Equity Research

January 8, 2020

BSE Sensex: 40869

ICICI Securities Limited is the author and distributor of this report

Initiating coverage

Autos

Target price Rs555

Shareholding pattern

	Mar '19	Jun '19	Sep '19
Promoters	85.0	85.0	85.0
Institutional investors	12.5	12.2	12.6
MFs and others	5.1	6.6	5.8
FI/Banks	0.0	0.0	0.2
FIIs	7.4	5.6	6.6
Others	2.5	2.8	2.4

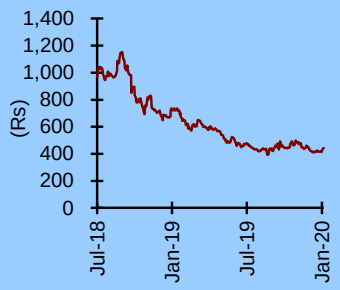
Source: NSE

I-Sec vs Bbg* consensus

(%)	FY20E	FY21E	FY22E
Sales	(3)	(4)	(3)
EBITDA	(6)	(6)	(4)
PAT	(22)	(18)	(8)

Source: *Bloomberg, I-Sec research

Price chart



INDIA

Varroc Engineering

BUY

Headlamps dimmed, but path visible

Rs443

"Don't worry about looking good – worry about achieving your goals." – Ray Dalio

We initiate coverage on Varroc Engineering (VEL) with a BUY rating and a target price of Rs555, valuing the company on SoTP basis. Our analysis of VEL's business indicates: (a) lighting business (VLS) remains well dominated by global peers with capability (capital being one of the factor for success); (b) FY21 and FY22 are likely to be inflexion points for VEL as new customers' programs ramp up (global/BS-VI) while operating costs stabilise; c) incremental LED penetration opportunity is highest amongst US OEMs; and d) BS-VI opportunity has potential to boost revenues by ~4-5%. VEL's profitability is expected to improve (at ~7% CAGR FY19-FY22E) driven by normalisation of VLS profitability as its new plants stabilise. However, we believe VLS would require sustained investments in R&D and capacity if it strives to gain market share, which could inhibit peak RoCE. Nevertheless, we find the current FCF yield attractive at ~5% on FY21E.

- **Global VLS market share gains call for sustained capital deployment:** The global lighting business has high concentration (~75-80% market share) amongst the top-5 players. Market shares are well entrenched across the common regional OEMs. VLS's larger global peers spend significant capital annually on R&D/capex: European peers spend ~9-11% / ~7% of sales while the Asian peers spend ~4-5% / ~7-8% on R&D / capex respectively. VEL increased its investments across R&D/Capex to ~4.5%/9.2% in FY19; we believe sustainable FCF generation along with continued investment intensity is the key business challenge for VEL.
- **LED opportunity – Not all customers are equal:** We deep-dived into the incremental penetration potential of LED adoption across 110 car models covering eight global OEMs (many of which are existing customers of VLS). The analysis suggests incremental LED penetration opportunity amongst VLS's key customers remains highest in FCA (only ~20% LED penetration) while customers like Tesla are already at 100% penetration. Other new customers, e.g. Renault Nissan and PSA, are at ~50% and 90% penetration respectively.
- **BS-VI ramp-up in India and new plant stabilisation in VLS are key triggers:** VEL's India business is likely to witness revenue boost post BS-VI adoption with incremental addition of ~Rs0.5bn in FY21E. This is likely to improve asset utilisations and margins. New facility investments for VLS are likely to increase revenues by ~EUR130mn/280mn in FY22E/FY23E respectively. Currently, these facilities are in the red owing to low utilisations and full burden of fixed costs.
- **Initiate with BUY:** We like VEL's business model and current valuations. Due to material global and domestic automotive exposures, we feel its valuation should be on SoTP basis. We find the current FCF yield attractive at ~5%/11% FY21/22E respectively. We value VLS and its China JV at 5.0x EV/EBITDA / 9x P/E FY22E (discount to global peers) and India business at 7.5x EV/EBITDA FY22E (premium to domestic peers) to arrive at a target price of Rs555. Initiate with a **BUY** rating.

Market Cap	Rs59.7bn/US$832mn
Reuters/Bloomberg	VARE.BO/VARROC IN
Shares Outstanding (mn)	134.8
52-week Range (Rs)	737/394
Free Float (%)	15.0
FII (%)	6.6
Daily Volume (US$/'000)	371
Absolute Return 3m (%)	(0.2)
Absolute Return 12m (%)	(38.8)
Sensex Return 3m (%)	9.0
Sensex Return 12m (%)	15.3

Year to Mar	FY19	FY20E	FY21E	FY22E
Revenue (Rs bn)	1,20,365	1,15,603	1,24,799	1,40,875
Rec. Net Income (Rs bn)	4,463	2,487	3,612	5,426
EPS (Rs)	33.1	18.4	26.8	40.2
% Chg YoY	(0.9)	(44.3)	45.2	50.2
P/E (x)	13.6	24.4	16.8	11.2
CEPS (Rs)	75.1	67.4	79.8	96.6
EV/E (x) (Incl. Indus)	7.3	8.2	6.8	5.4
Dividend Yield (%)	0.1	0.6	0.9	1.3
RoCE (%)	12.9	7.6	9.1	12.0
RoE (%)	15.1	7.8	10.5	14.1

