

Elsight Limited

Elsight Limited

(ASX:ELS)

Information Technology

Australia

Risk: High

Video and data transmission in the Age of Connectivity

Israel-based Elsieht Limited (ELS) has developed algorithms that, combined with the company's hardware products, enable government and corporate customers to transmit uninterrupted, encrypted video and data streams in real-time.

Elsight Limited (ASX:ELS) has developed algorithms that facilitate secure and highly reliable wireless video and data transmissions from remote cameras to control rooms and command centers. Application areas include Autonomous Vehicles, Home Land Security, drones, Military, armored vehicles, Telemedicine, live broadcasting and logistics.

In our view, ELS offers a highly relevant solution for wireless video and data transmissions in the Age of Connectivity where Autonomous Vehicles, Homeland Security, Drones, Telemedicine etc all require increasingly fast, reliable and secure communication of video and data.

Multichannel is the future for secure and reliable transmissions

Secure transmissions are achieved by encrypting and splitting up each transmission into 4 separate streams (multichannel) that are reassembled at the destination. Reliability of transmissions is achieved through full network redundancy with signals automatically being routed across the most stable channel. Encoding parameters, such as transmission rate and video resolution, are adapted on-the-fly based on the available bandwidth to ensure uninterrupted transmissions.

Major opportunities in Autonomous Vehicles and Security

While ELS' technology has many application areas, such as Unmanned Aerial Vehicles (drones), live broadcasting and transportation, we believe the company's largest opportunities are the fast-growing Autonomous Vehicles sector, Telemedicine and Security, i.e. law enforcement, emergency response services, border protection, Homeland Security, the Military etc.

Israeli government tender win presents TAM >US\$ 100M

We believe the company's recent tender win with the Israeli Ministry of Public Security (police, fire departments, prison security etc) to exclusively provide Communications-On-The-Move (COTM) is testament to the company's technology and competitive edge. This contract win presents a Total Addressable Market (TAM) in the next 5 years for ELS of more than US\$ 100M, according to our calculations. Consequently, we anticipate strong revenue growth resulting from this commercial win going forward.

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Hikvision deal has the potential to become really big, really fast

ELS' commercialization strategy is mainly based on sales through channel partners, such as IT integrators, OEM's, resellers etc in the company's six relevant industry verticals. The company recently announced a strategic

	US\$ M	FY16A	FY17E	FY18E	FY19E	
Number of shares (m)	83.4	Revenues	0.9	1.1	4.6	9.0
Number of shares FD (m)	129.0	EBITDA	0.2	-0.8	1.6	4.1
Market capitalisation (A\$ m)	125.9	NPAT	0.1	-2.0	1.2	3.2
Free Float (%)	100%	EPS FD	129.0	129	129	0.02
12 month high/low A\$	1.51 / 0.135	EV/EBITDA	N/M	N/M	60.3	22.5
Average daily volume (tr)	350.0	EV/Sales	N/M	89.4	20.6	10.4

BUY

Current price: A\$ 1.51

Price target: A\$ 2.60

27 November 2017

Readers should be aware that TMT Analytics has been engaged and paid by the company covered in this report for ongoing research coverage. Please refer to the final page of this report for the General Advice Warning, disclaimer and full disclosures.

Analyst: Marc Kennis

marc.kennis@tmt-analytics.com.au

+61 (0)4 3483 8134

alliance with Hikvision, the world's largest manufacturer of video surveillance products. We believe this will bring very substantial revenue opportunities to ELS on the back of Hikvision's global presence, even assuming very conservative uptake of ELS' solutions by Hikvision's customers. We anticipate ELS will be able to sign additional partnerships in the near to medium term, further strengthening its distribution power.

Starting coverage with a BUY rating

ELS is addressing multiple, large industry verticals with products and solutions that have a distinctive edge compared to other real-time video transmission products, specifically superior reliability and security of transmissions.

We believe ELS' existing high-value contracts and partnerships are testament to the company's competitive edge in this market and substantiate our financial projections.

Execution will be key to further upside in our price target

Based on our current estimates our 12-month price target for ELS of A\$ 2.60 per share is derived from our DCF-based fair value per share using a 14% WACC.

However, the company's various addressable market verticals are very substantial in size and the company may be able to capture a substantially larger share of its target markets than we have currently modelled. This will become apparent over the next 12 to 24 months.

Strong execution of its sales strategy and the potential to (substantially) exceed our current projections will therefore be key share price catalysts in the near to medium term, in our view.

We start our research coverage of ELS with a BUY recommendation and an initial price target of A\$ 2.60 per share.

Other near-term share price catalysts / Key Performance Indicators

- Commencement of revenue generation from the recent tender win with Israeli Ministry of Public Security.
- New contract/tender wins with government and corporate customers.
- Additional significant channel partner announcements, similar to Hikvision and Alrena.

US\$ M

FY-end December

Profit & Loss account	FY16A	2017E	2018E	2019E
Revenues	0.9	1.1	4.6	9.0
EBITDA	0.2	-0.8	1.6	4.1
EBITDA %	20.6%	-71.3%	34.2%	46.2%
Depreciation & Amortisation	0.0	0.0	0.0	0.0
EBIT	0.2	-0.8	1.6	4.1
EBIT %	18.9%	-72.9%	33.7%	45.9%
Interest income & expense net	-0.1	-0.1	0.0	0.0
Other items	0.0	-1.2	0.0	0.0
Profit before Tax	0.1	-2.0	1.5	4.1
Taxes	0.0	0.0	-0.4	-0.9
Net earnings	0.1	-2.0	1.2	3.2
Ordinary shares outstanding	83	83	83	83
Fully diluted # shares	129	129	129	129
Earnings per share	0.001	-0.02	0.014	0.038
Earnings per share fully diluted	0.001	-0.02	0.009	0.024

Cash Flow Statement	FY16A	2017E	2018E	2019E
Net income P&L	0.1	-2.0	1.2	3.2
Depreciation & amortisation	0.0	0.0	0.0	0.0
Impairments	0	0.0	0.0	0.0
Change in working capital	-0.1	-0.2	-1.1	-1.6
Other items	0.004	0.0	0.0	0.0
Cash flow from operations	0.1	-2.2	0.2	1.8
Net cash flow from investments	0.008	0.0	-0.1	-0.1
Dividend paid	0.0	0.0	0.0	0.0
Change in equity	0.0	5.0	0.0	0.0
Change in debt	-0.12	0.0	0.0	0.0
Other items	0.032	-1.6	0.0	0.0
Cash flow from financing	-0.1	3.4	0.0	0.0
Net cash flow	0.0	1.1	0.2	1.7

