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16 June 2020

Expert System

Software

COMPANY REPORT

Buy (vs Hold)

PT: €3.70 (vs €3.15)

Changes	2020E	2021E
Revenue	-9.9%	-15.5%
EPS	NM	NM

Key data

Ticker	EXSY IM
Price (15 June 2020)	**€2.72**
Upside to Price Target (%)	36.0
Market Cap (m)	112
Free Float (%)	67.9
No. of Shares (m)	41.13
1mth perf (%)	(3.8)
3mth perf (%)	73.5
12mth perf (%)	5.0
12mth high-low (€)	4 - 1

Key financials

(In EUR M)

Year to Dec	2019A	2020E	2021E
Group revenue	31.6	31.6	33.6
EBITDA (rep.)	5.5	2.1	(4.7)
EBIT (rep.)	(2.88)	(5.10)	(12.25)
EPS (adj.) (c)	(0.02)	(0.10)	(0.22)
DPS (c)	0.00	0.00	0.00
Net debt/(cash)	2.8	(17)	(4.1)
ROCE (NOPAT) (%)	(1.8)	(15.5)	(36.4)
EPS (adj.) y/y (%)	(76.4)	322.0	122.2
Net debt/EBITDA	0.52	(8.2)	0.88
EV/Sales	3.5	3.7	3.8
EV/EBITDA (adj.)	20.4	56.4	(27.2)
EV/EBIT (adj.)	(177.5)	(22.7)	(10.5)
P/E (adj.)	(115.8)	(27.4)	(12.3)
Dividend yield (%)	0.0	0.0	0.0
Free CF yield (%)	(3.7)	(3.4)	(9.6)
EV/CE	3.2	3.5	3.8

Prices are as of close 15 June 2020

Share price performance (indexed)
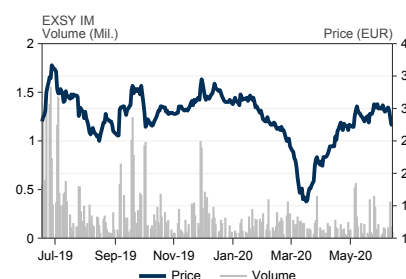
The Path to Lead. Upgrade to BUY.

Summary

- Expert System unveiled the long-awaited business plan to scale up business in the US and boost global growth, building on its robust platform for AI language understanding and the strong momentum of the Artificial Intelligence market. Under the plan, Expert aims to achieve total revenues of €100m, EBITDA of €22m (32%/81% sales/EBITDA CAGR), and positive FCF of €10m in 2024. The plan will involve a net cumulative cash requirement of €30m, of which up to €25m is to be executed through a capital increase (max €20m in July).

- With the appointment of new management with a proven track record of internationally scaling up businesses, and a sound, clear strategy in place shifting towards a SaaS subscription business model away from legacy perpetual licenses/professional services, we turn positive on the equity story. The capital increase announcement should also contribute to eliminating the overhang risk on the stock. We upgrade the stock to BUY, new PT €3.70/share.

Key Points

The ambitious "Path to Lead" 2020-24 plan. Expert is transitioning the business model away from perpetual licenses and professional services in favour of more predictable SaaS-recurring subscriptions, primarily targeting the US market, where almost 80% of the planned 5-year growth should come from. The company will simplify its proprietary technology to allow easier, more pervasive adoption by a wider user community, and it will provide tools and workflows to design, build, deploy and manage natural language solutions at enterprise scale focusing on 3 major verticals (Insurance, Banking, Info/Media/Publishing). The full SaaS integrated platform release is expected to be ready in March 2021. Ahead of 1Q-21, a free public cloud API will be released in July 2020, and a simplified end-to-end platform will follow in October 2020.

Financial targets. Company targets €100m revenues, €22m EBITDA (32%/81% sales/EBITDA CAGR) and a positive FCF generation of 10% sales in 2024. The goal for SaaS/Recurring revenues is 79% of total 2024 revenues (63% CAGR), including 52% from the US (116% CAGR), with Professional Services expected to reduce from 36% to less than 13%. To achieve this, significant investments are expected in R&D (€50m) and sales & marketing (€117m). The net cumulated cash requirement is €30m, of which up to €25m is to be executed through a capital increase (max €20m in July).

New management team with a proven track record of business scalability. The appointment of Walt Mayo as a new group CEO with a strong track record is a positive game-changer for the equity story. Mr Mayo led the growth of an impact venture capital firm focused on scale-up businesses, more than tripling its global market reach and developing new sources of revenue. We see his arrival as instrumental for accelerating the company's expansion in the US, as well as driving a new phase of growth globally.

Estimate changes. We have revised our FY20-24 estimates accordingly to the plan assumptions at the top-line and profitability levels, and incorporated positive FCF generation in 2024. We expect an inflection point of the turnover in 2H-21, following the release of the full SaaS platform in March 2021. We also priced in €20m cash-in from the capital increase to be executed in July and €3m from the one that occurred in May.

Valuation. We value EXSY on a blended average of a DCF (50%), an EV/Sales peer multiples valuation (40%) (profitability should remain highly dependent on the revenue growth and operating leverage over the mid-term), and recent comparable transactions in the software industry (10%). Our valuation yields a fair value per share of €3.70. A successful transition towards a SaaS model, as well as management's delivery against the plan, would lead us to remove the 20% liquidity discount we applied.

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KEY FINANCIALS AND RATIOS

YEAR TO DECEMBER (IN EUR m)	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E
PROFIT & LOSS ACCOUNT								
Group revenue	**22.2**	**25.6**	**28.7**	**31.6**	**31.6**	**33.6**	**46.8**	**67.7**
EBITDA (rep.)	**(2.2)**	**1.0**	**4.6**	**5.5**	**2.1**	**(4.7)**	**(0.3)**	**8.9**
EBIT (rep.)	**(8.55)**	**(6.50)**	**(3.23)**	**(2.88)**	**(5.10)**	**(12.25)**	**(9.83)**	**(2.80)**
Pre-tax results	(9)	(9)	(3)	(1)	(6)	(13)	(11)	(4)
Income tax and other items	0.58	0.35	(1)	(0)	0.41	0.91	0.74	0.25
Net result group	(8)	(8)	(4)	(1)	(5)	(12)	(10)	(3)
Minorities and other items	0	0	0	0	0	0	0	0
Net result shareholders, rep.	**(8)**	**(8)**	**(4)**	**(1)**	**(5)**	**(12)**	**(10)**	**(3)**
EPS, fully diluted (c)	**(0.3)**	**(0.2)**	**(0.1)**	**(0.0)**	**(0.1)**	**(0.2)**	**(0.2)**	**(0.1)**
Exceptionals in EBIT	(2)	(3)	(2)	(2)	0	0	0	0
Profit and Loss Account (adj)								
EBITDA	**(2)**	**1.71**	**4.64**	**5.46**	**2.05**	**(5)**	**(0)**	**8.91**
EBIT	**(6)**	**(4)**	**(1)**	**(1)**	**(5)**	**(12)**	**(10)**	**(3)**
Operating result (company definition)	0	0	0	0	0	0	0	0
Net result, shareholders	(6)	(5)	(2)	1.27	(5)	(12)	(10)	(3)
EPS (adj.) (c)	**(0.29)**	**(0.23)**	**(0.10)**	**(0.02)**	**(0.10)**	**(0.22)**	**(0.18)**	**(0.06)**
CASH FLOW STATEMENT								
EBITDA (rep.)	(2.2)	1.0	4.6	5.5	2.1	(4.7)	(0.3)	8.9
Cash interest and tax payments	(6)	(2)	(3)	(6)	(12)	(8)	(1)	10.2
Change in working capital	(2)	(3)	(3)	0.47	0.02	(1)	2.75	1.71
Other operating cash flow items	12.3	1.29	3.31	2.21	12.0	8.99	(3)	(10)
Cash flow before capex	**1.93**	**(3)**	**2.14**	**1.86**	**2.18**	**(5)**	**(1)**	**11.1**
Capital expenditure	(6)	(6)	(5)	(6)	(7)	(8)	(11)	(12)
Free cash flow	**(4)**	**(8)**	**(3)**	**(4)**	**(5)**	**(13)**	**(12)**	**(1)**
Acquisitions/Disposals/Financial assets	(0)	0.81	(0)	7.10	0	0	0	0
Dividends, minority payouts	0	0	0	0	0	0	0	0
Equity measures, other	4.42	11.2	0	6.70	24.3	0	0.00	(0)
Change in net cash	0.02	3.58	(4)	10	19.7	(13)	(12)	(1)
Net cash (debt)	**(12)**	**(9)**	**(13)**	**(3)**	**17**	**4**	**(8)**	**(9)**
BALANCE SHEET								
Fixed assets	21.8	19.9	20.0	18.4	17.2	17.9	18.9	19.4
Goodwill	8.62	6.01	3.42	3.42	3.42	3.42	3.42	3.42
Current Assets	35.6	36.6	34.6	47.8	67.2	54.3	43.1	40.1
t/o Inventories	0.63	0.10	0.11	0.06	0.12	0.12	0.13	0.14
t/o Trade receivables	10.6	12.5	15.9	20.4	19.9	19.8	20.5	18.5
t/a Cash and equivalents	9	11.2	7.88	21.6	41.4	28.6	16.7	15.7
Group equity	16.4	19.3	15.1	20.9	38.6	26.5	16.7	13.4
t/o Shareholders equity	16.4	19.3	15.1	20.9	38.6	26.5	16.7	13.4
Interest-bearing liabilities	21.5	20.1	20.5	24.5	24.5	24.5	24.5	24.5
Other liabilties and provisions	19.5	17.2	19.1	20.8	21.2	21.1	20.8	21.6
t/ Pension provisions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
t/o Trade libabilities	2.70	2.22	2.81	4.25	4.24	4.14	3.85	4.64
Balance sheet total	**57.4**	**56.5**	**54.7**	**66.2**	**84.4**	**72.2**	**62.0**	**59.5**
Net Working Capital	8.49	10.3	13.2	16.3	15.8	15.8	16.8	14.0
Capital Employed (incl. Goodwill)	30.3	30.2	33.2	34.6	33.0	33.7	35.7	33.5
RATIOS								
Revenue y/y (%)	34.0	15.4	12.1	10.1	(0.0)	6.3	39.3	44.7
EBITDA Margin (adj.) (%)	(10)	6.68	16.2	17.3	6.50	(14)	(1)	13.2
EBIT adj margin (%)	(28.6)	(13.8)	(3.4)	(2.0)	(16.2)	(36.5)	(21.0)	(4.1)
EPS (adj.) y/y (%)	118.4	(19.2)	(56.9)	(76.4)	322.0	122.2	(18.6)	(66.3)
Working capital intensity (%)	38.2	40.3	45.9	51.4	50.0	46.9	35.9	20.8
DSOs	174	177	202	236	230	215	160	100
Inventory turnover (Days)	10.3	1.41	1.39	0.68	1.39	1.36	1.00	0.74
Net debt (cash) / EBITDA (adj.)	(5.5)	5.16	2.71	0.52	(8.2)	0.88	(27.6)	0.99
EBITDA (adj.) / Capex	(0.37)	0.29	0.85	0.92	0.31	(0.58)	(0.03)	0.73
Free CF yield (%)	(5.6)	(8.6)	(3.4)	(3.7)	(3.4)	(9.6)	(9.0)	(0.8)
Oper. FCF Yield (%)	2.4	(5.8)	(0.6)	2.0	6.3	(3.8)	(8.0)	(8.0)