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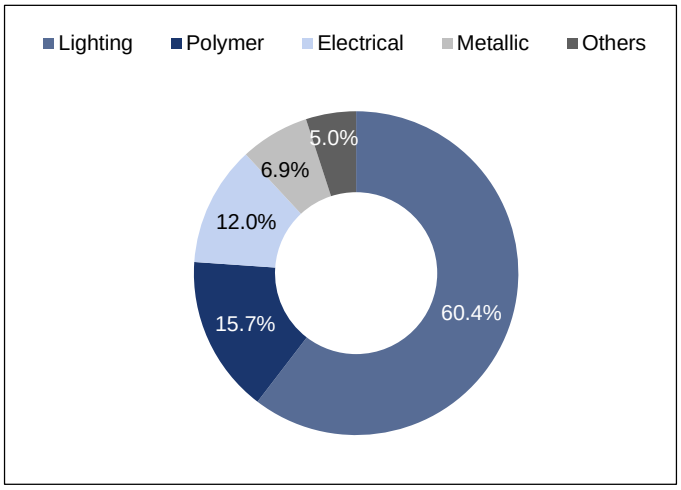
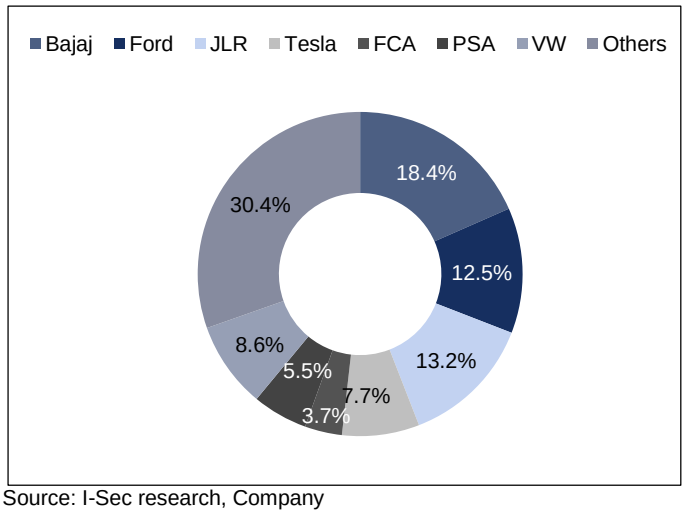
Story in charts

Chart 1: Portfolio diversification across components



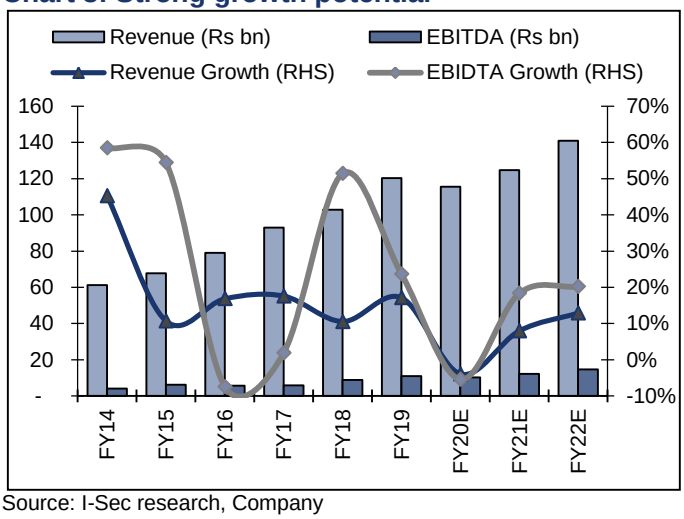
Source: I-Sec research, Company

Chart 2: Consolidated revenue split by customer



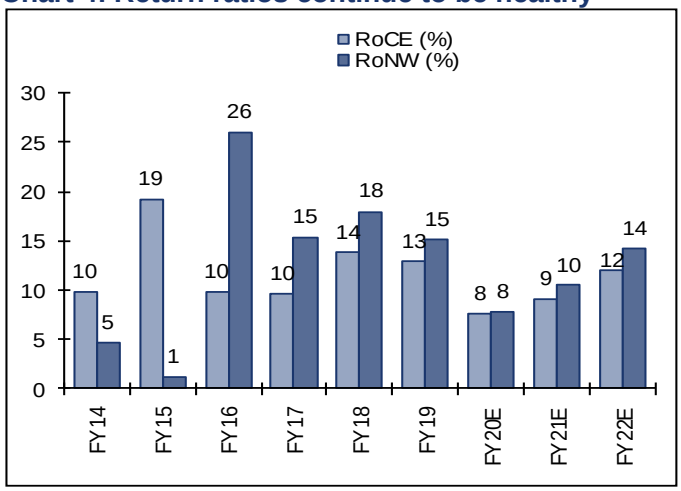
Source: I-Sec research, Company

Chart 3: Strong growth potential



Source: I-Sec research, Company

Chart 4: Return ratios continue to be healthy



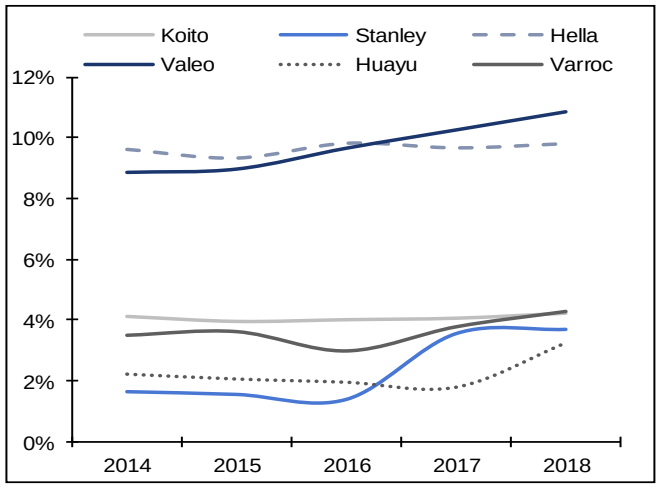
Source: I-Sec research, Company

Chart 5: LED penetration in top-selling models

OEM	Model Sample size	LED availability in base model	LED/ADB availability across models
VW	19	78%	78%
PSA	13	90%	90%
FCA	12	21%	29%
Renault-Nissan	18	50%	72%
Ford	12	25%	75%
Tesla	3	100%	100%
GM	8	62%	87%
Toyota	18	100%	100%
Honda	14	36%	79%
Total	**117**	**72%**	**89%**

Source: Bloomberg,I-Sec research, Company

Chart 6: R&D spends – Peer comparison



Source: Bloomberg, I-Sec research, Company

TABLE OF CONTENTS

VEL's business 4
VEL – At a glance 5
Product Segments 6
VLS lighting opportunity 7
Major growth contributing factors 7
1. Penetration of light emitting diodes (LEDs) 7
2. Comprehensive product portfolio – increased content per car 8
3. Design differentiation and safety benefits of LEDs 10
Comparative analysis of global lighting peers 11
Capex and R&D – A key requirement of the industry 12
Global footprint 13
Progress in greenfield facilities 15
Case study: Global model analysis for LED/AFS penetration 18
Industry overview 21
BSVI – Opportunity for the future 24
The road ahead 25
Financials in charts 26
Valuation and recommendation 28
Key personnel and corporate governance 30
Key risks and concerns 31
Annexure 1: Consolidated financials 32
Annexure 2: Index of tables and charts 35

VEL's business

Varroc Engineering (VEL) is a global tier-1 automotive component group. It designs, manufactures and supplies exterior lighting systems, plastic and polymer components, electrical-electronic components and precision metallic components to passenger car, commercial vehicle, 2-wheeler, 3-wheeler and off-highway vehicle (OHV) OEMs directly worldwide. VEL is the second-largest Indian auto component group (by consolidated revenue for FY17) and a leading tier-1 manufacturer and supplier to Indian 2-wheeler and 3-wheeler OEMs (by consolidated revenue for FY17) (*Source: CRISIL Research*). VEL is the sixth-largest global exterior automotive lighting manufacturer and one of the top three independent exterior lighting players (by market share in 2016).