Balance Sheet	FY16A	2017E	2018E	2019E
Current assets				
Cash and marketable securities	0.1	1.2	1.3	3.0
Accounts receivable	0.1	0.1	0.4	1.0
Inventories	0.3	0.3	1.4	2.7
Other current assets	0.0	0.1	0.2	0.4
Total current assets	0.5	1.6	3.4	7.1
Fixed assets				
Net property, plant & equipment	0.06	0.1	0.1	0.2
Goodwill	0.0	0.0	0.0	0.0
Other intangible assets	0.0	0.0	0.0	0.0
Other assets	0.0	0.0	0.0	0.0
Total fixed assets	0.1	0.1	0.1	0.2
Total assets	0.6	1.7	3.5	7.3
Current liabilities				
Short-term debt	0.1	0.1	0.1	0.1
Accounts payable	0.3	0.3	0.3	0.9
Dividends payable	0.0	0.0	0.0	0.0
Other current liabilities	0.7	0.8	0.6	0.5
Total current liabilities	1.2	1.1	1.5	1.9
Long-term debt	1	0.4	0.4	0.4
Total provisions	0.0	0.0	0.0	0.0
Total group equity	-1.4	0.3	1.6	5.0
Total liabilities and equity	0.6	1.7	3.5	7.3

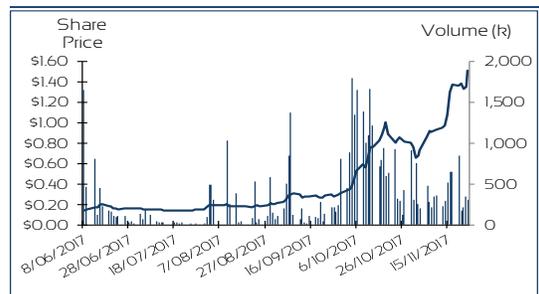
Valuation	FY16A	2017E	2018E	2019E
Relative valuation				
P/E (reported)	N/M	349.4	59.3	19.2
P/B	N/M	349.4	59.3	19.2
P/CF	N/M	N/A	442.1	54.6
Price to sales	101.3	90.1	20.8	10.7
EV / sales	N/M	89.4	20.6	10.4
EV / EBITDA	N/M	N/M	60.3	22.5
Dividend yield	0.0	0.0	0.0	0.0
EV / Common equity	-64.5	-67.0	346.2	57.8
Discounted Cash Flow				
<i>Assumptions</i>				
Long term interest rate				2.5%
Risk premium				5.75%
Marginal tax rate				23%
Long term growth				3%
Leveraged Beta				1.49
Implied WACC				11.1%

TMT Analytics applied WACC	14%
DCF fair value per share	A\$ 2.60

Profitability ratios	FY16A	2017E	2018E	2019E
Return on Equity	-6%	-745%	72%	63%
Return on Assets	14%	-117%	33%	43%
Return on Invested Capital	-29%	125%	-307%	363%
EBITDA margins	20.6%	-71.3%	34.2%	46.2%
EBIT margins	18.9%	-72.9%	33.7%	45.9%
Net margins	8.3%	-192.1%	25.2%	35.1%

Financial Strength	FY16A	2017E	2018E	2019E
Net debt	0.8	-0.7	-0.9	-2.5
Net debt / Equity	-0.5	-2.6	-0.5	-0.5
Net debt / EBITDA	3.9	0.9	-0.6	-0.6
Interest coverage	N/M	N/M	N/M	N/M

Capital Structure	
Ordinary shares	83
Performance shares	-
Options and warrants (m)	46
Fully diluted	129
Market capitalisation (A\$ m)	125.9
Market cap. fully diluted (A\$ m)	194.8
Free float %	100%
12 month high/low A\$	1.51 / 0.135
Average daily volume (tr)	350.0



Source: Factset, TMT Analytics

Video and data transmission in the Age of Connectivity

Elsight Limited (ELS) has developed algorithms that, combined with the company’s hardware products, enable customers to transmit uninterrupted, encrypted video and data streams in real-time. Key customers, prospects and target markets include emergency responders, police and fire departments, military and special forces, border patrol, armored transportation, telemedicine, remote facility management, drone and unmanned aerial vehicles, broadcasting and autonomous vehicles.

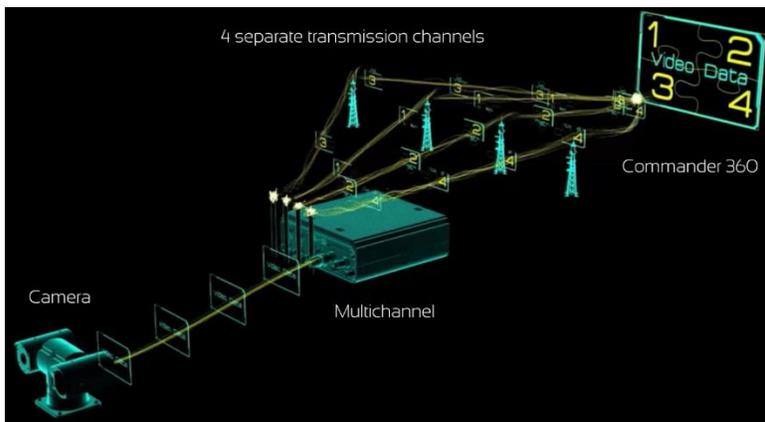
The autonomous vehicles segment in particular, while still nascent today, is likely to be a very fast-growing market segment for ELS going forward, in our view.

Security and reliability are essential for customers

ELS’ unique selling points are the security and reliability of the real-time transmissions, which is mission-critical for the company’s customers. Reliability of transmissions is achieved through full network redundancy, i.e. each module can transmit across Wi-Fi and cellular networks with satellite transmission as a fallback option. Signals are automatically routed across the most stable channel, and rerouted if necessary.

Furthermore, encoding parameters, such as transmission rate and video resolution, are adapted on-the-fly based on the available bandwidth so as to ensure continued transmission.

FIGURE 1: VIDEO STREAM FROM CAMERA TO CONTROL PANEL



Source: Elsight

Transmission security is achieved by encrypting and splitting up each transmission into 4 separate package streams that are reassembled at the destination (Figure 1). Any individual video stream that may be intercepted by adversaries will be useless without the other streams, which are transmitted across other channels.

The software algorithms that manage the encryption, signal splitting at the source, channel allocations, channel monitoring and reassembly of the individual streams at destination constitute ELS’ secret sauce.

The company’s hardware products consist of standard components, assembled by ELS.

Product range to suit a wide range of application areas

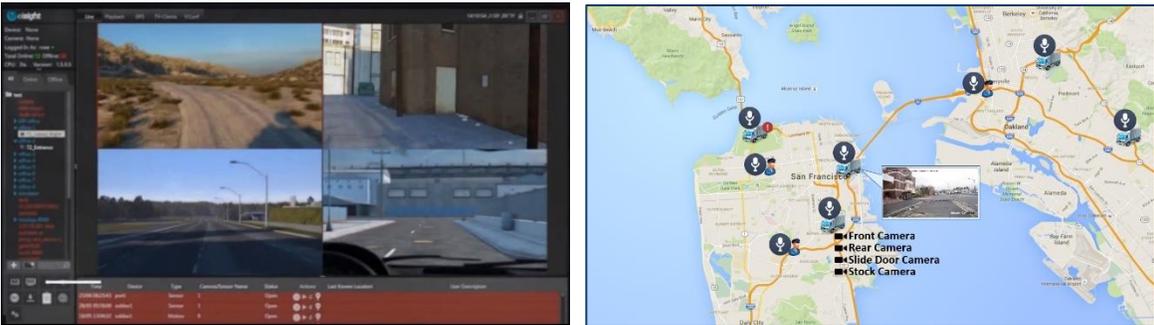
ELS sells multiple hardware products and a software suite with Command & Control functionality, which was developed in cooperation with the Israeli defense forces.