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Case in 6 charts

Artificial intelligence reaching an inflection point

Chart 1 - Natural Language Processing (NLP) market

CAGR 2019-2025E: 31.9%

Values: 2017: 3, 2018: 5, 2019E: 8, 2020E: 12, 2021E: 18, 2022E: 24, 2023E: 30, 2024E: 37, 2025E: 43
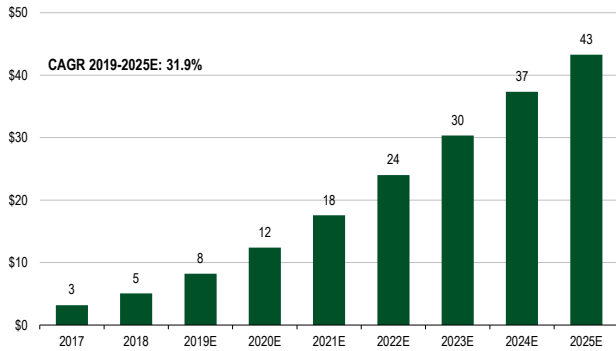
Source: Statista; MainFirst Research

New management with strong track record

Chart 2 - New management CV

EXSY Group CEO
ENDEAVOR Capital: Growth led in venture capital projects
DELL: General Manager for Southern Europe, Australia, Japan and Asia
Served in US diplomatic missions, the White House and the US Congress.
Graduated from Harvard University; MBA University of Virgina

EXSY Group COO
Swiss Re: Head of Digital and AI Solutions; previously Head of IT and Professional Services and Head of Enterprise Content Management
Graduated in Computer Science from Milan University; MBA in technology

Source: MainFirst Research

Expecting strong growth

Chart 3 - Revenue and EBITDA trend (€m)

Revenue: 2019: 34, 2020E: 33, 2021E: 34, 2022E: 48, 2023E: 69, 2024E: 100
EBITDA: 2019: 5, 2020E: 2, 2021E: -5, 2022E: 0, 2023E: 9, 2024E: 22
Revenue YoY %: 2019: 11%, 2020E: -1%, 2021E: 4%, 2022E: 38%, 2023E: 44%, 2024E: 46%

Legend: Revenue, EBITDA, Revenue YoY % (rhs)
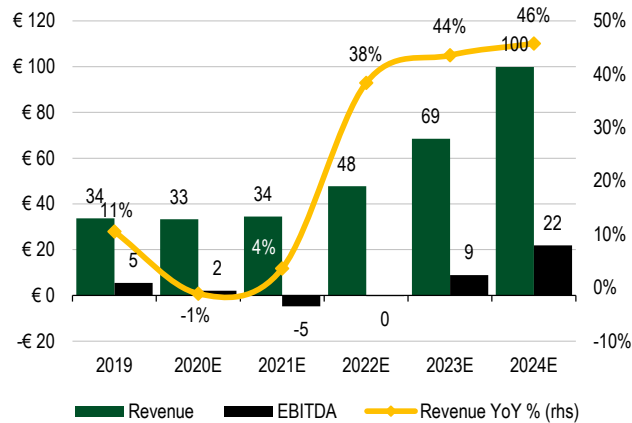
Source: MainFirst Research

Accelerating growth towards recurring revenues

Chart 4 - Revenue breakdown by segment (k€)

SaaS - Recurring revenues: 2019: 10, 2020E: 11, 2021E: 14, 2022E: 27, 2023E: 48, 2024E: 79
Professional Services: 2019: 11, 2020E: 12, 2021E: 12, 2022E: 12, 2023E: 12, 2024E: 13
Rev products & other: 2019: 12, 2020E: 11, 2021E: 9, 2022E: 9, 2023E: 8, 2024E: 8

Legend: SaaS - Recurring revenues, Professional Services, Rev products & other, SaaS YoY % (rhs), PF YoY % (rhs), Other YoY % (rhs)
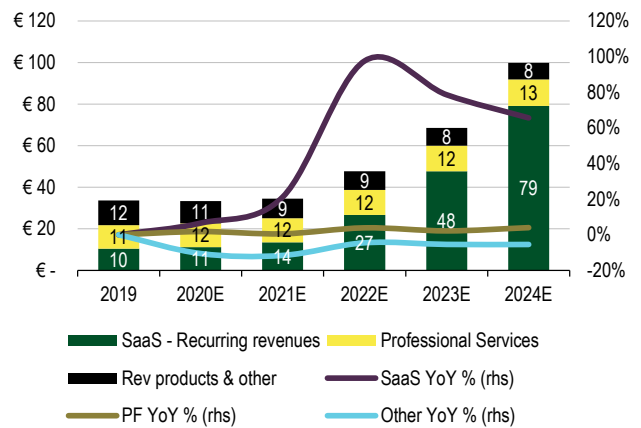
Source: MainFirst Research

Aggressive business scale up in the US

Chart 5 - Revenue breakdown by region (k€)

US: CAGR +79%
RoW: CAGR +12%

RoW: 2019: 30, 2020E: 28, 2021E: 27, 2022E: 30, 2023E: 35, 2024E: 43
US: 2019: 4, 2020E: 6, 2021E: 8, 2022E: 17, 2023E: 33, 2024E: 57

Legend: RoW, US, RoW YoY %, US YoY %
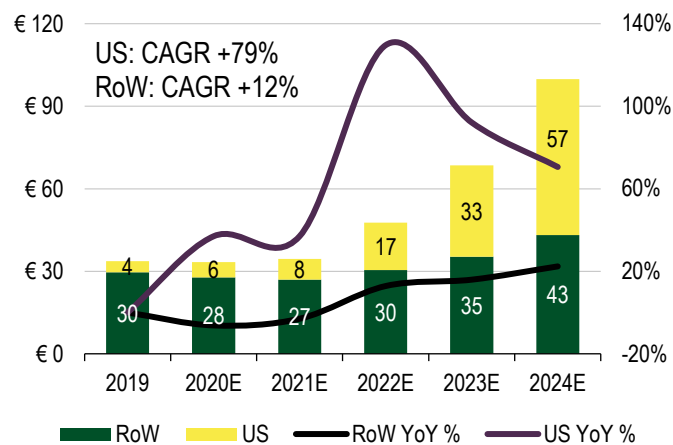
Source: Expert System; MainFirst Research