The Varroc story – Key highlights

- **Global peer comparison**

  Varroc Engineering (VEL) faces competition from established global players like Koito, Stanley, Hella, Magneti Marelli among others. In terms of operating metrics, Varroc's R&D spend is comparable to its peers with Valeo leading the pack. D&A expense of Varroc is the least among peers at ~25% for 2019. As VEL is in expansion phase with capex in Europe and the Americas, it has one of the highest capex-to-sales ratios among its peers.

- **Opportunity in increased LED penetration**

  Our case study on the LED usage in top selling models across major OEMs illustrates the rising penetration of LEDs. LED penetration is expected to cross 60% in FY20. VEL currently has presence in VW, FCA and PSA which offer LED lamps as a standard, however, it has limited presence in Asia which is dominated by Koito and Stanley.

- **BS-VI – emerging opportunity in India**

  Varroc is exploring the opportunity in supply of catalytic converters and Electronic Fuel Injection (EFI) systems to its existing customers in order to increase the content per customer. Company has recently received from TVS an order for supply of 720,000 units of magneto annually, generating revenue of Rs0.45bn.

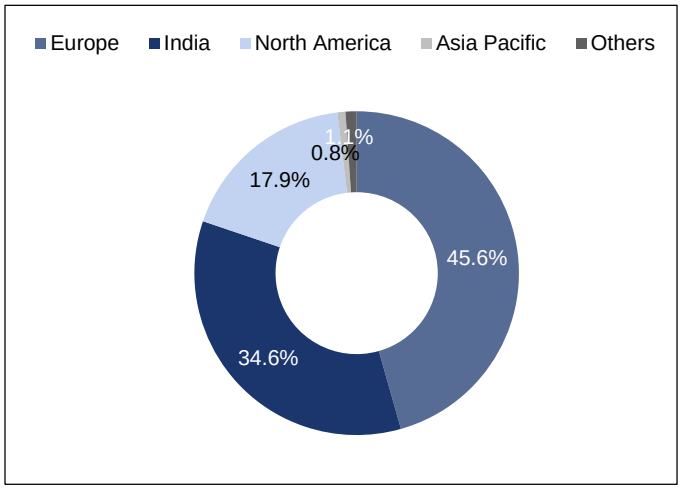
Table 1: Valuation summary

Business	FY22	Multiple	Current market value	Rs/Share	Valuation Remarks
VLS (ex-China)	8,550	5.0	42,749	317	EV/EBITDA; ~10% discount to global peers
India	6,590	7.5	49,427	367	EV/EBITDA; ~10% premium to domestic peers
Net debt			-18,236	-135	
Equity Value			73,941	548	
China JV	100	9.0	897	7	PE multiple; ~10% discount to regional peers
Total Value			**74,838**	**555**	Implied Target PE Multiple : ~14

VEL – At a glance

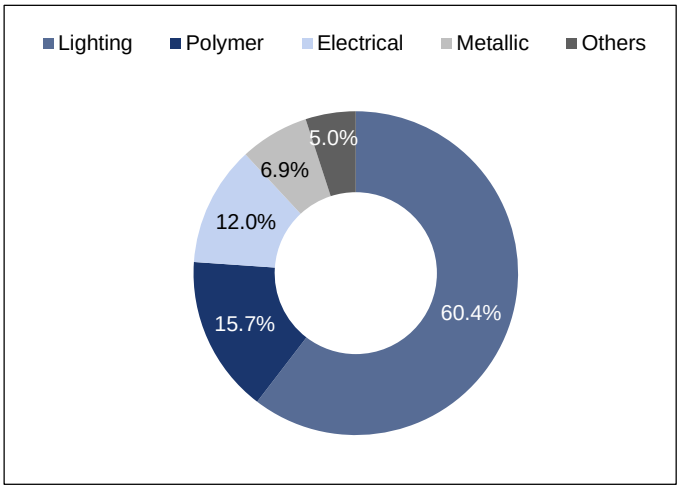
VEL is a global tier-1 (tier-1 companies are companies that directly supply to original equipment manufacturers, or OEMs). The automotive component group designs, manufactures and supplies exterior lighting systems, plastic and polymer components, electrical-electronic components and precision metallic components to passenger car, commercial vehicle, 2-wheeler, 3-wheeler and off-highway vehicle (OHV) OEMs directly worldwide. It is the second-largest Indian auto component group (by consolidated revenue for FY19) and a leading tier-1 manufacturer and supplier to Indian 2-wheeler and 3-wheeler OEMs (by consolidated revenue for FY19). VEL is the sixth-largest global exterior automotive lighting manufacturer and one of the top three independent exterior lighting players.

