0.00	0.00
Total operating cash flows	€M	-2.31	-1.22	-3.45	-1.11
Capital expenditure	€M	0.00	-0.01	-0.06	-0.10
<i>Capex as a % of depreciation & amort.</i>	%	1.47	851	8,039	1,499
Net investments in shares	€M				
Other investment flows	€M				
Total investment flows	€M	0.00	-0.01	-0.06	-0.10
Net interest expense	€M	-1.77	-0.04	-0.01	-0.15
<i>of which cash interest expense</i>	€M	-0.01	-0.04	-0.01	-0.15
Dividends (parent company)	€M				
Dividends to minorities interests	€M	0.00	0.00	0.00	0.00
New shareholders' equity	€M	0.09	4.00⁽¹¹⁾	0.00	0.00
<i>of which (acquisition) release of treasury shares</i>	€M				
(Increase)/decrease in net debt position	€M	2.03	-0.94	3.70	-0.10
Other financial flows	€M	-0.09	0.00	0.00	0.00
Total financial flows	€M	2.03	3.01	3.69	-0.25
Change in scope of consolidation, exchange rates & other	€M	0.15	0.00	0.00	0.00
Change in cash position	€M	-0.14	1.79	0.19	-1.46
Change in net debt position	€M	-2.17	2.73	-3.51	-1.36
Free cash flow (pre div.)	€M	-4.08	-1.27	-3.51	-1.36
Operating cash flow (clean)	€M	-2.31	-1.22	-3.45	-1.11
<i>Reinvestment rate (capex/tangible fixed assets)</i>	%	90.5	91.3	93.2	62.4

11. IPO proceeds

Balance Sheet

		12/20A ⁽¹⁾	12/21E	12/22E	12/23E
Capitalised R&D	€M	3.45	3.45	3.45	3.44
Goodwill	€M	4.42	4.42	4.42	4.42
Other intangible assets	€M	0.06	0.06	0.06	0.06
Total intangible	€M	7.92	7.92	7.92	7.92
Tangible fixed assets	€M	0.00	0.01	0.07	0.16
Right-of-use	€M	0.08	0.08	0.08	0.08
Financial fixed assets (part of group strategy)	€M				
Other financial assets (investment purpose mainly)	€M	0.01	0.01	0.01	0.01
WCR	€M	-1.03	0.05	0.68	1.41
<i>of which trade & receivables (+)</i>	€M	0.00	0.04	0.41	0.80
<i>of which inventories (+)</i>	€M	0.00	0.07	0.98	1.53
<i>of which payables (+)</i>	€M	0.73	0.04	0.66	0.85
<i>of which other current liabilities (+)</i>	€M	0.30	0.00	0.07	0.07
Other current assets	€M	0.03	0.03	0.03	0.03
<i>of which tax assets (+)</i>	€M				
Total assets (net of short term liabilities)	€M	7.01	8.10	8.79	9.62
Ordinary shareholders' equity (group share)	€M	5.39	9.21 ⁽⁷⁾	6.38	5.85
Quasi Equity & Preferred	€M	0.27	0.27	0.27	0.27
Minority interests	€M				
Provisions for pensions	€M	0.00	0.00	0.00	0.00
Other provisions for risks and liabilities	€M				
Deferred tax liabilities	€M				
Other liabilities	€M	0.23	0.23	0.23	0.23
Net debt / (cash)	€M	1.11	-1.62 ⁽⁸⁾	1.90	3.26
Total liabilities and shareholders' equity	€M	7.01	8.10	8.79	9.62
Average net debt / (cash)	€M	0.86	-0.25	0.14	2.58

1. Pro-forma consolidated numbers

7. Includes IPO proceeds

8. Includes IPO proceeds

EV Calculations

		12/20A	12/21E	12/22E	12/23E
EV/EBITDA(R)	x	ns	ns	-6.72	-54.5
EV/EBIT	x	ns	ns	-6.72	-53.5
EV/Sales	x	ns	80.7	4.56	2.53
EV/Invested capital	x	7.48	3.56	2.18	2.13
Market cap	€M	50.5	30.1	17.1	17.1
+ Provisions (including pensions)	€M	0.00	0.00	0.00	0.00
+ Unrecognised actuarial losses/(gains)	€M	0.00	0.00	0.00	0.00
+ Net debt at year end (ex Right-of-use from 2019)	€M	1.04	-1.70	1.82	3.18
+ Right-of-use (from 2019)/Leases debt equivalent	€M	0.00	0.00	0.00	0.00
- Financial fixed assets (fair value) & Others	€M	0.01	0.01	0.01	0.01
+ Minority interests (fair value)	€M				
= Enterprise Value	€M	51.5	28.4	18.9	20.2