Cash flow generation turning positive in 2024E

Chart 6 - Net Debt / (Net Cash)* and FCF trend

Net Debt / (Net Cash): 2019: 3, 2020E: -17, 2021E: -4, 2022E: 8, 2023E: 9, 2024E: -2
FCF: 2019: -4, 2020E: -5, 2021E: -13, 2022E: -12, 2023E: -1, 2024E: 11

Legend: Net Debt / (Net Cash), FCF
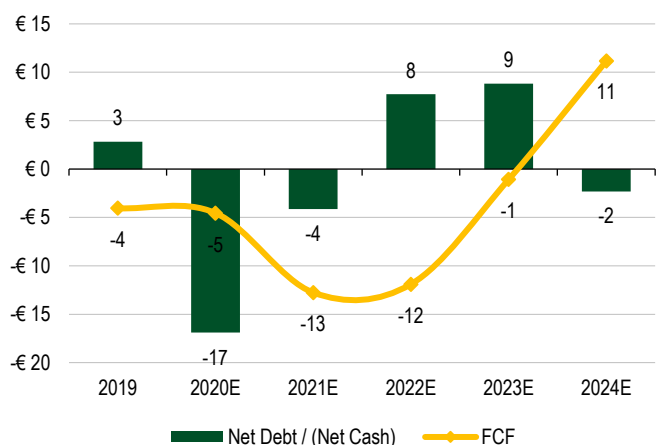
*Source: MF Research; *assuming €20m capital increase*

A new international management team with a proven track record of business scale-up in the US

Expert System's management team has been strengthening since the beginning of 2020 with the arrivals of a new CEO and a new COO. The appointment of Walt Mayo as new Group CEO in early February, in our view, will be instrumental in accelerating the company's expansion in the US as well as driving a new phase of growth globally. Mr Mayo has a strong track-record, having more than 20 years' international experience in the go-to-market general management business execution-side of technology. He worked 15 years for Dell across various roles and accelerated the company's international growth as General Manager for Southern Europe, Australia, Japan and Asia. Afterward, Mr Mayo led the international expansion and operations for Endeavor Global, an impact venture capital firm focused on scaling up operations internationally, particularly from Europe to the US. In March, the company also hired Gabriele Donino as new Group COO. He has 15+ years of international experience in operations as well as insurance, previously being Head of Digital and AI Solutions for the multi-national reinsurer Swiss Re.

Figure 1 - New management CV

EXSY Group CEO

ENDEAVOR Capital: Growth led in venture capital projects

DELL: General Manager for Southern Europe, Australia, Japan and Asia

Served in US diplomatic missions, the White House and the US Congress.

Graduated from Harvard University; MBA University of Virgina

EXSY Group COO

Swiss Re: Head of Digital and AI Solutions; previously Head of IT and Professional Services and Head of Enterprise Content Management

Graduated in Computer Science from Milan University; MBA in technology

Source: MainFirst Research

## Artificial intelligence reaching the inflection point

Annual data generation is expected to reach 44 trillion GB in 2020, up from just 4 trillion GB in 2013. The massive growth in the amount of unstructured data created globally is rapidly accelerating the need to manage higher complexity through faster and more accurate hardware and software, lowering the cost of computing power. This is even more urgent for enterprises, as more than 60% of global firms are sitting on 100+ terabytes of data, 80% of which is unstructured (source: Forrester), hence unusable as it is for analytics and business purposes. Up until today, most digital technologies have been applied to numerical data, rather than text. However, when considering language as another form of data, we see a large market opportunity linked to applying AI solutions related to natural language to enterprises across a broad spectrum of business challenges. The global natural language processing (NLP) market was valued at $8.2bn in 2019, and it is expected to be worth $43.3bn by 2025, registering a CAGR of 31.9% during 2020-2025 (source: Statista). By simplifying its proprietary technology Expert System has the opportunity to bring AI natural language solutions to scale into enterprises, becoming the reference platform in natural language problem-solving.

Chart 7 - Annual data generation globally in ZB
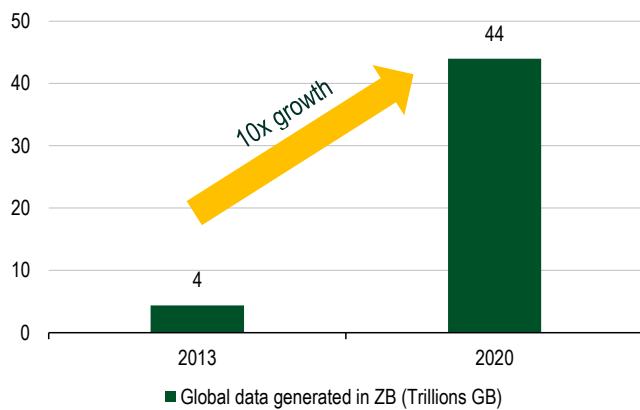
Chart 8 - Natural Language Process (NLP) estimates market
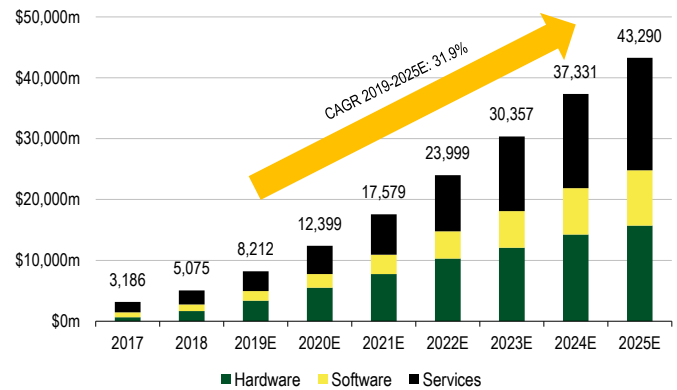
The AI challenges

Despite the market recognition of the value of AI language solutions, we think that complexity remains a major obstacle to successful adoption at scale. The models that are emerging in language space are becoming extremely complicated and the incremental benefits provided have to be counterbalanced for the additional complexity. For instance, OpenAI recently released GPT-3, a deep-learning model for natural-language with 175 billion parameters, 100x more than the previous version, GPT-2. The current challenges across enterprises for adopting AI solutions relate to the availability of the skills and resources you need to master AI systems (ie Data scientists and Chief Data Officers are scarce and expensive) and how to balance accountability and accuracy stemming from black-box models, not mentioning the potential lack of collaboration between data, IT and business teams. All this results in high failure of AI projects: 60% of AI projects never make it to production in 2018 (Gartner source: Expert Systems presentation).

The opportunity to become the reference platform for NLU/ NLP: How do you get a more scalable technology which enables rapid growth?

As Expert System's technology is very solid, with Cogito being the real core engine, we believe the opportunity for the company to scale its business, particularly in US, will be linked on the success around the achievement of the following key pillars:

Technology simplification. Expert System is prioritising the simplification of its technology by creating a design environment totally web-based and highly collaborative to fill the gap between data scientists, developers, IT, and business users. The result would be the creation of an end-to-end SaaS platform for natural language operations tailor built and providing valuable best-in-class proprietary solutions along with free relevant open-source models. The platform will provide tools and workflows to design, build, deploy, and manage natural language solutions at enterprise scale. These developments will further enable a hybrid approach that leverages a mix of natural language understanding and machine learning algorithms that speed deployment, improve performance, and reduce time and costs. We expect the technology simplification will allow easier, more pervasive adoption by a wider user community, leading to much higher end-user adoption.

Building out repeatable use cases focusing on three core verticals. Rather than providing undifferentiated point solutions or a complete do-it-yourself approach, the technology simplification will allow a modular approach, tailored for a few core verticals but that can be further customized for high-end value customers. We expect Expert System to focus on its three most successful verticals, namely **Insurance**, **Information/ publishing/media**, and **Banking & Finance,** where large amounts of unstructured text are critical to the clientele's business processes and the peculiar economic conditions have put higher pressure on expenses and cost savings. Banking, which is seeing mounting pressure from the current low-interest-rate environment and the burden of non-performing loans, could benefit from Expert's language understanding capabilities to downsize the back-office costs; within insurance companies, the claims and underwriting workflow (a typically document-driven business made of unstructured data) could be

easily made more efficient and leaner. These factors considered, **Expert System could emerge as a structural winner from the COVID-19 economic crisis**.

Embedding its own technology as a natural language layer of fast-growing software companies. Expert System sees an opportunity in offering its own technology to software companies involved in cognitive search, sales & marketing augmented insight, and point solutions that depend on language understanding in order to provide its language understanding layer in their stack. We believe this is a very interesting opportunity in the long run to become the reference engine of those software companies that have a natural language in their stack and in fact, licensing their technology in an OEM model.