Chart 7: Revenue split by region



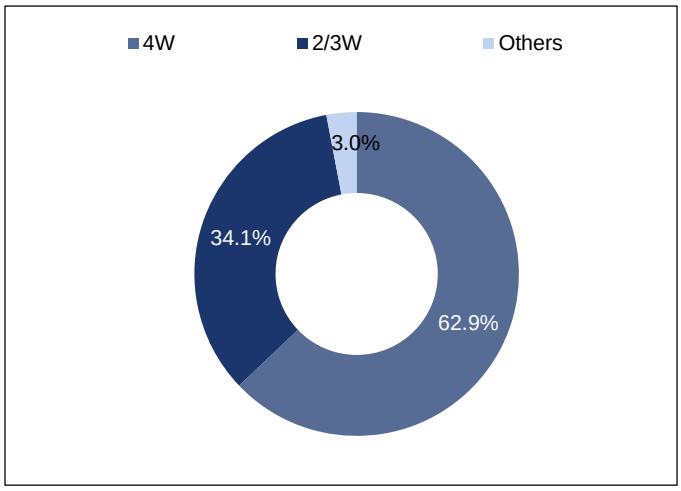
Source: I-Sec research, Company data

Chart 8: Revenue split by segments



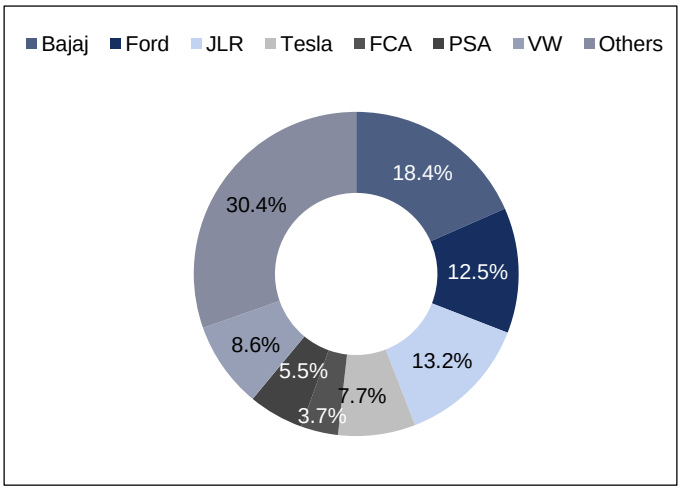
Source: I-Sec research, Company data

Chart 9: Revenue split by end-use



Source: I-Sec research, Company data

Chart 10: Consolidated revenue split by customer



Source: I-Sec research, Company data

The company has end-to-end capabilities across design, R&D, engineering, testing, manufacturing and supply of various products across business. The two primary business lines, namely (i) design, manufacture and supply of exterior lighting systems to passenger car OEMs worldwide ('Global Lighting Business' referred to as VLS), and (ii) the design, manufacture and supply of a wide range of auto components in India,

primarily to 2-wheeler and 3-wheeler OEMs, including exports. The India business offers a diversified set of products across three product lines, namely polymers/plastics, electricals/electronics and metallic components. In addition, other smaller businesses, which include design, manufacture and supply of 2-wheeler lighting to global OEMs and under carriage forged machine components for OHVs and drill bits for the oil and gas sector ('Other Businesses').

Product Segments

Product segment	Metallic business	Polymer business	Electric and electronics business	Lighting business
Revenue Mix	6.9%	15.7%	12%	60.4%
Description	Manufacturer of precision engine forged and machined parts for engines and transmissions to domestic and international markets	One of the largest manufacturers of plastic components and mirror assembly for major auto-OEMs	One of the largest polymer solution providers to all major auto OEMs with pan-India presence	Leading global supplier of high-end automotive lighting systems for PV
Product Portfolio	• Engine parts • Engine Valves • Transmission gears • CV Crankshaft • Connecting Rods • Links and rollers	• Air filter Assembly • Seating Assembly • Plastic interiors Exteriors • Painted plastic products • Mirror Assembly • CV seats	• Digital instrument clusters • Motors, Magnetos • CDI, regulator rectifiers • Body Switches • Catalytic Converters • Handle bar assembly	• Head Lamps • Rear Lamps • Small lighting (CHMSL, Fog) • Lighting electronics (ECU, LDM, Software Development)
Segments	2W, 3W, PV, CV, & OHV, Earth-moving & Oil-drilling	2W, 3W, PV & CV	2W, 3W, PV & CV	PV
Manufacturing facilities	7 manufacturing facilities – 5 in India and 2 in Italy	15 manufacturing facilities in India	11 manufacturing facilities: 8 in India, one each in Italy, Romania, Vietnam and one upcoming facility in India	10 manufacturing facilities: two each in Czech, China, Turkey and one each in Mexico, India, Brazil and Morocco
Employee strength	1600+	1600+	1500+	8000+
Key customers	Ashok Leyland, Bajaj, Caterpillar, Ducati, Eicher Motors, Fiat, General Motors, Harley Davidson, Hero, Honda, Isuzu, JCB, KTM, M&M, Maruti Suzuki, Tata, Piaggio, Yamaha	Ashok Leyland, Bajaj, DICV, Eicher, Fiat, General Motors, Hero, Harley Davidson, Honda, KTM, M&M, Royal Enfield, Suzuki, Tata, Volvo, Triumph, VW	Atul Auto, Bajaj, Honda, Piaggio, Royal Enfield, Suzuki, Tata, VW, Yamaha	Audi, Bentley, CFMA, Changan, Daimler, DPCA, FCA, Ford, General Motors, Jaguar LandRover, JMC, M&M, PSA, Renault/Nissan, Tata, Tesla, VW