Commander 360

ELS' Commander 360 software suite (Figure 2) provides Command & Control (CC) functionality, such as video playback of up to four separate streams and simultaneous replay of one of these streams, video dispatch, two-way audio chat, sensor-triggered video playback etc.

The Commander 360 software ties incoming video streams together and essentially provides users with a (virtual) control room with alarm pop ups and live video on maps.

FIGURE 2: ELS' COMMANDER 360 COMMAND & CONTROL SOFTWARE SUITE



Source: Elsieht

Multichannel

ELS' Multichannel product (Figure 3) provides transmission, digital video recording (DVR) and gateway functionality to facilitate uninterrupted transmission of live video and audio streams across a secured VPN (Virtual Private Network). Uninterrupted transmissions are achieved by aggregating network links from 3G, LTE (Long Term Evolution), Ethernet, satellite, Wi-Fi and Wi-Max, and automatic detection of network channel failures.

FIGURE 3: ELS' MULTICHANNEL (LEFT) AND TWSU PRODUCTS



Source: Elsieht

Multichannel breaks up the video stream into four separate, encrypted, streams that are sent across different channels. and are reassembled at their destination, i.e. in the Commander 360 environment. Multichannel can operate stand alone or as a network hub for other ELS products.

In addition to video and data transmissions from remote, mobile locations, we believe multichannel technology in itself has application areas, such as robotics, that ELS may address in the longer term using its existing technology.

Tactical Wearable Surveillance Units

ELS' Tactical Wearable Surveillance Unit (TWSU) provides portable, full HD video and two-way audio communication functionality as well as GPS positioning, picture capturing and video and audio recording. TWSU's use cellular and Wi-Fi networks and can be connected to helmet and infra-red camera's.

Mobile DVR

The RiderM-04 is ELS' mobile digital video recorder (DVR), specifically designed to be fitted into vehicles, such as police cars, armored vehicles, delivery trucks and military vehicles. Similar to the TWSU, the Rider (Figure 4) can record and transmit full HD video and facilitates two-way audio communication through a built-in cellular modem. It can also be paired with ELS' Multichannel to enable secure and uninterrupted video transmissions.

FIGURE 4: ELS' MOBILE DVR AND DVS (RIGHT)



Source: Elsight

Connectivity to third-party cameras

Rather than manufacture cameras itself, ELS sources and resells cameras from third-party suppliers that integrate with the company's product range. ELS' products can also be integrated with existing cameras in the field, i.e. the company is able to address the huge installed base of existing cameras, both mobile and stationary.

Multiple fast-growing industry verticals to address

With the functionality of its products, ELS can address a multitude of markets globally, in our view. To be most effective, the company has focused its sales strategy on six distinct industry verticals with the highest potential.

1. Autonomous Vehicles market to grow to US\$ 127Bn by 2027

Most industry players active in the autonomous vehicle segment, such as chip manufacturers, car manufacturers and automotive component suppliers, predict that fully autonomous vehicles will become available in the 2020-2022-timeframe.

Research & Markets forecasts growth of 39.6% (CAGR) for autonomous vehicles from 2017 to 2027, implying a global market size of US\$ 126.8BN by 2027.

We see great opportunities for companies like ELS to supply specific components to this industry, specifically V2X modules and on-board cameras with integrated, secure, connectivity.

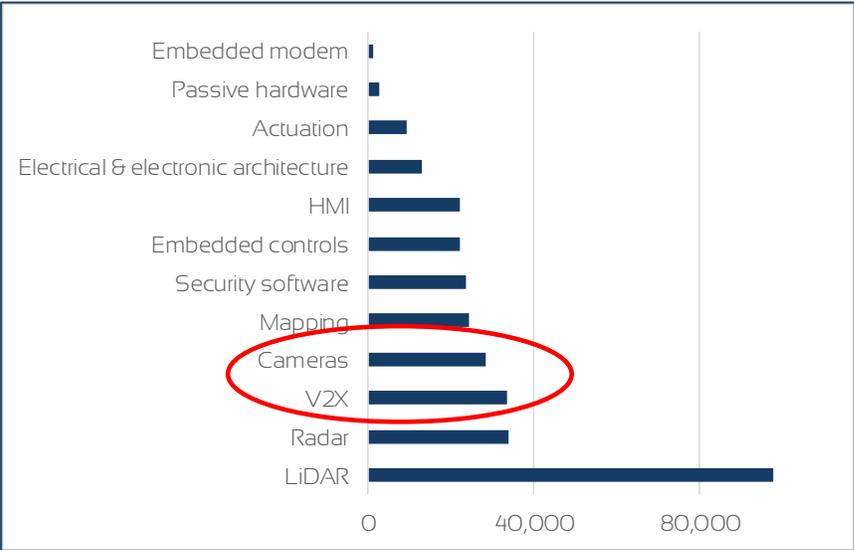
Vehicle-to-everything communication (V2X) modules required in every autonomous car

Fully autonomous vehicles will need to constantly communicate with other cars, road infrastructure, pedestrians, the Internet etc. This communication is called V2X and includes all these forms of communication, including transmission of video and data. We believe ELS already has the building blocks in place to play a role in this fast-growing segment of the autonomous vehicle segment.

V2X is expected to be one of the largest component segments within the autonomous vehicle segment (Figure 5) as every autonomous car will need these communications capabilities on-board. The V2X component segment is expected to grow to more than USD 33BN by 2050 from near-zero currently.

In addition to V2X, we also see scope for ELS to have its technology included in cameras for autonomous vehicles, i.e. directly integrated into the cameras. The camera segment is another very substantial segment within the overall market for autonomous vehicle components.

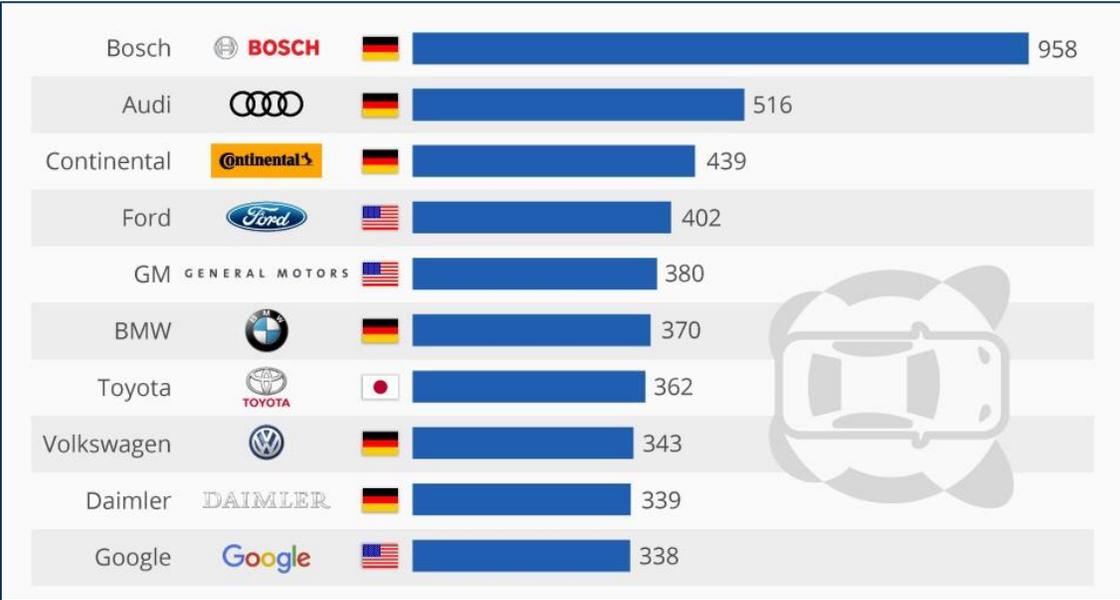
FIGURE 5: AUTONOMOUS VEHICLE COMPONENTS MARKET 2050 (IN USD M)



Source: TMT Analytics, Statista

ELS could potentially address both market segments by working with existing component suppliers to the automotive industry as well as with car manufacturers directly (Figure 6).