Strengthening distribution partnerships. Historically, Expert System has provided services related to the implementation of Cogito technology. This includes the feasibility study, the development of the final architecture, and the actual implementation and customer development. Professional services accounted for 40% of turnover in 2019. By simplifying its technology and automating the lower-added value part of what the company used to deliver with professional services, Expert System should enable customers and partners/system integrators to do the last part of customisation. Expert System has intensified its links with third parties since 2019, targeting global system integrators, global consulting firms, and local mid-size players. Its training and certification program involved around 500 professionals from more than 40 companies covering more than 25 countries. We believe that times are now ripe to leverage those business relations and to strengthen its distribution capabilities. Management estimates that the development of the channel distribution will generate c.40% of the turnover by 2024 vs current 10% (c.€3m). The strengthening of the partnerships with third parties will enable it to externalize the lower added value and profitable Professional Services and to maintain them only at the high-end. This should result in a lower Professional Services business' percentage on group sales going forward.

## Accelerating the shift to recurring revenues

Recurring revenues accounted for 76% of total licenses and 31% of total sales in FY-19. Under the plan Expert System will accelerate its transition from the perpetual licenses model in favour of annual recurring licenses and consumption-based pricing with existing and new customers. We expect a short-term deflationary impact on revenues and a more predictable and accretive nature of these contracts over the longer term. We see 2020 as a transition year, also due to the Covid-19, and growth ramp-up in 2H-21 as the full SaaS platform release will occur in 1Q-21. As Expert System is optimising its services functions at the high-end to support the scale up the business, Professional Service revenues should fall below 20% in 2024.

Chart 9 - Revenue breakdown by segment (k€)
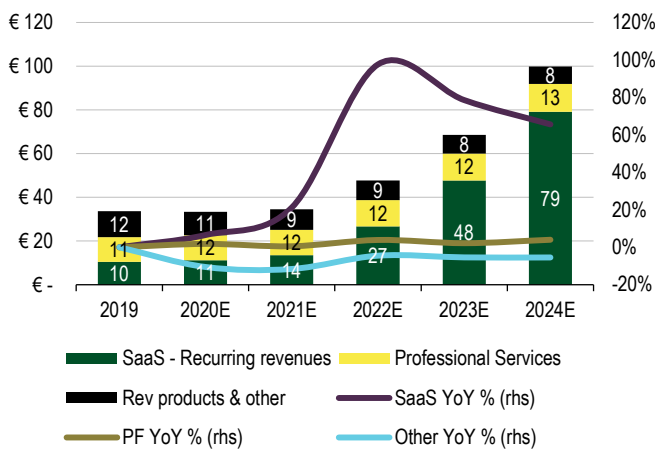
Source: Expert System; MainFirst Research

**Chart 10 - Revenue breakdown by segment (% sales)**

Source: Expert System; MainFirst Research
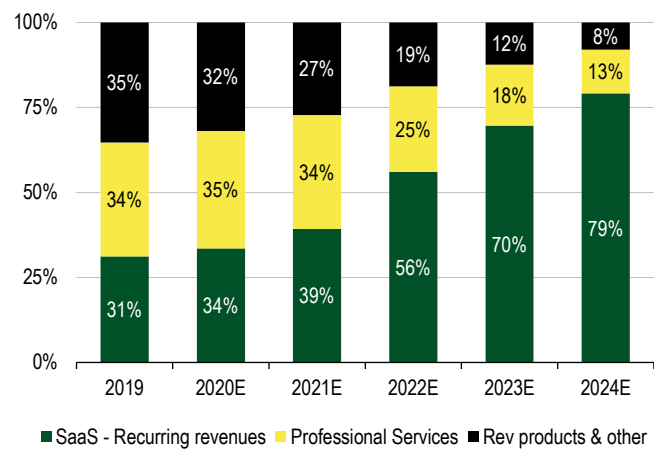
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Double down on the US market.

The core pillar of the new business plan announced is the scale up the business in the US. To achieve this, management will aggressively increase hiring to expand its sales and marketing capacity and customer service to take advantage of the compelling opportunities in the AI space. They also plan to focus on the key verticals of Insurance, Banking and Information/Publishing/Media.

Chart 11 - Revenue breakdown by region (k€)

US: CAGR +79%
RoW: CAGR +12%
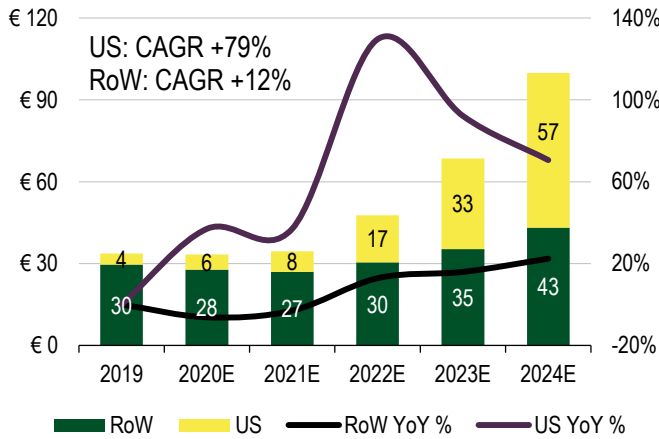
Source: Expert System; MainFirst Research

**Chart 12 - Revenue breakdown by region (% on sales)**
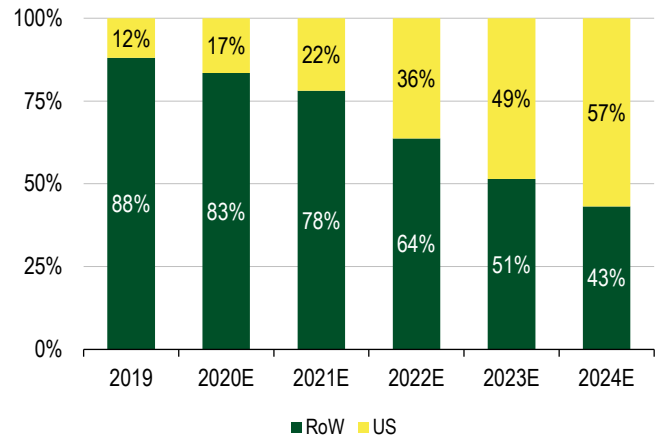
Source: Expert System; MainFirst Research

The US market should benefit from the launch of the new SaaS platform starting from 1Q-20 and is expected to almost triple its turnover in the period 2020-23. The aggressive expansion should be underpinned by the sales & marketing investment plan in the area.

Expanding end-users to accelerate the acquisition at lower cost

From a pricing strategy point of view, Expert System aims to attract open source users and encourage trials with free SaaS access, sweetening price-points at the low-end, and creating up-selling opportunities with product usage. This should enable the firm to accelerate client wins and lower the cost to serve product qualified leads. Management is targeting a wide user community made up of 100k data scientists, 6,000+ enterprise customers, + 500 OEMs, Tier 1/2 solutions integrators. The price points will range from $10k to $500k+ for more sophisticated infrastructures and will be a function of consumption user/volume/functions through full enterprise.

**Figure 2 - Expert System pricing model**
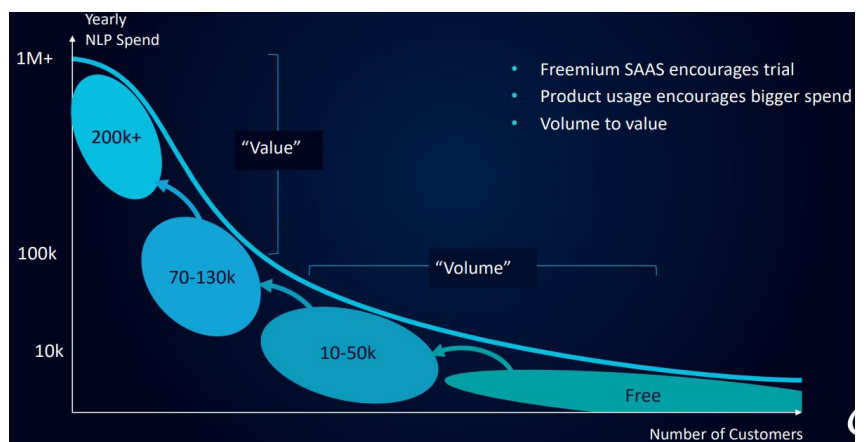
Source: Expert System

Business Plan roadmap

The 2020-2024 "Path to Lead" Strategic Plan will be developed in three phases:

- **2020-2021**, will focus on optimising the go-to-market strategy and the new platform;

- **2022-2023**, will be characterised by high growth following the investments made in both sales and marketing (in terms of human resources and projects) and technology;

- **2024 onward**, strong increase expected in revenues and margins, generating positive cash flow.