Source: I-Sec research, DRHP, Company

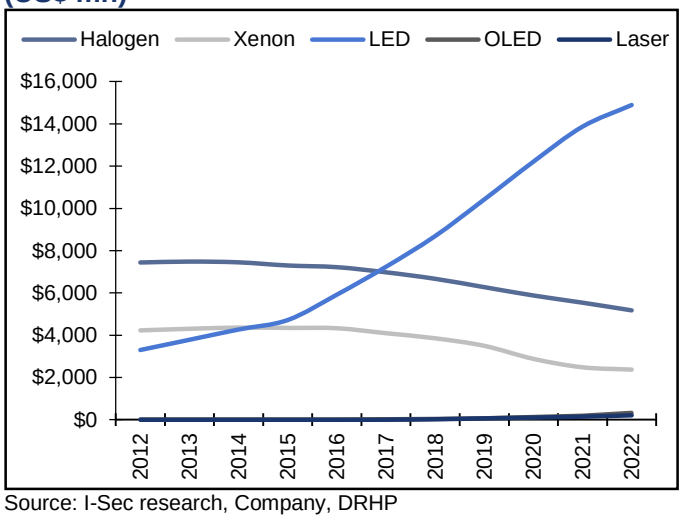
VLS lighting opportunity

Major growth contributing factors

1. Penetration of light emitting diodes (LEDs)

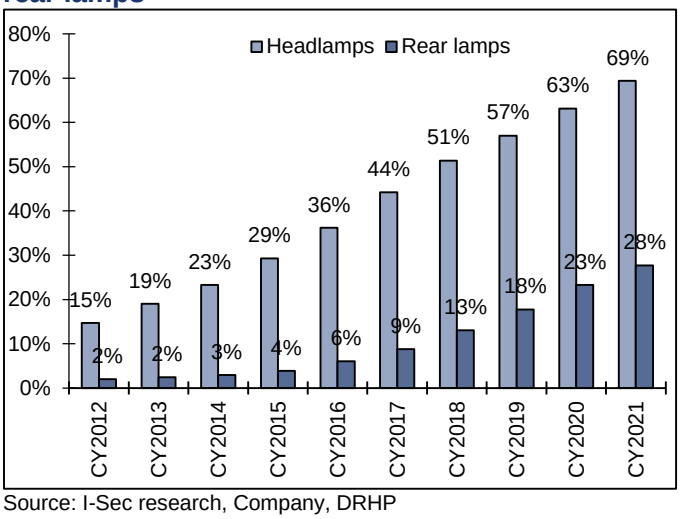
Penetration rate is expected to increase due to better performance and lower cost compared to other types of lighting solutions and with economies of scale, LED lighting innovation is available not simply for top of the line vehicles, but also for mid-level and low-end vehicles. The significant costs of LED innovation and relatively low performance of LED technology vis-à-vis other lighting technologies resulted in low penetration of under 1% for LEDs in headlights and under 10% in backlights. The penetration pace of LEDs is substantially more critical. This is particularly the situation for rear lamps where it is simpler to implement LEDs because of the lower cost of LEDs utilised for such applications. Such development for headlamp frameworks is additionally expected because of a standardisation of segments in LED headlamps and a superior learning of LED innovation driving to a significant cost decline.

Chart 11: Market size of lighting technologies (US$ mn)



Source: I-Sec research, Company, DRHP

Chart 12: Penetration of LEDs in headlamps and rear lamps



Source: I-Sec research, Company, DRHP

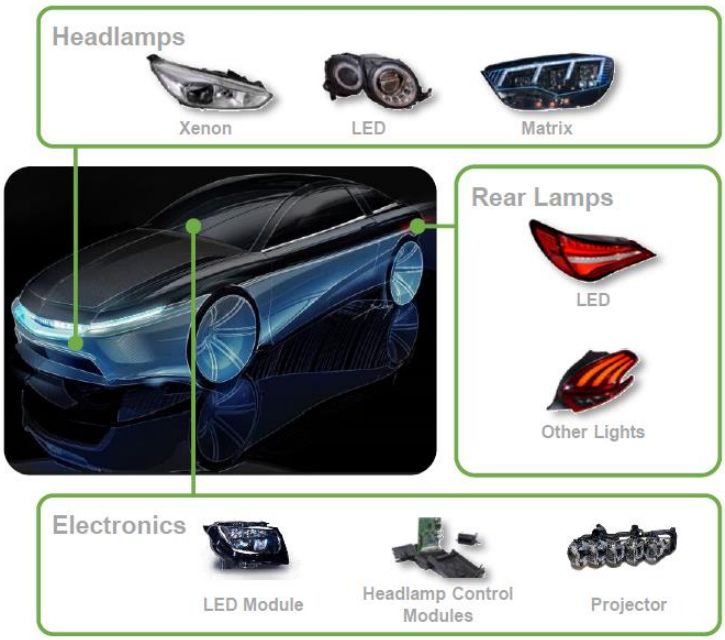
As per DRHP, ~70% of the orderbook for FY20-FY21 is for LEDs. LEDs contribute ~50% to revenues of VLS, while halogen contributes 40% and the remaining 10% includes ADB (mainly for JLR and Ford in Europe). As per company, LED contribution is expected to reach ~60% in FY22 following the ramp-up of the Brazil and Morocco facilities.

2. Comprehensive product portfolio – increased content per car

The new styling possibilities and usage of new capacities have led to an increase in the lighting content of vehicles since 2005 and is probably going to pursue a similar pattern until 2020. Lighting content of vehicles was lower in 2005 because of the low entrance pace of LED in the extraordinary applications given at that time, the vast majority of applications were utilising incandescent lamp sources and the cost of LEDs was too high to be included in automotive lighting. Following the diminished expense of LED gadgets, the entrance pace of LED innovation has expanded, and likewise the benefit of lighting content per vehicle has additionally increased. Since then, the utilisation of incandescent lamp sources has diminished quickly. LEDs can bring strong value for styling and usage of new functionalities (e.g. versatile driving shaft, correspondence, security).

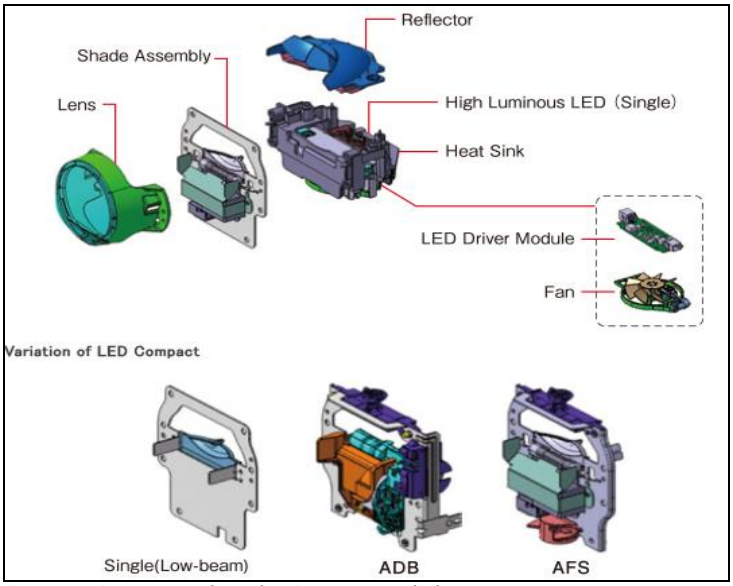
VEL provides a one-stop shop for its customers with five automotive product lines. Its product portfolio is powertrain-agnostic and is capable of being used across all fuel types. Its India business caters to 2-wheelers, 3-wheelers, passenger vehicles, commercial vehicles, and off-highway vehicles across segments of polymer/plastics, electrical-electronics and precision metallic components. VEL has a unique advantage in product portfolio with significant presence and customer relationship across 16 product segments and the ability to cross-sell more products per segment per customer. Of these 16 categories, VEL is a supplier to all the categories for Bajaj Auto. For Eicher Motors, Yamaha and Honda Motorcycles, the company supplies products for seven, nine and seven categories, respectively. Apart from the 16 categories of products that are already being supplied, VEL has developed magneto, EFI system for BS-VI transition and Euro 7 valves, which will be supplied from FY22 onwards.