FIGURE 6: NUMBER OF WORLDWIDE PATENT FILINGS (2010-2017) RELATED TO AUTONOMOUS DRIVING



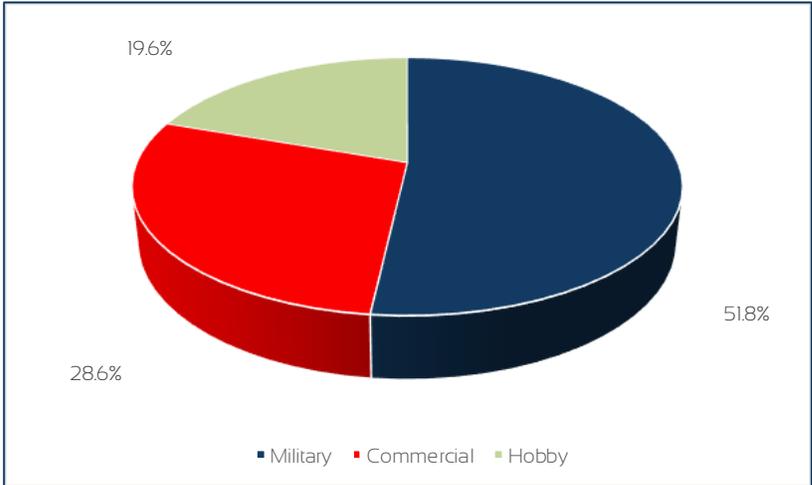
Source: Cologne Institute for Economic Research, WIPO

2. Military budgets for Unmanned Aerial Vehicles growing by 13% per year

Another high-potential market for ELS is the drone and Unmanned Aerial Vehicles (UAV) market. Technically speaking, a drone is a machine, such as a plane, submersible or car, that can be piloted remotely, which makes UAV's a subsegment of the drone market.

Frost & Sullivan estimate that by 2020 Military UAV's will account for more than 50% of global revenues, with Commercial UAV's, e.g. for delivery, surveying etc., accounting for nearly 30% of global revenues (Figure 7).

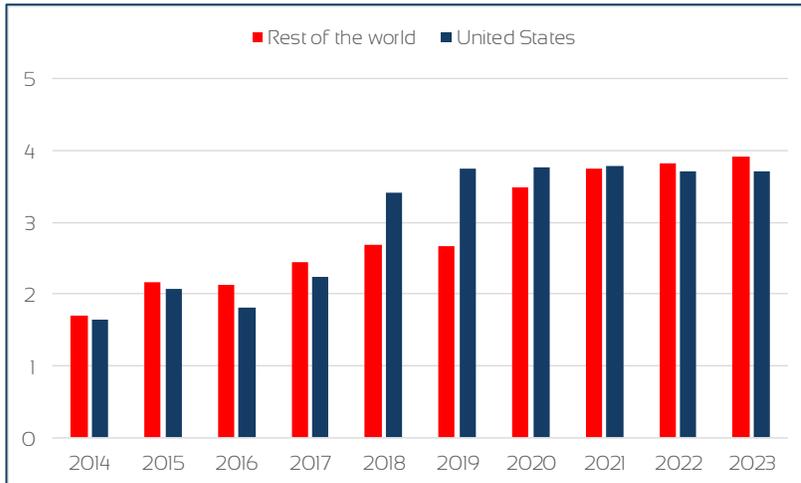
FIGURE 7: GLOBAL UAV MARKET BREAK DOWN BY 2020



Source: TMT Analytics, Frost & Sullivan

The largest segment, Military UAV's, is projected to grow by nearly 13% CAGR from 2017 through 2021, according to Teal Group. The United States have the largest budget for UAV procurement of any individual country by far (Figure 8), making this a key market for ELS, in our view. By 2021 the Rest of the World combined is projected to spend an amount similar to the US on its own, also implying strong growth in projected budgets in the next four years.

FIGURE 8: ESTIMATED PROCUREMENT BUDGETS MILITARY UAV (US\$ BN)



Source: TMT Analytics, Teal Group

3. Home Land Security & Defense are ELS natural target markets

The traditional private and corporate Security markets include many different products and services, such as cameras, monitors, alarm response services etc. for private, corporate and government venues. Home Land Security (HLS) adds venues such as airports, border crossings, sea ports and public transport to the list of addressable market segments.

Breaking the video surveillance equipment market out of the overall spending on global Security indicates an expected total revenue value of approximately US\$ 16.2BN in 2017.

Because this market segment is large and mature, it has only been growing by mid-single digits in the last five years. However, given that ELS technology is highly complementary to the existing product offering in this sector, i.e. ELS technology adds a reliability and security layer to the current offering in the market, we believe there is ample room for ELS to grow in this market segment.

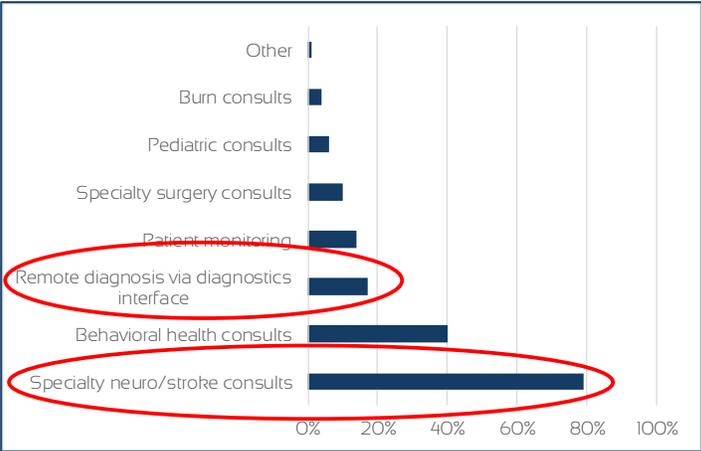
In addition to Military UAV's (see vertical 2), we believe the global Defense industry in general also presents a major revenue opportunity for ELS. For instance, we believe military facility monitoring, military vehicles, military personnel in the field etc. are all highly relevant target segments for ELS. While no granular spending or budget data is publicly available for these segments by country, we expect ELS' products are highly relevant for the military in the US, Israel and Australia, ELS key target markets.