Per Share Data

		12/20A	12/21E	12/22E	12/23E
Adjusted EPS (bfr goodwill amort. & dil.)	€	-0.18	-0.02	-0.30	-0.06
<i>Growth in EPS</i>	%	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>
Reported EPS	€	-0.18	-0.02	-0.30	-0.06
Net dividend per share	€	0.00	0.00	0.00	0.00
Free cash flow per share	€	-0.46	-0.14	-0.37	-0.14
Operating cash flow per share	€	-0.26	-0.13	-0.36	-0.12
Book value per share	€	0.61	0.97	0.67	0.62
Number of ordinary shares	Mio	8.78	9.48	9.48	9.48
Number of equivalent ordinary shares (year end)	Mio	8.78	9.48	9.48	9.48
Number of shares market cap.	Mio	8.78	9.48	9.48	9.48
Treasury stock (year end)	Mio				
Number of shares net of treasury stock (year end)	Mio	8.78	9.48	9.48	9.48
Number of common shares (average)	Mio	8.78	9.13	9.48	9.48
Conversion of debt instruments into equity	Mio				
Settlement of cashable stock options	Mio				
Probable settlement of non mature stock options	Mio				
Other commitments to issue new shares	Mio				
Increase in shares outstanding (average)	Mio	0.00	0.00	0.00	0.00
Number of diluted shares (average)	Mio	8.78	9.13	9.48	9.48
Goodwill per share (diluted)	€	0.00	0.00	0.00	0.00
EPS after goodwill amortisation (diluted)	€	-0.18	-0.02	-0.30	-0.06
EPS before goodwill amortisation (non-diluted)	€	-0.18	-0.02	-0.30	-0.06
Payout ratio	%	0.00	0.00	0.00	0.00
Capital payout ratio (div +share buy back/net income)	%	0.00	0.00	0.00	0.00

Funding - Liquidity

		12/20A	12/21E	12/22E	12/23E
EBITDA	€M	0.17	-0.23	-2.81	-0.37
Funds from operations (FFO)	€M	-2.46	-0.17	-2.83	-0.53
Ordinary shareholders' equity	€M	5.39	9.21⁽⁷⁾	6.38	5.85
Gross debt	€M	1.11	0.17	3.87	3.77
o/w Less than 1 year - Gross debt	€M	0.92	0.00	0.00	0.00
o/w 1 to 5 year - Gross debt	€M	0.12	0.12	0.12	0.12
of which Y+2	€M	0.00	0.00	0.00	0.12
of which Y+3	€M	0.00	0.00	0.12	0.00
of which Y+4	€M	0.00	0.12	0.00	0.00
of which Y+5	€M	0.12	0.00	0.00	0.00
o/w Beyond 5 years - Gross debt	€M	0.08	0.05	3.75	3.65
+ Gross Cash	€M	0.00	1.79 ⁽⁸⁾	1.97	0.51
= Net debt / (cash)	€M	1.11	-1.62⁽⁸⁾	1.90	3.26
Bank borrowings	€M	0.00	0.00	0.00	0.00
Issued bonds	€M	0.00	0.00	0.00	0.00
Financial leases liabilities	€M	0.08	0.08	0.08	0.08
Mortgages	€M	0.00	0.00	0.00	0.00
Other financing	€M	1.04	0.09	3.79	3.69
Gearing (at book value)	%	16.1	-2.75	2.17	44.1
Equity/Total asset (%)	%	76.9	114	72.6	60.8
Adj. Net debt/EBITDA(R)	x	6.43	7.06	-0.68	-8.78
Adjusted Gross Debt/EBITDA(R)	x	6.43	-0.74	-1.38	-10.1
Adj. gross debt/(Adj. gross debt+Equity)	%	17.1	1.81	37.7	39.2
Ebit cover	x	0.06	-5.17	-414	-2.44
FFO/Gross Debt	%	-221	-103	-73.1	-14.0
FFO/Net debt	%	-221	10.8	-149	-16.2
FCF/Adj. gross debt (%)	%	-367	-749	-90.8	-36.2
(Gross cash+ "cash" FCF+undrawn)/ST debt	x	-4.45			
"Cash" FCF/ST debt	x	-2.53			

7. Includes IPO proceeds

8. Includes IPO proceeds

ROE Analysis (Dupont's Breakdown)

		12/20A	12/21E	12/22E	12/23E
Tax burden (Net income/pretax pre excp income)	x	1.00	1.01	1.01	1.01
EBIT margin (EBIT/sales)	%	53.1	-36.9	-67.9	-4.73
Assets rotation (Sales/Avg assets)	%	5.52	4.67	49.0	86.8
Financial leverage (Avg assets /Avg equity)	x	1.23	1.03	1.08	1.50
ROE	%	-27.7	-2.40	-36.3	-8.76
ROA	%	2.97	-1.63	-32.4	-3.98

Shareholder's Equity Review (Group Share)

		12/20A	12/21E	12/22E	12/23E
Y-1 shareholders' equity	€M	5.96	5.39	9.21	6.38
+ Net profit of year	€M	-1.57	-0.18	-2.83	-0.54
- Dividends (parent cy)	€M	0.00	0.00	0.00	0.00
+ Additions to equity	€M	0.09	4.00	0.00	0.00
o/w reduction (addition) to treasury shares	€M	0.00	0.00	0.00	0.00
- Unrecognised actuarial gains/(losses)	€M	0.00	0.00	0.00	0.00
+ Comprehensive income recognition	€M	0.92	0.00	0.00	0.00
= Year end shareholders' equity	€M	5.39	9.21	6.38	5.85