Chart 13: Portfolio of lighting technologies for PV OEMs



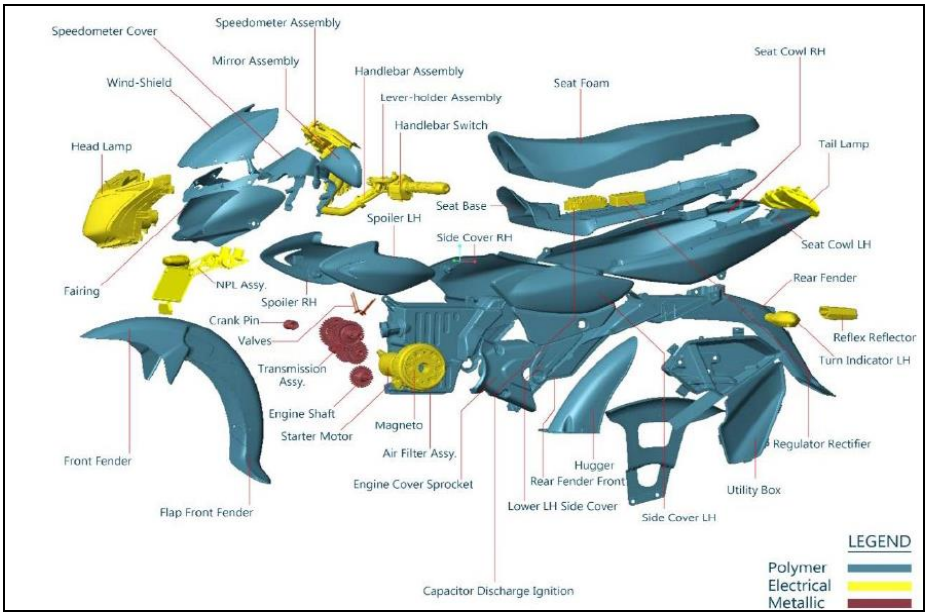
Source: I-Sec research, Company presentation

Chart 14: Structure of LED module



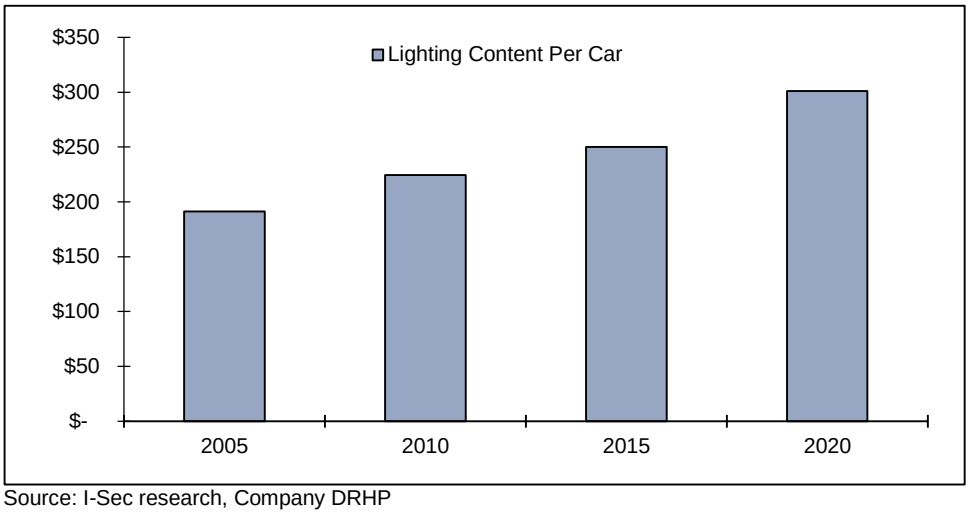
Source: I-Sec research, Koito Company website

Chart 15: Portfolio of 2W solutions for OEMs in India



Source: I-Sec research, Company presentation

Chart 16: Penetration of LEDs in headlamps and rear lamps



Source: I-Sec research, Company DRHP

3. Design differentiation and safety benefits of LEDs

Design is one of the essential components of VEL, which separates its products from competition and lighting is a noticeable viewpoint in the structure and style of the product. Innovations like LEDs, which are small, can be utilised with various sorts of optics to make differentiation in daytime running lights for headlamps, rear lamps and help in better brand recall. OEMs are improving the productivity of their vehicles in novel manners to meet environmental guidelines. However, vehicle emissions and efficiency guidelines are getting stricter over the globe. In this strengthening regulatory condition, gradual (and cost effective) enhancements are progressively being tried to compensate for diminishing margins in other segments. Subsequently, LED lights are a developing segment for mass-market vehicles given their lower power utilisation. Inside the setting of 2025 targets (comparative with 2020 targets), utilising a LED/LED (headlamp/back light) arrangement rather than HID/LED could represent up to 2% of the commanded improvement in the US, 3.7% in the EU, and 2.6% in China. The switch from halogen to LED leads to a 2.5x increase in the pricing of the lamp and would assist the company to maintain the 15% margin target.

The company has also developed and patented surface LED and is supplying the same to JLR currently. The potential improvement is bigger in switching from a halogen/conventional to LED/LED framework. LED lights are progressively pertinent for OEMs in satisfying emission guidelines.

Table 2: Global emission standards

Country/ Region	Metric	Test Cycle	2015 Target	2020 Target	2025 Target
Japan	Fuel economy	WLTC	17km/L	20.3km/L	NA
US	Fuel economy/ GHG	FTP+ Highway	263g/mile	213g/mile	163g/mile
EU	CO_2	WLTC	130g/km	95g/km	68-78g/km
China	CO_2+ NEV credit	NEDC	6.9L/ 100km	5L/ 100km	4L/ 100km

Source: I-Sec research, Regulatory authorities

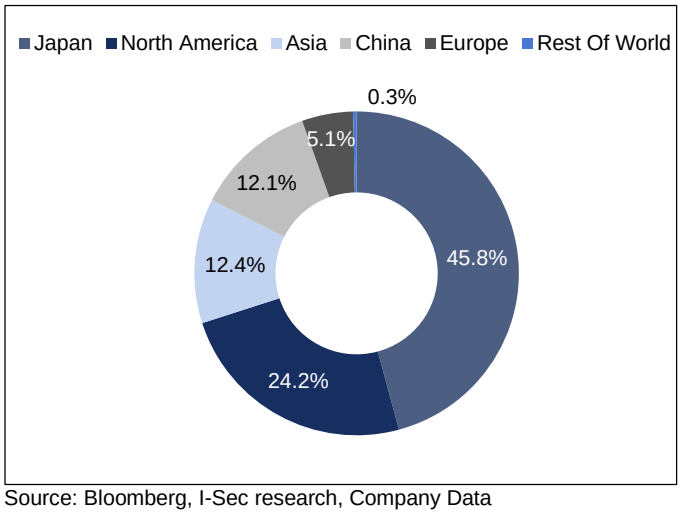
Table 3: Fuel consumption comparison of lighting systems