4. Secure and uninterrupted video transmission crucial for Telemedicine

Technological advancements continue to expand the application areas of remote medical care, i.e. monitoring, diagnosing and consulting with patients by medical personnel in a different location, also known as Telemedicine. Examples include patients in rural Australia and the US, patients in mountainous France who are snowed in for most of the winter and military personnel on the battlefield. We believe today's main applications of Telemedicine (Figure 9), including

remote diagnosis and consulting, would highly benefit from the functionality of ELS’ products, reliability of connections in particular.

FIGURE 9: MAIN APPLICATIONS OF TELEMEDICINE IN US (2016)



Source: TMT Analytics, Health Leaders Media

Mordor Intelligence estimates that the global Telemedicine market will grow from around US\$ 23.2BN in 2017 to US\$ 67BN by 2021, which implies a CAGR of 18.8% in this period.

In order to address this fast-growing Telemedicine market, ELS is partnering with Alrena, a French developer of emergency medical solutions. ELS and Alrena have developed SmartMedicase (Figure 10), which is a remote first-aid medical suitcase that can connect emergency responders and nurses in remote locations to ER doctors in case of incidents, such as natural disasters, accidents or terrorist attacks. Through ELS’ technology, Alrena can guarantee secure and reliable video connections between hospital staff and remote medical staff.

FIGURE 10: ALRENA’S SMARTMEDICASE



Source: Alrena Technologies

The partnership with Alrena is anticipated to generate a minimum of EUR 6M in revenues for ELS in the first three years. Going forward we expect ELS will be in a position to close similar partnership arrangements with other Medical Devices companies. This should enable the company to capture part of this fast-growing Telemedicine market.

With an estimated 40,000 to 50,000 ambulances in the United States alone, we believe this market has huge potential for ELS.

5. Live Broadcasting and sporting events

The global broadcast equipment market is expected to grow by mid-single digits (~5%) from 2017 through 2023 and is expected to amount to nearly US\$ 6BN by then, according to MarketsAndMarkets. Reliable, uninterrupted transmission of ultra high definition (UHD, 4K) content is one of the main drivers of growth in this segment.

While growth in this mature market is moderate, we expect ELS will be able to carve out an attractive niche, similar to the video surveillance equipment market, based on the company's complementary technology.

6. Transportation & Logistics

ELS sixth target vertical consists of video transmission applications for the Transportation and Logistics markets, for instance armored vehicles for money transports, delivery trucks and vans as well as trucks used for transportation of valuable cargo, such electronics, jewelry etc.

In the US alone, there are 1.2M trucking companies operating more than 15M trucks. Additionally, nearly 200,000 new cargo trucks are sold in the US annually. In our view, this installed base and new unit sales in the US present a very attractive market segment for ELS, i.e. to equip a part of this installed base and new trucks with video transmission equipment to monitor transport and delivery of valuable cargos.

Competitors typically lack full redundancy or satellite fallback

While real-time video transmissions are not new to the verticals ELS is addressing, the functionality of ELS' products is.

The key selling point for ELS' products is the multichannel transmission capability with satellite fallback, which other providers, such as LiveU, typically lack. While single channel transmission may be fine for certain non-essential applications areas, we believe multichannel transmission is becoming essential for high-end applications, such as Security, Military and broadcasting applications. LiveU competes with ELS in the Broadcasting, Drones and Security verticals.

Other competitors, such as Israel-based Beeper Group do provide multichannel transmissions, however they lack a satellite fallback option. Beeper mostly competes with ELS within the Security & Defense vertical.

AIM-listed Servision Plc (AIM:SEV) is another Israeli company active in ELS' markets. SEV generated US\$ 2.1M in revenues in 2016, which was flat compared to 2015 and down ~50% compared to 2014 due to disappointing results in China and product delays. SEV is a competitor for ELS in the Transportation vertical with single channel products.

ELS focusing on specific geographies per vertical

ELS key markets include the United States, Israel and Australia. However, in this day and age, we believe the company’s product range is highly relevant for private and government organizations regardless of geography. Consequently, in addition to its key markets, we expect the company will be able to address many other geographies as well, depending on relevance and size of the addressable market (Figure 11).

FIGURE 11: ELS’ TARGET MARKETS PER INDUSTRY VERTICAL

	Autonomous Vehicles	Security & Defense	Drones & UAV's	Medical	Broadcasting	Transportation & Logistics
USA, Australia, Israel	Green	Green	Green	Green	Green	Green
Europe	Green	Green	Orange	Green	Green	Green
Asia	Orange	Green	Orange	Green	Orange	Orange
Africa	Red	Orange	Red	Green	Red	Red
South America	Red	Green	Red	Green	Red	Red

Source: TMT Analytics

Wide range of application areas to provide diversified customer base

As will be apparent from ELS target verticals, the company is addressing a wide range of application areas. Consequently, the company’s customers and prospects are highly diversified and include the Military, Special Forces, police departments, fire departments, medical emergency services, logistics and transportation companies, border patrol, broadcasting companies and service providers as well as car manufacturers and automotive Original Equipment Manufacturers (OEM’s).

Major contract win with Israeli Ministry of Public Security

As an illustration of the broad application areas of the company’s product range, ELS recently won a four-year (2+2) tender with the Israeli Ministry of Public Security. This includes the Israeli Police, Fire and Rescue services as well as Prison Services. ELS has the exclusive right to provide Communication On-The-Move (COTM) to these departments in an open-ended contract, i.e. not capped at a certain amount. This means these departments can purchase ELS products and services as needed and based on departments’ own budgets.

Total Addressable Market in excess of US\$ 100M

Under this contract ELS will be providing various departments with Multichannel COTM solutions for police cars, fire engines, prison transports, UAV's, autonomous security vehicles etc. **on an exclusive basis.**

Based on the number of locations per department (police stations, prisons etc) and the average number of vehicles per location, we believe this contract presents a revenue opportunity of more than US\$ 100M to ELS as illustrated in Figure 12.

FIGURE 12: ELS' REVENUE OPPORTUNITY FROM CONTRACT WITH ISRAELI MINISTRY OF PUBLIC SECURITY

	Avg. # of cars per location	Total # cars	Average Selling Price US\$ (excl. monthly recurring revenues)	Revenue opportunity (US\$)	
# Police stations	67	25	1,675	15,000	25,125,000
# Prisons	22	12	264	15,000	3,960,000
# Fire stations	375	10	3,750	30,000	112,500,000
	Total number of cars	5,689	Total addressable market		141,585,000

Source: TMT Analytics, Elsight

Sales strategy mainly based on third-party vendor partnerships

Most of ELS customers and prospects procure equipment and services through existing supplier relationships, especially larger prospects and customers. Therefore, the company’s go-to-market strategy is predominantly based on partnerships with third-party service providers, such as system integrators, resellers, OEM’s and vertical-specific incumbents.

And while ELS will continue to generate revenues, e.g. from Israeli Ministry of Public Security, through its direct sales force, we anticipate revenues generated through channel partners will likely account for more than 80% of revenues longer term.