**Figure 3 - Expert System - Business Plan Roadmap**
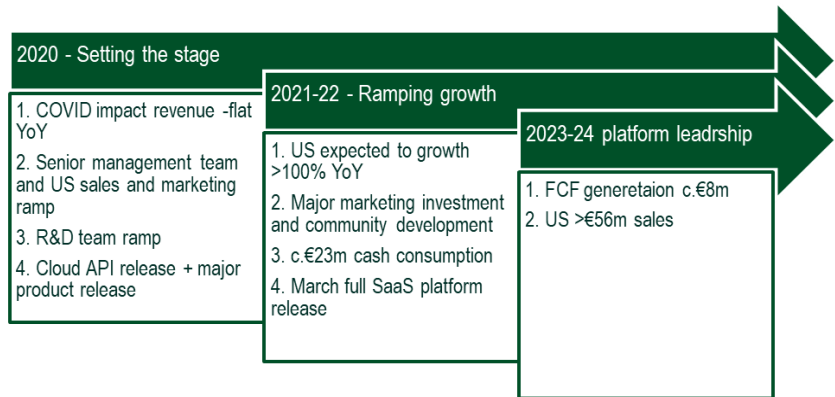
Source: Expert System; MainFirst Research

The product pipeline: fully up and running from March 2021

The strengthening and simplification of the platform will occur through intermediate steps ending with the full SaaS platform in March 2021.

- **July 2020**: the release of a public cloud API; it should be free and with limited functionalities; it should contribute to raise awareness and facilitate the conversion while starting to expose the capability of the platform more broadly;

- **October 2020**: a major step forward with the release of an end-to-end platform environment with simplified tools and meaningful additions to its capabilities;

- **March 2021**: full SaaS integrated platform release with major step-functions implementations in terms of NLOps and HybridNL to combine proprietary and open-source approaches.

Figure 4 - Expert System - Product pipeline
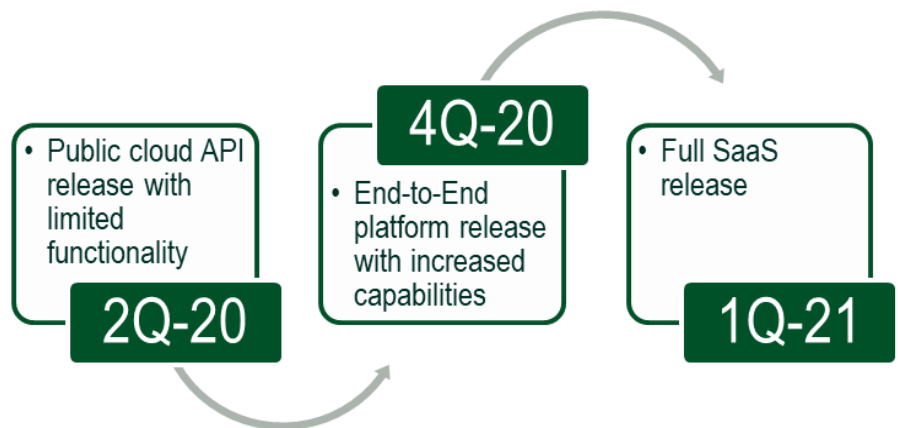
Source: MainFirst Research

Financial targets

Under the "Path to Lead" 2020-2024 strategic business plan, Expert System aims to achieve total revenues of €100m, EBITDA of €22m in 2024 (32% sales CAGR / 81% EBITDA CAGR), reaching a positive FCF generation of €10m in 2024. The goal for SaaS/ Recurring revenues is 79% of total 2024 revenues (63% CAGR) from 31% in 2019, including 52% from the United States (119% CAGR). As a result, Professional Services Revenues are expected to reduce their weight from the current 36% of total revenues to less than 13% in 2024.

In the table below, we show the detailed financial targets provided by Expert System.

Table 1 - Expert System "Path to Lead" 2020-24 financial targets

Financial Targets							
P&L & Cash Flow (figures in €mn)							
	FY-19	**FY-20E**	**FY-21E**	**FY-22E**	**FY-23E**	**FY-24E**	**CAGR '20-24**
Revenues	**33.7**	**33.3**	**34.5**	**47.7**	**68.5**	**99.9**	*32%*
EBITDA	**5.5**	**2.1**	**-4.8**	**-0.4**	**9.0**	**22.1**	*81%*
Sales & Marketing Investments	*na*	8.6	14.1	21.1	29.8	43.8	*50%*
R&D capex	-6.1	-6.5	-8.0	-10.3	-12.0	-13.2	*19%*
Operating Cash Flow	1.9	1.6	-4.2	1.1	10.5	24.1	*97%*
FCF	**-4.0**	**-5.0**	**-12.7**	**-9.8**	**-2.2**	**10.1**	*nm*
Revenues Drivers (figures in €mn)							
	FY-19	**FY-20E**	**FY-21E**	**FY-22E**	**FY-23E**	**FY-24E**	**CAGR '20-24**
SaaS - Recurring revenues	**10.5**	**11.2**	**13.5**	**26.7**	**47.8**	**79.1**	*63%*
YoY growth %	*na*	*7%*	*21%*	*98%*	*79%*	*66%*	
% on sales	31%	34%	39%	56%	70%	79%	
Professional Services	**11.3**	**11.5**	**11.6**	**12.0**	**12.3**	**12.8**	*3%*
YoY growth %	*na*	*2%*	*1%*	*4%*	*2%*	*4%*	
% on sales	34%	35%	34%	25%	18%	13%	
Rev products & other	**11.9**	**10.6**	**9.4**	**9.0**	**8.5**	**8.0**	*-7%*
YoY growth %	*na*	*-11%*	*-12%*	*-4%*	*-5%*	*-5%*	
% on sales	35%	32%	27%	19%	12%	8%	
USA	**4.0**	**5.5**	**7.5**	**17.3**	**33.3**	**56.7**	*79%*
YoY growth %	*na*	*37%*	*37%*	*130%*	*92%*	*71%*	
% on sales	12%	17%	22%	36%	49%	57%	
RoW	**29.6**	**27.8**	**27.0**	**30.4**	**35.3**	**43.2**	*12%*
YoY growth %	*na*	*-6%*	*-3%*	*13%*	*16%*	*22%*	
% on sales	88%	83%	78%	64%	51%	43%	
Other operating metrics							
	FY-19	**FY-20E**	**FY-21E**	**FY-22E**	**FY-23E**	**FY-24E**	
Revenue per employee (€k)	139	114	101	122	156	201	
Implied n. of employees	242	292	342	391	439	497	
Cloud Community Customers (EOP)	*na*	6	62	220	496	890	
Customer Acquisition costs (CAC) Payback	*na*	*na*	18	15	14	12	
Sales on total S&M Spend (%)	*na*	76%	67%	61%	59%	53%	

Source: Expert System; MainFirst Research

Financing plan

The 2020-24 plan will involve net accumulated cash requirements of €30m, which will be raised through various financial instruments, including a **capital increase for a maximum of €25m** to be proposed at the next Shareholders' Meeting on June 26. The BoD aims to partially execute the proxy for up to €20m by July 2020 through:

- Right issue offer of up to €8m;

- Private Placement of up to €12m;

We expect the remaining €5m to be executed as needed at some point later during the plan.

Expert System's BoD also resolved on the following approvals:

- The **'2020-2023 Stock Grant Plan'** for up to 3.2m ordinary shares free of charge (at a ratio of 1:1), to reward employees and ensure that the interests of staff are aligned with those of shareholders over the medium to long term (7% dilution on share capital as of the approval date);

- The **'2020-2023 Stock Option Plan'** for up to 1.8m nominal non-transferrable option rights conditional on subscribing of Expert System ordinary shares (at a ratio of 1:1). The entitlement to the option rights will be subject to the achievement of specific business performance and personal objectives set periodically for each beneficiary.

We acknowledge that back in May the company added two investors, Indaco Venture Partners SGR and Invesco, through the issue of 1.11m shares at €2.7 per share, resulting in gross proceeds of €3m.

Valuation

Our valuation yields a new PT of €3.70/share, obtained as a blended average of a DCF (50% weight), a relative valuation (40% weight) based on EV/Sales peer group multiples (as the profitability should remain highly dependent on the revenue growth and operating leverage over the short-term) and take-out multiples (10% weight). We lowered the weight of the comparable transactions' multiples methodology from 20% to 10% as we believe that the new management team will be focused on successfully executing the plan and transitioning the business towards a SaaS model, hence reducing the speculative appeal on the stock over the short term. We are including the following changes to our DCF be consistent with the new macro context: 3% risk-free rate (vs 2% previously) to take into account recent volatility; ERP increased by 50bps to 6.0% from 5.5%; a rebalanced leverage structure.

We still apply a 20% discount to our valuation to account for the company size and awareness. Higher visibility on the successful transition towards a subscription model, as well as management's delivery against the plan, would lead us to remove the discount.