Staffing Analytics

		12/20A	12/21E	12/22E	12/23E
Sales per staff	€th	42.8	23.5	138	133
Staff costs per employee	€th	-82.9	-74.6	-70.9	-72.3
Change in staff costs	%	1.01	50.0	90.0	104
Change in unit cost of staff	%	1.01	-10.0	-5.00	2.00
Staff costs/(EBITDA+Staff costs)	%	81.2	126	-312	109

Average workforce	unit	9.00 ⁽¹²⁾	15.0	30.0	60.0
Europe	unit	2.00	4.00	9.00	18.0
North America	unit	7.00	10.0	21.0	32.0
South Americas	unit	0.00	0.00	0.00	0.00
Asia	unit	0.00	0.00	0.00	5.00
Other key countries	unit	0.00	0.00	0.00	5.00
Total staff costs	€M	-0.75	-1.12	-2.13	-4.34
Wages and salaries	€M	-0.75	-1.12	-2.13	-4.34
Pension related costs	€M		0.00	0.00	0.00

Divisional Breakdown Of Revenues

		12/20A ⁽¹⁾	12/21E	12/22E	12/23E
Total sales	€M	0.39	0.35	4.14 ⁽²⁾	7.99 ⁽²⁾
Equipment/ instrument sales	€M	0.00	0.09	2.61	3.40
Consumables/ Reagents	€M	0.00	0.00	1.09	2.79
Service/ Maintenance	€M	0.39	0.25	0.02	0.60
Software Applications	€M	0.00	0.01	0.42	1.20
Other	€M	0.00	0.00	0.00	0.00

Divisional Breakdown Of Earnings

		12/20A ⁽³⁾	12/21E ⁽⁴⁾	12/22E ⁽⁴⁾	12/23E ⁽⁴⁾
Other profit breakdown Analysis Analysis					
Equipment/ instrument sales	€M	0.00	0.03	0.89	1.22
Consumables/ Reagents	€M	0.00	0.00	0.63	1.62
Service/ Maintenance	€M	0.38	0.23	0.02	0.54
Software Applications	€M	0.00	0.01	0.42	1.20
Other/cancellations	€M	0.00	0.00	0.00	0.00
Total	€M	0.38	0.26	1.95	4.58
Other profit breakdown Analysis margin	%	97.9 ⁽¹³⁾	75.0 ⁽³⁾	47.1 ⁽³⁾	57.3 ⁽³⁾

Revenue Breakdown By Country

		12/20A	12/21E	12/22E	12/23E
North America	%	89.4	100		
Europe	%	9.60	0.00		
Other	%	0.00	0.00		

12. Current employee strength is 9 and the target is to reach c.100 by 2025

1. Pro-forma consolidated numbers

2. Based on discussions with management, appropriate discounts have been applied, wherever applicable

3. Gross margin

4. Segment gross margin based on discussions with management, appropriate discounts have been applied, wherever applicable

13. Gross margin was high as majority of the revenue was derived from service/ maintenance contracts

ROCE		12/20A	12/21E	12/22E	12/23E
ROCE (NOPAT+lease exp. *(1-tax))/(net) cap employed adjusted	%	1.07	-2.02	-22.7	-2.79
CFROIC	%	-59.2	-15.9	-40.5	-14.4
Goodwill	€M	4.42	4.42	4.42	4.42
Accumulated goodwill amortisation	€M	0.00	0.00	0.00	0.00
All intangible assets	€M	0.06	0.06	0.06	0.06
Accumulated intangible amortisation	€M	0.00	0.00	0.00	0.00
Financial hedges (LT derivatives)	€M	0.00	0.00	0.00	0.00
Capitalised R&D	€M	3.45	3.45	3.45	3.44
Rights of use/ Capitalised leases	€M	0.00	0.00	0.00	0.00
Other fixed assets	€M	0.00	0.01	0.07	0.16
Accumulated depreciation	€M	0.00	0.00	0.00	0.00
WCR	€M	-1.03	0.05	0.68	1.41
Other assets	€M	0.00	0.00	0.00	0.00
Unrecognised actuarial losses/(gains)	€M	0.00	0.00	0.00	0.00
Capital employed after deprec. (Invested capital)	€M	6.89	7.98	8.67	9.49
Capital employed before depreciation	€M	6.89	7.98	8.67	9.49

Divisional Breakdown Of Capital Employed		12/20A	12/21E	12/22E	12/23E
Equipment/ instrument sales	€M	1.38	1.60	1.73	1.90
Consumables/ Reagents	€M	0.34	0.40	0.43	0.47
Service/ Maintenance	€M	1.03	1.20	1.30	1.42
Software Applications	€M	3.45	4.79	5.20	5.69
Other	€M	0.69	0.00	0.00	0.00
Total capital employed	€M	6.89	7.98	8.67	9.49

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%