Headlamp/ rear lamp configuration	Fuel consumption (L/100km)	Improvement (L/100km)	CO2 emissions (g/km)	Improvement (g/km)
Halogen/ conventional	0.126	Baseline	2.97	Baseline
HID/LED	0.077	-0.049	1.82	-1.15
LED/LED	0.051	-0.075	1.2	-1.77

Source: I-Sec research, Hella Company data

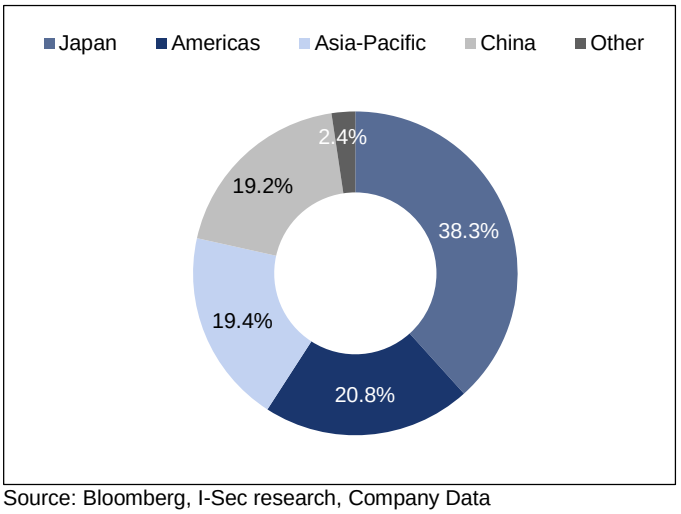
Comparative analysis of global lighting peers

Chart 17: Revenue share by region – Koito



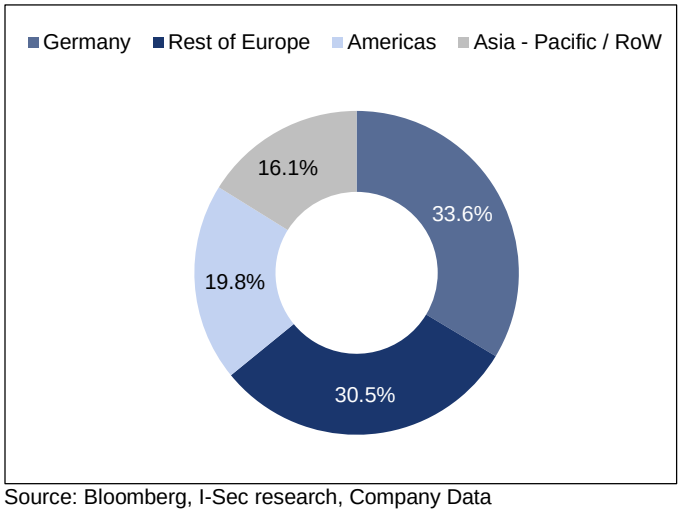
Source: Bloomberg, I-Sec research, Company Data

Chart 18: Revenue share by region – Stanley



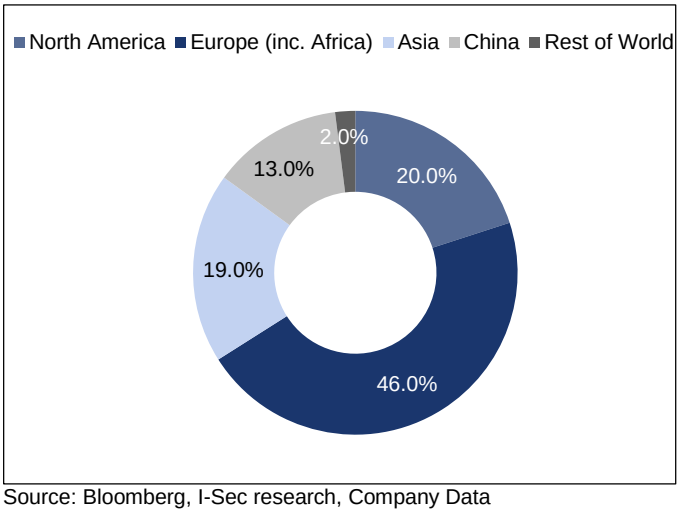
Source: Bloomberg, I-Sec research, Company Data

Chart 19: Revenue share by region – Hella



Source: Bloomberg, I-Sec research, Company Data

Chart 20: Revenue share by region – Valeo



Source: Bloomberg, I-Sec research, Company Data

Table 4: Lighting as a % of revenue for key players

	FY14	FY15	FY16	FY17	FY18	FY19
Koito	89%	90%	92%	93%	93%	92%
Stanley	74%	75%	77%	79%	81%	81%
Hella	42%	39%	33%	33%	34%	46%
Valeo	28%	28%	28%	32%	30%	30%
Varroc		64%	59%	64%	61%	55%

Source: Bloomberg, I-Sec research, Company data

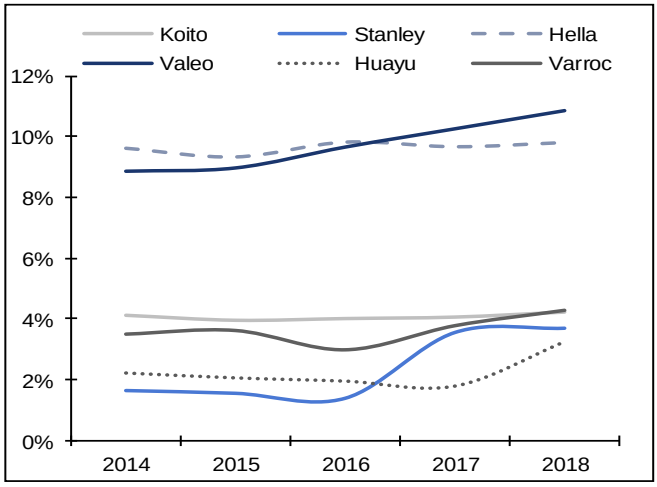
Table 5: Market share table of key players within sub-segments

Company	Market Share (2016)	Premium Vehicles
Koito	28%	16%
Magnetti Marelli	17%	25%
Valeo	13%	15%
Stanley	12%	6%
Hella	10%	18%
Varroc	4%	6%
Others	16%	14%