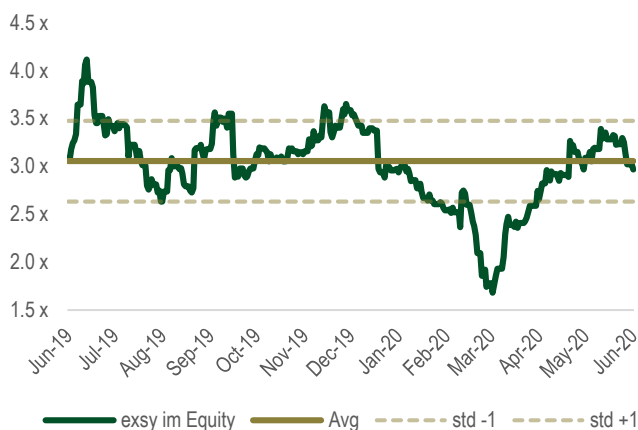**Chart 13 - Expert System - Target Price**
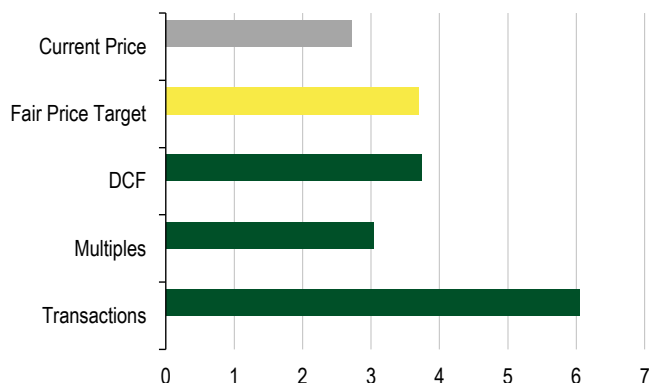
Source: MF Estimates

Table 2 - Expert System - Valuation summary

|	2020E	2021E	2022E	Weight	W. AVG
DCF valuation (WACC @ 7.2%, g @ 3.5%)	4.7			50%	4.7
Multiples	3.9	3.5	3.9	40%	3.8
Transaction multiples	6.7	6.8	9.2	10%	7.6
Fair value per share (Eu)	**5.1**	**5.1**	**6.6**		**4.6**
Liquidity discount					20%
Fair value per share (Eu) - adjusted					**3.70**
Last closing share price					2.72
Upside/(Downside)					36%

Source: MainFirst estimates

Chart 14 - Expert System - FY-2 EV/Sales over 1 year

Source: Bloomberg

Chart 15 - Expert System - FY-2 EV/EBITDA over 1 year
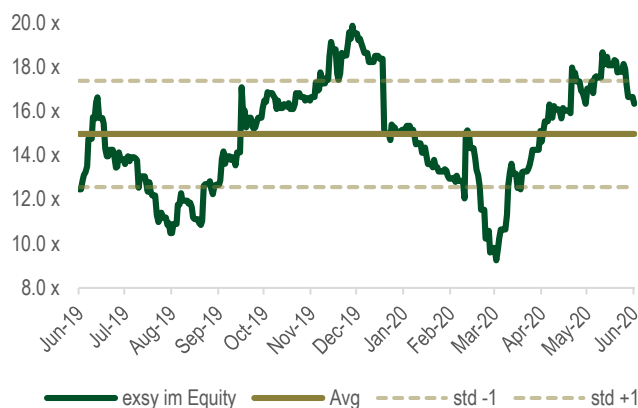
Source: Bloomberg

Key risks to Rating and Price Target

On the downside: the execution risk on the business model migration, potentially leading to a slower-than-expected shift from legacy business to subscriptions affecting top-line growth and business scalability; a poor delivery against the financial targets of the plan outlined; the intensified competition undermining the expansion in US from other SW companies catching up on NLU/NLP capabilities;

On the upside: a faster-than-expected shift to subscriptions; delivery on key-metrics; outstanding hiring in M&S and R&D; further actions to focalize the business on the SaaS model; a potential takeover from a larger SW company or PE stake-building.

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Table 3 - Peer Group Multiples

	HQ	MC (EU mn)	EV/Sales			EV/EBITDA			EV/EBIT			PE		
			2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E
Export System @ our target price	IT	113.1	5.3 x	5.3 x	4.1 x	nm	nm	nm	nm	nm	nm	nm	nm	nm
Export System @ our estimates	IT	113.1	3.7 x	3.9 x	3.1 x	nm	nm	nm	nm	nm	nm	nm	nm	nm
Large Tech Conglomerates														
MICROSOFT CORP	US	1,267,101	9.7 x	8.7 x	7.2 x	20.9 x	19.1 x	16.8 x	26.0 x	24.1 x	21.5 x	33.0 x	30.2 x	26.5 x
ALPHABET INC-A	US	858,474	6.3 x	5.2 x	4.4 x	15.0 x	12.0 x	10.5 x	24.8 x	19.5 x	17.5 x	26.6 x	20.8 x	17.1 x
AMAZON.COM INC	US	1,129,757	3.8 x	3.2 x	2.7 x	28.7 x	20.9 x	16.8 x	118.6 x	59.2 x	39.1 x	77.2 x	48.9 x	35.4 x
IBM	US	96,336	2.3 x	2.2 x	2.2 x	9.3 x	8.6 x	9.5 x	14.7 x	12.5 x	11.8 x	10.9 x	9.8 x	9.3 x
SALESFORCE.COM	US	140,418	9.0 x	7.6 x	6.5 x	30.7 x	25.9 x	21.9 x	54.2 x	46.2 x	36.8 x	60.4 x	58.5 x	48.5 x
Median			**6.3 x**	**5.2 x**	**4.4 x**	**20.9 x**	**19.1 x**	**16.8 x**	**26.0 x**	**24.1 x**	**21.5 x**	**33.0 x**	**30.2 x**	**26.5 x**
Average			**6.2 x**	**5.4 x**	**4.6 x**	**20.9 x**	**17.3 x**	**15.1 x**	**47.7 x**	**32.3 x**	**25.3 x**	**41.6 x**	**33.7 x**	**27.4 x**
Big Data Analytics, Language understanding, Search and Info Management														
NUANCE COMMUNICA	US	5,665	5.3 x	5.2 x	5.0 x	21.5 x	21.6 x	17.3 x				28.4 x	26.0 x	23.4 x
OPEN TEXT CORP	CA	10,124	4.7 x	4.3 x	4.3 x	12.9 x	11.3 x	10.7 x	14.1 x	11.9 x		15.5 x	13.7 x	12.9 x
TREND MICRO INC	JN	7,097	4.0 x	3.8 x	3.7 x	13.5 x	12.8 x	12.2 x	17.7 x	16.4 x	16.2 x	29.3 x	26.1 x	25.4 x
VERINT SYSTEMS	US	2,512	2.5 x	2.6 x	2.4 x	9.8 x	10.4 x	9.0 x				12.0 x	13.6 x	11.6 x
SPLUNK INC	US	25,292	12.3 x	11.8 x	9.4 x	74.4 x			87.4 x		121.3 x	95.5 x		183.8 x
TERADATA CORP	US	2,042	1.4 x	1.4 x	1.3 x	8.1 x	6.7 x	6.5 x	17.4 x	11.9 x	11.3 x	21.7 x	15.7 x	12.0 x
COMMVAULT SYSTEM	US	1,594	2.2 x	2.3 x	2.2 x	12.9 x	16.9 x	15.2 x	18.4 x	16.9 x		25.5 x	33.5 x	28.0 x
MICRO FOCUS INTL	GB	1,658	2.1 x	2.2 x	2.3 x	5.6 x	5.9 x	5.9 x	6.1 x	6.3 x	6.2 x	3.5 x	3.7 x	3.6 x
EPAM SYSTEMS INC	US	11,637	4.8 x	4.0 x	3.3 x	26.1 x	21.2 x	17.2 x	29.2 x	22.3 x	17.2 x	42.6 x	33.4 x	27.4 x
BLUE PRISM GROUP	GB	1,210	7.1 x	5.2 x	4.0 x									
ELASTIC NV	US	6,157	15.7 x	12.3 x	9.7 x									
Median			**4.7 x**	**4.0 x**	**3.7 x**	**12.9 x**	**12.8 x**	**13.7 x**	**17.7 x**	**14.1 x**	**16.2 x**	**25.5 x**	**20.8 x**	**23.4 x**
Average			**5.6 x**	**5.0 x**	**4.3 x**	**20.5 x**	**13.3 x**	**11.8 x**	**27.2 x**	**14.3 x**	**34.4 x**	**30.5 x**	**20.7 x**	**36.5 x**

Source: Bloomberg

Financial Estimates

Change in Estimates

Following the new business plan announcement, we have revised our FY20-24 estimates to incorporate the following:

Revenues: we set our top-line assumptions in line with the company expectations. We now model +33% Net Revenue CAGR over the period 2020-24, to reach €99m in 2024. We expect flat revenue growth in FY20 and mid-single-digit in FY21, with growth more second-half weighted. Once the transition to the SaaS and the implementation of the organisation is completed, growth should start to kick in more meaningfully from 2022. We expect almost 80% of growth coming from US market over the 5 year plan.

EBITDA: we expect EBITDA to reach a thorough in 1H-21 and start bottoming out in 2H-21, due to better cost absorption of marketing &s ales and R&D costs rump-up. We forecast c.€22m EBITDA in 2024, in line with the plan.

FCF: we are modeling negative FCF generation until 2024, with an improvement from 2022 thanks to better profitability and WC management. We estimate the full capitalisation of the €50m R&D costs over the 5 year plan. We expect a cumulated €3m WC inflow in FY20-24 thanks to a significant improvement of the receivable trend as a result of a shift towards a SaaS recurring license revenue model that should have a positive impact on the DSO.