Hikvision deal has potential to become really big, really fast

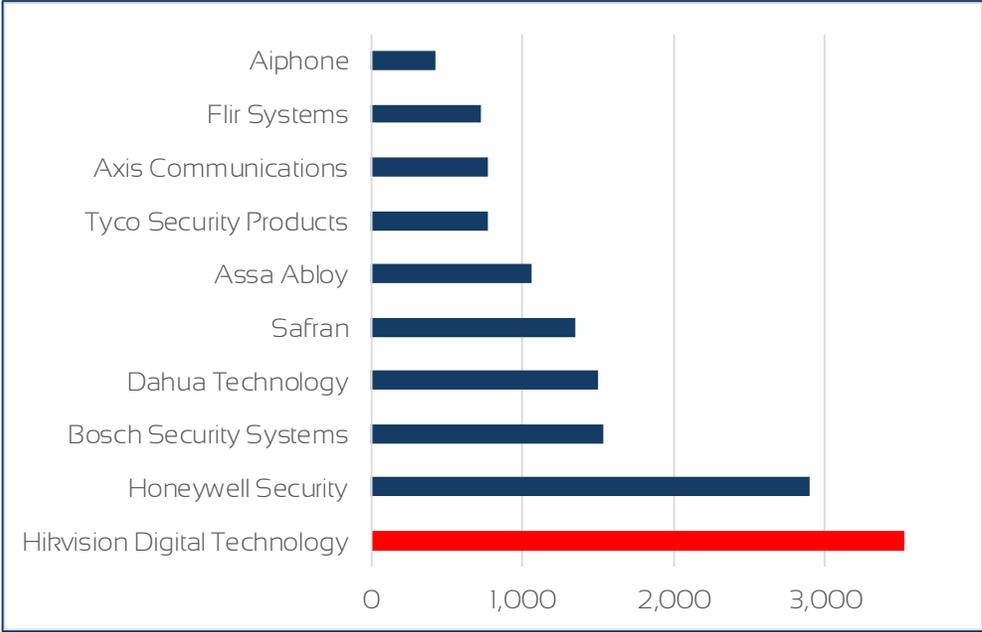
A good example of such partnerships is ELS’ recently announced a strategic alliance with Hikvision, the world’s largest manufacturer of video surveillance products (Figure 13). Hikvision is expected to generate more than US\$ 6.2BN in revenues in 2017 from cameras (network, infrared, thermal etc), DVR’s, encoders, transmission equipment and accessories for mobile and stationary applications.

Approximately 70% of Hikvision’s revenues are generated in China, which provides ELS with a very strong inroad into the vast Chinese market.

Integrating ELS’ products and software into its own product offering will enable Hikvision to substantially expand the functionality and application areas of its products.

We expect the Hikvision alliance will be highly beneficial to ELS in the areas of marketing, sales, technical support and business development.

FIGURE 13: LEADING SECURITY EQUIPMENT MANUFACTURERS (BY REVENUE 2015, US\$ BN)



Source: TMT Analytics, a & s Magazine

The potential of the Hikvision alliance on the back of an envelope

In order to quantify ELS' revenue potential from the Hikvision alliance, we have made a back of an envelope calculation, which clearly illustrates the revenue upside to ELS.

Roughly 48% of Hikvision's revenues in 2016 were generated by front end equipment, i.e. cameras. With an estimated overall revenue for Hikvision of US\$ 6.2BN in 2017 (source: S&P CapitalIQ), this puts Hikvision's camera revenues at approximately US\$ 2.96BN in 2017.

We further assume that about 10% of Hikvision's camera revenues are generated from high end cameras, i.e. in excess of US\$ 1,500 RRP. We believe only these more expensive camera systems would warrant additional equipment, such as ELS' products, given the added expense.

Assuming an average selling price (ASP) of high-end surveillance cameras to end users of US\$ 2,000 and a 50% mark up by Hikvision's resellers, IT integrators and other distributors, would put Hikvision's average wholesale selling price of high-end cameras to channel partners at approximately US\$ 1,333 per unit. In turn, this implies Hikvision will sell more than 220,000 high end video surveillance cameras globally in 2017. Similar exercises for 2018 and 2019 indicate Hikvision's sales of high end cameras will amount to more than 280,000 and 360,000 respectively in both years.

What if...?

If Hikvision were to add ELS' equipment and functionality to just 1% of its high-end camera system sales in 2018 and 2019 at an average one-off selling price to ELS of US\$ 1,000, this would result in an additional US\$ 2.9M and US\$ 3.6M in revenues to ELS in 2018 and 2019 respectively.

The key variables here are percentage of Hikvision cameras equipped with ELS products and ELS' ASP for the solutions it sells to Hikvision. Figure 14 provides a sensitivity analysis around these variables and the revenue potential for ELS following from the alliance with Hikvision.

FIGURE 14: REVENUE POTENTIAL FROM HIKVISION DEAL IN 2018 (US\$)

% of Hikvision cams equipped with ELS products	ELS' Average Selling Price to Hikvision (US\$)			
	500	1,000	1,500	2,000
0.5%	715,500	1,431,000	2,146,500	2,862,000
1.0%	1,431,000	2,862,000	4,293,000	5,724,000
1.5%	2,146,500	4,293,000	6,439,500	8,586,000
2.0%	2,862,000	5,724,000	8,586,000	11,448,000
2.5%	3,577,500	7,155,000	10,732,500	14,310,000
3.0%	4,293,000	8,586,000	12,879,000	17,172,000

Source: TMT Analytics

While calculations like these are in part based on assumptions, which by default can be highly fluid, we do believe that this exercise illustrates how large the potential revenue upside for ELS can be if Hikvision flexes its muscles and deploys ELS' solutions at scale.

In addition to Hikvision and earlier-mentioned Alrena, we expect ELS will seek partnerships in many countries and across verticals. These partnerships will likely take the form of straightforward supplier relationships with ELS selling into these partners, rather than ELS and its partners jointly marketing products.

Revenue model based on six verticals

Our revenue model for ELS is based on the six verticals the company is addressing, unit sales per vertical with revenues generated from one-off product sales (Figure 15).

Additionally, we have factored in monthly recurring revenues from connectivity services (e.g. cellular, satellite) as well as support services and updates for five out of the six verticals.

The exception is Autonomous Vehicles where we expect ELS will offer one-off product sales, most likely through OEM's and potentially directly to car manufacturers.

FIGURE 15: REVENUE MODEL PER VERTICAL (US\$)

	FY17E	FY18E	FY19E	FY20E	FY21E	FY22E	FY23E	FY24E
Autonomous vehicles	-	0.1	0.1	0.2	3.8	10.0	18.8	25.0
Security & Defense	0.2	0.9	2.2	3.8	8.2	12.8	15.5	19.2
Drones & UAV	0.3	0.9	1.5	3.2	5.3	6.9	8.4	10.1
Telemedicine	0.3	1.2	2.8	6.5	8.1	14.3	17.5	21.6
Broadcasting	0.2	0.8	1.2	3.1	4.6	6.2	7.6	9.4
Transportation & Logistics	0.1	0.7	1.2	1.8	2.5	3.9	6.9	10.1
Total revenues	1.1	4.6	9.0	18.7	32.5	54.1	74.7	95.3
Total non-recurring revenues	0.3	2.0	3.7	7.6	13.5	24.1	36.2	44.0
Total recurring revenues	0.7	2.6	5.3	11.1	19.0	30.0	38.5	51.3

Source: TMT Analytics

Key assumptions in our revenue model:

- The company intends to spin out each vertical into an independent business unit and to hire experienced industry executives for each of the verticals to lead the growth efforts, justifying the big jump in the revenue growth from 2019 and beyond.
- Unit growth is based on respective market sizes and anticipated growth of each vertical as illustrated earlier in the market description per vertical. The Autonomous Vehicles vertical is expected to start ramping up from 2021.
- Hardware units and kits come in different sets ups, configurations and with different components, depending on the application areas.
- Recurring monthly revenues per unit are largely dependent on the required number of transmission channels. City buses typically only require one channel versus Military-type drones that require up to four channels.
- Due to the typical product cycles in electronics, where miniaturization and price declines go hand in hand with each new product iteration, we have assumed 15% across-the-board price declines every two years starting in 2019.

Further to the above, unit shipments to Israeli police, fire, prison and emergency response departments under the contract with the Israeli Ministry of Public Security have actually already started in 2HY17.

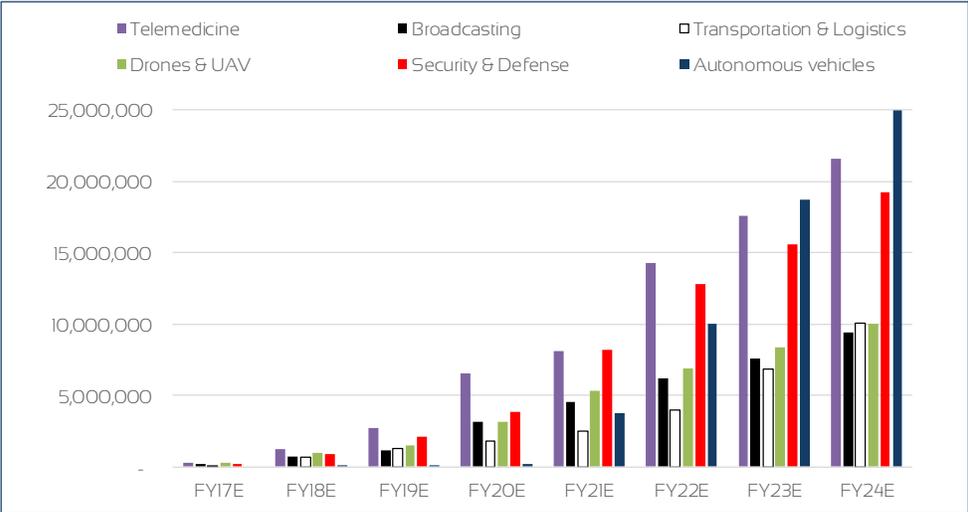
The recently announced Alrena contract includes minimum revenues to ELS of EUR 6M (-A\$ 9M) in the next three years, which has been included under Telemedicine.

ELS' Broadcasting products are currently already being sold, while we expect the Transportation & Logistics vertical to start ramping up sales in FY18.

Autonomous Vehicles to be the largest vertical longer term

While revenues in the Autonomous Vehicle vertical are not expected to be material until 2021, we anticipate this vertical will become ELS’ largest revenue generator over time due to the vast opportunity for ELS’ technology, i.e. module sales, in this market segment (Figure 16).

FIGURE 16: REVENUE BREAKDOWN BY VERTICAL THROUGH 2024 (US\$)

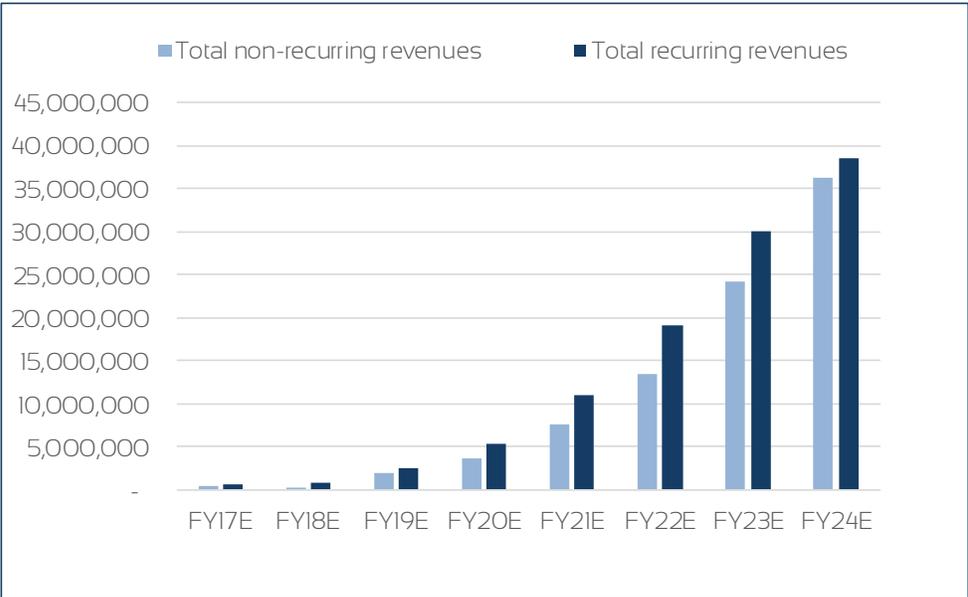


Source: TMT Analytics

Recurring revenues to be the main contributor to the top line

Based on our modelling we anticipate that monthly recurring revenues will be the main contributor to ELS top line (Figure 17), at least in the medium term. Longer term, i.e. from 2023, we expect one-off revenues from Autonomous Vehicle modules to start driving non-recurring revenues.

FIGURE 17: REVENUE BREAKDOWN INTO RECURRING AND NON-RECURRING REVENUES



Source: TMT Analytics

Strong revenue growth substantiated by existing contracts

We have summarized our projections for ELS in Figure 18. We realize that ELS projected growth rate may seem very aggressive. However, this strong growth is based on existing contracts, e.g. with Hikvision, the Israeli Ministry of Public Security and Alrena, which we expect will be complemented with additional channel partnerships in the near to medium term.

In other words, we believe our projections are well-founded by ELS' commercial traction to-date and the flow on effects of this early commercial success in discussions with other, potential channel partners.

FIGURE 18: SUMMARY OF ELS' PROFIT & LOSS ACCOUNT

<i>US\$ M</i>	2016A	FY17E	FY18E	FY19E	FY20E	FY21E
Revenues	0.945	1.1	4.6	9.0	18.7	32.5
EBITDA	0.2	-0.8	1.6	4.1	10.6	19.4
EBITDA margins	21%	-71%	34%	46%	57%	60%
NPAT	0.1	-2.0	1.2	3.2	8.1	14.9
EPS fully diluted (c)	0.001	-0.024	0.01	0.04	0.10	0.18

Source: TMT Analytics

The financial impact of ELS' Initial Public Offering and the associated one-off costs are reflected in our EBITDA and Net Profit After Tax projections for FY17.

Beyond 2017 we anticipate strong revenue growth coupled with strong EBITDA margins. The latter are driven by the combination of non-recurring system sales and high-margin, recurring revenues from subscriptions, license fees and services. We anticipate EBITDA margins approaching 60% longer term.