Net Financial Position: we priced in €23m cash inflow from the capital increase of May (€3m) and the upcoming one in July (€20m). We refrain to include the remaining €5m already announced that should be executed at some point in the business plan time horizon. We estimated a Net Financial Position to worsen until 2023 and finally improving in the last year of the plan, landing to around a cash position of c.€2m thanks to the improved profitability and strong cash flow generation;

NOSH and diluting instruments: we included the diluting effect of: 1/ c.1.1m shares related to the €3m capital raise of May, and 2/ c.7.6m potential new shares related to the €20m capital raise in July. Due to the difficulty of predicting the execution subscription price of the upcoming capital increase, this has been estimated as the mid-point of the range c.7.4m - c.8.0m shares obtained simulating different discounts vs the TERP. The two additions would bring the total NOSH at around 48.8m. We also priced in 5m more of diluting financial instruments, namely 3.2m stock grants and 1.8m stock options.

Table 4 - Expert System - MF Change in Estimates

	New Estimtes					Old Estimates				
	2020E	2021E	2022E	2023E	2024E	2020E	2021E	2022E	2023E	2024E
Net revenues	**31.6**	**33.6**	**46.8**	**67.7**	**99.1**	**35.1**	**39.7**	**45.3**	**50.4**	**55.8**
YoY % chg	*0%*	*6%*	*39%*	*45%*	*46%*	*11%*	*13%*	*14%*	*11%*	*11%*
Own work capitalised	6.3	7.8	10.8	11.9	13.1	5.6	6.3	7.2	8.0	8.8
Other revenues and income	1.6	0.9	0.9	0.8	0.7	1.8	1.6	1.4	1.5	1.5
Value of production	**39.5**	**42.3**	**58.5**	**80.4**	**112.9**	**42.5**	**47.6**	**53.9**	**59.9**	**66.1**
Total operating costs	(37.4)	(47.0)	(58.8)	(71.5)	(91.0)	(36.4)	(40.6)	(45.7)	(50.7)	(55.5)
EBITDA	**2.1**	**(4.7)**	**(0.3)**	**8.9**	**21.9**	**6.0**	**7.0**	**8.2**	**9.2**	**10.6**
Margin %	6.5%	-14.1%	-0.6%	13.2%	22.1%	17.2%	17.7%	18.0%	18.3%	19.0%
D&A and writedowns	(7.2)	(7.5)	(9.5)	(11.7)	(14.1)	(5.7)	(6.4)	(7.1)	(7.8)	(8.5)
EBIT	**(5.1)**	**(12.2)**	**(9.8)**	**(2.8)**	**7.9**	**0.3**	**0.7**	**1.0**	**1.4**	**2.1**
Margin %	-16.2%	-36.5%	-21.0%	-4.1%	7.9%	1.0%	1.7%	2.3%	2.8%	3.7%
Financial results	(0.8)	(0.8)	(0.8)	(0.8)	(0.8)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)
EBT	**(5.9)**	**(13.0)**	**(10.6)**	**(3.6)**	**7.1**	**(0.2)**	**0.1**	**0.4**	**0.8**	**1.5**
Taxes	0.4	0.9	0.7	0.2	1.8	0.2	(0.0)	(0.1)	(0.1)	(0.3)
Net Income	**(5.4)**	**(12.1)**	**(9.9)**	**(3.3)**	**8.9**	**(0.0)**	**0.1**	**0.4**	**0.7**	**1.2**
Margin %	-17.2%	-36.0%	-21.0%	-4.9%	8.9%	0%	0%	1%	1%	2%
Operating Cash Flow	**2.2**	**(4.6)**	**(1.3)**	**11.1**	**24.6**	**5.3**	**5.8**	**6.8**	**7.9**	**9.3**
FCF	**(4.5)**	**(12.8)**	**(11.9)**	**(1.1)**	**11.2**	**(1.6)**	**(1.1)**	**0.7**	**1.3**	**2.0**
Net Debt / (Cash)	**(16.9)**	**(4.1)**	**7.7**	**8.8**	**(2.3)**	**1.2**	**2.3**	**1.6**	**0.3**	**(1.7)**

Source: MF Estimates

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New Estimates

Table 5 - Expert System - P&L

	2018	2019	2020E	2021E	2022E	2023E	2024E
Sales and service revenues	**28.7**	**31.7**	**31.6**	**33.6**	**46.8**	**67.7**	**99.1**
% y/y growth	*10%*	*10%*	*0%*	*6%*	*39%*	*45%*	*46%*
Changes in contract work in progress	0.0	-0.1	0.0	0.0	0.0	0.0	0.0
% revenue	0%	0%	0%	0%	0%	0%	0%
Net Revenue, excl. changes in inventories	**28.7**	**31.6**	**31.6**	**33.6**	**46.8**	**67.7**	**99.1**
% y/y growth	*12%*	*10%*	*0%*	*6%*	*39%*	*45%*	*46%*
Own work capitalised	5.0	6.1	6.3	7.8	10.8	11.9	13.1
% net revenue	18%	19%	20%	23%	23%	18%	13%
Other revenues and income	1.8	2.1	1.6	0.9	0.9	0.8	0.7
% net revenue	6%	7%	5%	3%	2%	1%	1%
Total value of production	**35.5**	**39.7**	**39.5**	**42.3**	**58.5**	**80.4**	**112.9**
% yoy growth	*8%*	*12%*	*-1%*	*7%*	*38%*	*37%*	*40%*
Raw materials, consumables and goods for resale	1.8	2.2	1.9	2.0	2.0	2.0	2.0
% net revenue	6%	7%	6%	6%	4%	3%	2%
Cost of services	8.8	9.1	9.8	10.1	10.4	11.2	13.1
% net revenue	31%	29%	31%	30%	22%	17%	13%
Use of third-party assets	1.4	1.5	1.7	1.7	1.9	2.0	2.0
% net revenue	5%	5%	6%	5%	4%	3%	2%
Personnel costs	18.6	18.8	23.7	32.9	44.0	55.5	72.9
% net revenue	65%	59%	75%	98%	94%	82%	74%
Provisions for risks	0.0	0.0	0.0	0.0	0.0	0.0	0.0
% net revenue	0%	0%	0%	0%	0%	0%	0%
Sundry operating expenses	0.3	0.0	0.3	0.3	0.5	0.7	1.0
% net revenue	1%	0%	1%	1%	1%	1%	1%
EBITDA	**4.6**	**5.5**	**2.1**	**-4.7**	**-0.3**	**8.9**	**21.9**
% margin	16.2%	17.3%	6.5%	-14.1%	-0.6%	13.2%	22.1%
Amortisation, depreciation and write-downs	7.9	8.3	7.2	7.5	9.5	11.7	14.1
% net revenue	0.3	0.3	0.2	0.2	0.2	0.2	0.1
EBIT	**-3.2**	**-2.9**	**-5.1**	**-12.2**	**-9.8**	**-2.8**	**7.9**
% margin	-11.2%	-9.1%	-16.2%	-36.5%	-21.0%	-4.1%	7.9%
Financial income and expenses	0.1	0.0	-0.8	-0.8	-0.8	-0.8	-0.8
Income from equity investments	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Value adjustments of financial assets and liabilities	0.0	2.3	0.0	0.0	0.0	0.0	0.0
Extraordinary income and expenses	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Pre-tax profit	**-3.1**	**-0.8**	**-5.9**	**-13.0**	**-10.6**	**-3.6**	**7.1**
Income taxes	-0.6	-0.2	0.4	0.9	0.7	0.2	1.8
% tax rate	*-21%*	*-26%*	*7%*	*7%*	*7%*	*7%*	*-25%*
Net income	**-3.8**	**-1.0**	**-5.4**	**-12.1**	**-9.9**	**-3.3**	**8.9**
Minority interests	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income attributable to shareholders	**-3.8**	**-1.0**	**-5.4**	**-12.1**	**-9.9**	**-3.3**	**8.9**
% margin	-0.1	0.0	-0.2	-0.4	-0.2	0.0	0.1
Ordinary shares	35.9	39.9	48.8	48.8	48.8	48.8	48.8
Earnings per share	**-0.105**	**-0.025**	**-0.112**	**-0.248**	**-0.202**	**-0.068**	**0.182**
Diluting fin. Istruments	2.1	1.9	6.1	6.1	6.1	6.1	6.1
Earnings per share - Diluted	**-0.100**	**-0.023**	**-0.099**	**-0.220**	**-0.179**	**-0.060**	**0.161**
Adjusted Earnings per share - Diluted	-0.100	0.030	-0.099	-0.220	-0.179	-0.060	0.161

Source: MF Estimates

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Table 6 - Expert System - Cash Flow Statement