DCF valuation suggests substantial longer-term upside

The theoretical Weighted Average Cost of Capital (WACC) for ELS amounts to 11.1%. Using an 11.1% WACC, our Discounted Cash Flow model suggests a fair value for ELS of A\$ 3.67. However, we believe this WACC underestimates the investment risks associated with investing in early-stage companies. Additionally, the fact that ELS has only recently started to monetize multiple verticals also needs to be reflected in the discount rate. Consequently, we believe a WACC clearly higher than 11.1% is required to give a fair reflection of ELS' risks at this point in time.

At this stage, we believe a WACC of 14% is more appropriate for ELS, which indicates a fair value of A\$ 2.60 per share. As the company grows and thus confirms its vast market opportunity, there will be room to lower the WACC in our model, and hence increase our valuation for ELS.

We have included a range of WACC's and associated fair values for ELS in Figure 19 to enable readers to pick their own required rate of return for ELS.

FIGURE 19: DCF VALUATION (A\$) USING VARYING WACC'S

8%	5.70
9%	4.88
10%	4.24
11.1%	3.67
12%	3.25
13%	2.90
14%	2.60
15%	2.35
16%	2.13
17%	1.94
18%	1.77
19%	1.62
20%	1.49

Source: TMT Analytics

Conclusion: Buy rating and a price target of A\$ 2.60 per share

ELS is addressing multiple, large industry verticals with products and solutions that have a distinctive edge compared to other real-time video transmission products, specifically superior reliability and security of transmissions.

We believe ELS' existing high-value contracts and partnerships are testament to the company's competitive edge in this market and substantiate our financial projections.

Execution will be key to further upside in our price target

Based on our current estimates our 12-month price target for ELS of A\$ 2.60 per share is derived from our DCF-based fair value per share using a 14% WACC.

However, the company's various addressable market verticals are very substantial in size and the company may be able to capture a substantially larger share of its target markets than we have currently modelled. This will become apparent over the next 12 to 24 months.

Strong execution of its sales strategy and the potential to (substantially) exceed our current projections will therefore be key share price catalysts in the near to medium term, in our view.

We start our research coverage of ELS with a BUY recommendation and an initial price target of A\$ 2.60 per share.

Other near-term share price catalysts / Key Performance Indicators

- Commencement of revenue generation from the recent tender win with Israeli Ministry of Public Security.
- New contract/tender wins with government and corporate customers.
- Additional significant channel partner announcements, similar to Hikvision and Alrena.

SWOT Analysis

Strengths

- ELS' proprietary technology is field-proven and currently being deployed into a range of different industry verticals, including Telemedicine, Security, Logistics and Broadcasting.
- Multichannel encrypted transmission is not currently the industry standard for video and data transmission, which gives ELS a unique market position.
- The company is gaining early traction with Israeli government agencies, which generates revenues and showcases the technology to prospective customers.
- The alliance with Hikvision provides ELS with global distribution and inroads into the vast Chinese market as well as Hikvision's network partners.
- The addressable, IoT-type, application areas for ELS' technology are seemingly infinite.

Weaknesses

- ELS' technology is not patented. While it may take third parties substantial time and money to replicate ELS' technology, it is not unlikely that similar product offerings will emerge.
- Compared to partners such as Hikvision, ELS is a relatively small player, which may result in suboptimal outcomes when negotiating business arrangements.
- The company's cash position per the end of the third quarter 2017 (September quarter) of US\$ 1.9M implies ELS will likely need to raise additional capital, diluting existing shareholders.

Opportunities

- The Autonomous Vehicles vertical is likely to present a very substantial revenue opportunity for ELS given the technology requirements and growth projections for this market in the next ten years.
- Multichannel encrypted transmission technology has many more application areas beyond ELS current six target verticals, which the company may address at some point in the future.
- Partnerships similar to, or even larger in potential than, Hikvision could provide ELS with vastly greater distribution power.
- Government and corporate budgets for (Homeland) Security are likely to be further increased going forward given existing terrorist threat levels.

Threats

- Well-capitalized industry incumbents may decide to develop proprietary multichannel encrypted transmission technology and compete with ELS head-on, which would substantially inhibit ELS' growth.
- Theft of ELS' Intellectual Property (IP), i.e. the company's proprietary algorithms, would be very detrimental to the company's commercial prospects.

Appendices

Board of Directors

Major General (retired) Ami Shafran (Non-Executive Chairman): Major General Shafran is the former Head of the Israeli Defence Force Information and Communications Technology Command. In addition, he is currently the Head of the Centre for Cyber Technology at Ariel University in Israel. Over the course of his career Major General Shafran held numerous prestigious and prominent positions in the Defence and Intelligence forces of the Israeli Defence Force, including serving as its Chief Scientist, serving as Chief of Staff of the Ministry of Defence, and the Research and Development Attaché at the Israeli Embassy in Washington DC. He has not served as a Director on any other ASX listed company.

Nir Gabay (Managing Director): Mr. Gabay is the founder and CEO of El-Sight. Commencing his career in the Israeli military, he has more than 20 years' experience in communications, security and surveillance including a mobile cellular provider, local municipality, and high-tech companies, and was previously a member of an Israeli Special Forces unit. During the past ten years Mr. Gabay has been involved in a number of technological and business achievements, among which the establishment of El-Sight Israel, which was founded based on his communications and security experiences. He has not previously been a director of any other ASX listed companies.)

David Furstenberg (Non-Executive Director): Mr. Furstenberg has held various senior CEO, Chairman, Board member and VP Global sales positions in a number of publicly traded and privately-owned companies, including: Comverse (NASDAQ: CNSI) and Audiocodes (NASDAQ: AUDC), Enure and Vista (a subsidiary of Israel Aerospace Industries). Most recently, Mr. Furstenberg was the active Chairman at NovelSat and the CEO at InsurBit, as well as a Director of White Cyber Knight Ltd and Insurix Inc., all companies involved in cyber and security businesses in some form. Mr. Furstenberg has built a specialty in assisting with the turnaround of high tech companies through product and market repositioning (as opposed to reduction in force). He has not previously served as a director of any ASX listed company.

Anton Uvarov (Non-Executive Director): Mr. Uvarov has significant experience as an equity analyst both in Australia and overseas. Prior to moving to Australia, he was with Citigroup Global Markets, where he spent several years as a member of the New York based Healthcare team. Mr. Uvarov's technical expertise and company knowledge spreads across a variety of industries and spectrum of market capitalizations, with his particular interest in early stage startups. Mr. Uvarov holds a PhD degree from the University of Manitoba, Canada and an MBA degree from the University of Calgary, Canada. Mr. Uvarov is currently an Executive Director of Neuroscientific Biopharmaceuticals and Director of Renaissance Equities, an investment firm with the focus on technology companies based in Israel and North America.

Howard Digby (Non-Executive Director): Mr. Digby began his career at IBM and has spent 25 years managing technology related businesses in the Asia Pacific region, of which 12 years in Hong Kong. More recently, he was with The Economist Group as Regional Managing Director. Prior to this, he held senior regional management roles at Adobe and Gartner. Upon returning to Perth, Mr. Digby served as Executive Editor of WA Business News and now spends his time as an advisor and investor, having played key roles in several M&A and reverse takeover transactions. Mr. Digby is a non-executive Director of 4DS Memory Limited (ASX:4DS) and is an advisor to several private startup technology businesses. He holds a Bachelor of Engineering (Mechanical) Honours from the University of Western Australia.

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