	2018	2019	2020E	2021E	2022E	2023E	2024E
Profit for the year	-3.781	-0.983	-5.445	-12.101	-9.851	-3.318	8.868
Portion of amortisation	7.867	8.337	7.157	7.526	9.547	11.712	14.072
Other	0.604	-2.413	0.000	0.000	0.000	0.000	0.000
Changes in net working capital	-2.547	-3.083	0.468	0.017	-1.023	2.749	1.706
o/w change in trade receivables	-3.511	-4.573	0.535	0.121	-0.723	1.967	-0.458
o/w change in other short-term receivables	0.856	0.000	0.000	0.000	0.000	0.000	0.000
o/w change in inventories	-0.010	0.051	-0.062	-0.004	-0.004	-0.008	0.013
o/w change in short-term payables	0.119	1.439	-0.005	-0.100	-0.296	0.790	2.151
Cash flow generated by operations (a)	**2.143**	**1.857**	**2.180**	**-4.558**	**-1.326**	**11.143**	**24.646**
Net change tangible and intangible fixed assets	-5.488	-5.904	-6.727	-8.200	-10.570	-12.224	-13.482
Net change financial fixed assets	-0.418	0.000	0.000	0.000	0.000	0.000	0.000
Disposals / (Acquisitions)	0.000	7.098	0.000	0.000	0.000	0.000	0.000
Cash flow from investing activities (b)	**-5.906**	**1.194**	**-6.727**	**-8.200**	**-10.570**	**-12.224**	**-13.482**
Free cash flow	**-3.345**	**-4.047**	**-4.547**	**-12.758**	**-11.896**	**-1.081**	**11.164**
M/L term financing reimbursement	-5.376	0.000	0.000	0.000	0.000	0.000	0.000
Financing acquisition	5.787	0.000	0.000	0.000	0.000	0.000	0.000
Bonds issue	0.000	5.000	0.000	0.000	0.000	0.000	0.000
Changes shareholders'equity reserve	0.000	7.000	23.000	0.000	0.000	0.000	0.000
Cash flow from financing activities (c)	**0.412**	**12.000**	**23.000**	**0.000**	**0.000**	**0.000**	**0.000**
Net increase/(decrease) in cash and cash equiva	**-3.352**	**15.051**	**18.453**	**-12.758**	**-11.896**	**-1.081**	**11.164**
Cash and cash equivalents at start of year	11.235	7.883	22.934	41.387	28.629	16.732	15.651
Cash and cash equivalents at year end	7.883	22.934	41.387	28.629	16.732	15.651	26.816

Source: MF Estimates

Table 7 - Expert System - Balance Sheet (€m)

	2018	2019	2020E	2021E	2022E	2023E	2024E
Trade receivables	15.873	20.447	19.912	19.792	20.515	18.548	19.005
Inventories and work in progress	0.109	0.059	0.121	0.125	0.128	0.137	0.124
Trade payables	2.808	4.247	4.242	4.142	3.847	4.637	6.788
Total trade working capital used	**13.175**	**16.258**	**15.791**	**15.774**	**16.797**	**14.048**	**12.342**
Tangible assets	0.715	0.702	0.812	0.947	1.040	1.176	1.275
Intangible assets	14.734	13.092	11.833	12.372	13.302	13.678	12.989
Financial assets	1.232	1.232	1.232	1.232	1.232	1.232	1.232
Total fixed asset	16.681	15.026	13.878	14.551	15.574	16.086	15.496
Other current assets/(liabilities)	-1.927	-6.934	-7.872	-7.872	-7.872	-7.872	-7.872
Other non current assets/(liabilities)	1.879	1.750	2.260	2.260	2.260	2.260	2.260
Employees' severance indemnity	-2.143	-2.312	-2.312	-2.312	-2.312	-2.312	-2.312
Total Net Invested Capital	**27.665**	**23.788**	**21.744**	**22.401**	**24.447**	**22.209**	**19.913**
Net Financial Position	12.587	2.834	-16.905	-4.147	7.749	8.830	-2.334
Shareholders' Group Equity	15.077	20.954	38.649	26.548	16.698	13.380	22.247
Minority interests	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net Debt/(Net Cash) and equity	**27.665**	**23.788**	**21.744**	**22.401**	**24.447**	**22.209**	**19.913**

Source: MF Estimates

Company Snapshot

Investment case summary

Expert System benefits from the secular growth trend in the digitalization affecting almost all sectors, particularly those with mounting pressure to downsize back-office costs and utilize artificial intelligence. Following a successful capital increase in 2019, adding three well-respected businessmen as shareholders, the company appointed a new international management team with a strong track record of business scale-up, particularly in US. A new ambitious 5-year business plan has been presented in June 2020, providing visibility on the path that should lead the business shifting from a perpetual license to a SaaS subscription-based model, leading to a higher proportion of recurring revenues and higher profitability longer term.

Target price methodology

Our target price is based on a weighted average of the following methodologies:

- 50% DCF (Risk free rate 3.5%; terminal growth of 3.5% and WACC of 7.2%)

- 40% relative valuation

- 10% take out multiples

Risk to our valuation and rating

- Execution risk on the model migration (-)

- A slower-than-expected shift from legacy business to subscriptions affecting top-line growth and business scalability (-)

- Intensified competition undermining the expansion in US (-)

- Poor delivery against the financial targets of the plan (-)

- A faster-than-expected shift to subscriptions and delivery on key-performance indicators (+)

- Outstanding hiring in M&S and R&D (+)

- Further actions to focalize the business on the SaaS model (+)

- Potential takeover from a larger SW company or PE stakebuilding (+)

Key dates

- 26 / 29 June: Extraordinary Shareholders' Meeting

- 28 September: 1H-20 Results

Company description

Founded in Bologna in 1989, Expert System is an Italian-established player specialising in developing cognitive computing and text analytics software based on artificial intelligence (AI) algorithms since 2000. EXSY's flagship product is called Cogito. Since the IPO in 2014, EXSY has raised around €32m through various capital increases. The company delivered a solid low double digits revenue CAGR in 2014-19, driven by c.10% organic growth. The company has appointed a new American Group CEO in February 2020 and presented the "Path to Lead" 2020-24 Plan in June 2020.

Key products, clients and end markets

The company's flagship product is called Cogito, a cognitive technology that is able to simulate the human ability of reading and fully understanding the language. Cogito has been recognised in Gartner's 2019 Magic Quadrant for the third year in a row and a leading AI text analytics platform in 2018 by Forrester. The clientele is diversified across sectors including Banking & Insurance, Media & Publishing, Oil & Gas, Life Science & Pharma, Industrials & Utilities and various Government agencies.

Key shareholders

- Ergo Srl (9.7%)

- Marco Varone (7.7%)

- Stefano Spaggiari (7.7%)

- Paolo Lombardi (7.0%)

- Free float (67.9%)

Senior management

- President and CTO: Marco Varone

- Founder and CEO Italy: Stefano Spaggiari

- Group CEO: Walt Mayo

- Group COO: Gabriele Donino

- Group CFO: Valentina Biscotti

- Executive VP Europe: Claudio Palmolungo

- CEO EXSY USA: Louis Andre

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Completed: 15 June 2020 16:29EDT
Disseminated: 16 June 2020 01:00EDT

Expert System (EXSY IM) as of June 12, 2020 (in EUR)
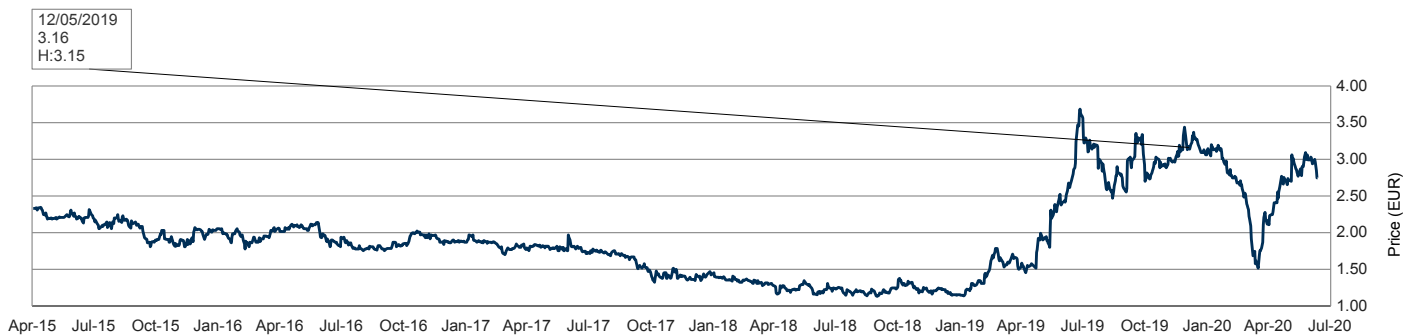
*Represents the value(s) that changed.

Buy=B; Hold=H; Sell=S; Discontinued=D; Suspended=SU; Discontinued=D; Initiation=I

For a price chart with our ratings and any applicable target price changes for EXSY IM go to
http://stifel2.bluematrix.com/sellside/Disclosures.action?ticker=EXSY IM

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