Source: Company DRHP, I-Sec research

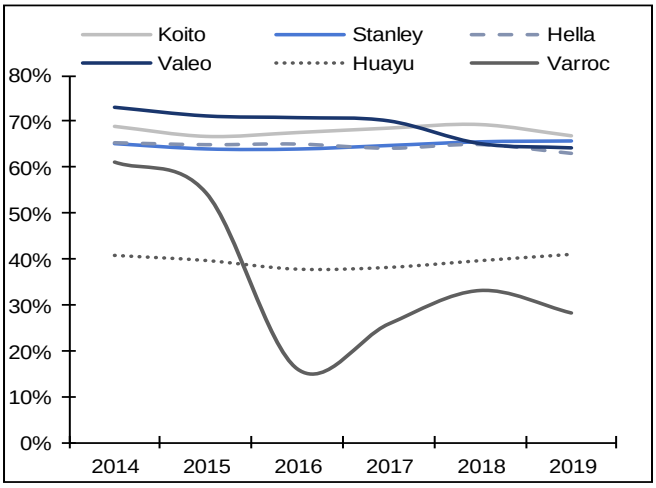
Capex and R&D – A key requirement of the industry

Chart 21: R&D spend across global peers



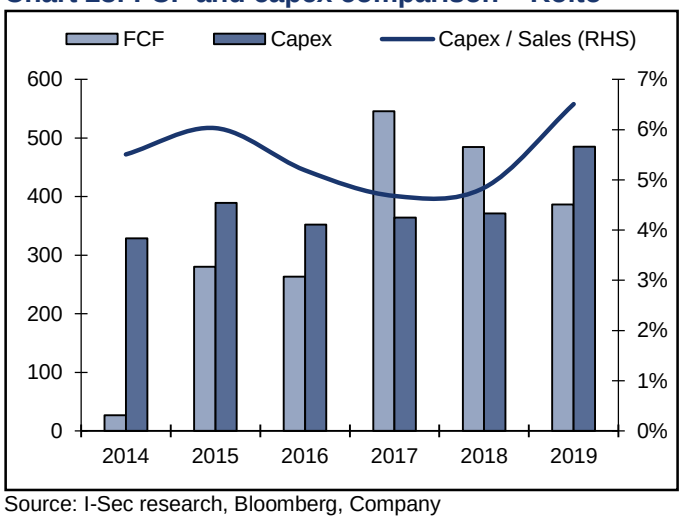
Source: I-Sec research, Bloomberg, Company

Chart 22: Accumulated D&A as percent of gross block



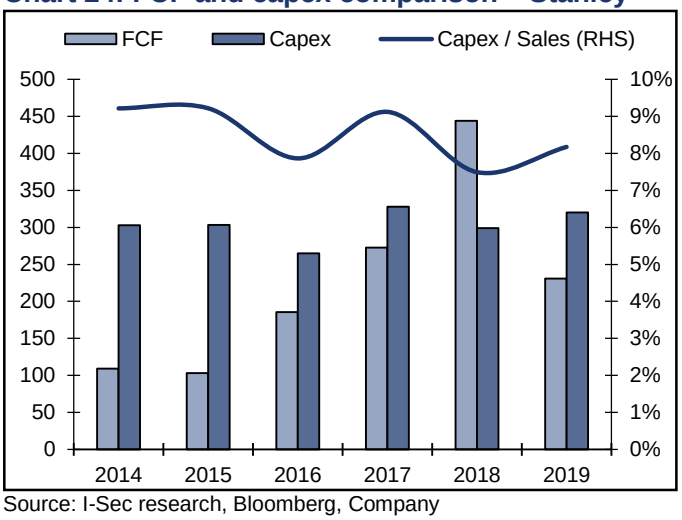
Source: I-Sec research, Bloomberg, Company

Chart 23: FCF and capex comparison – Koito



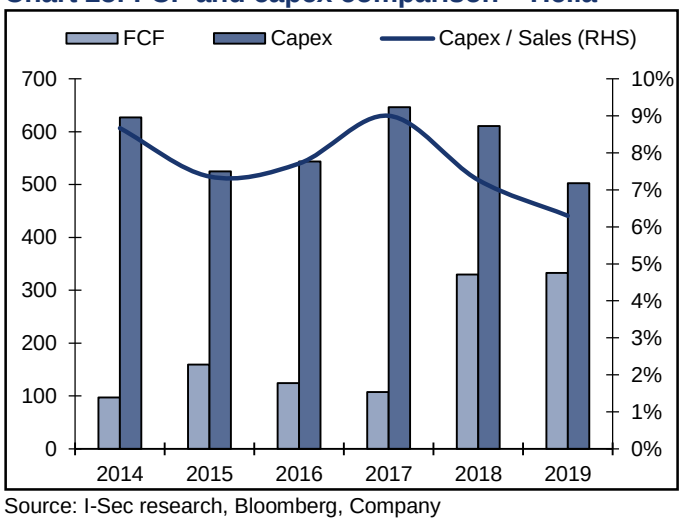
Source: I-Sec research, Bloomberg, Company

Chart 24: FCF and capex comparison – Stanley



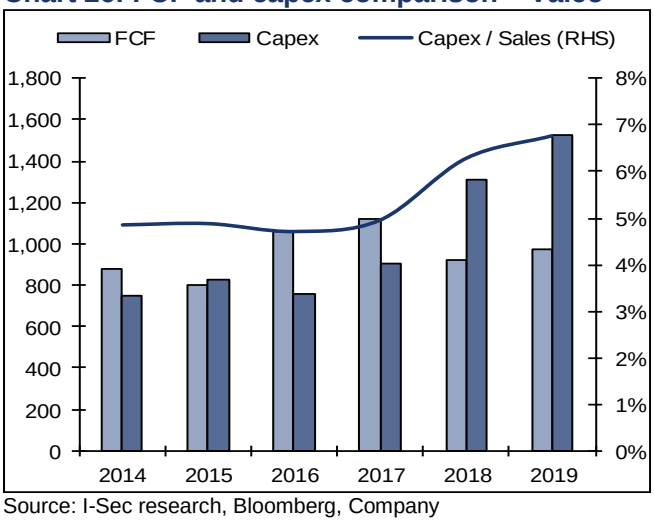
Source: I-Sec research, Bloomberg, Company

Chart 25: FCF and capex comparison – Hella



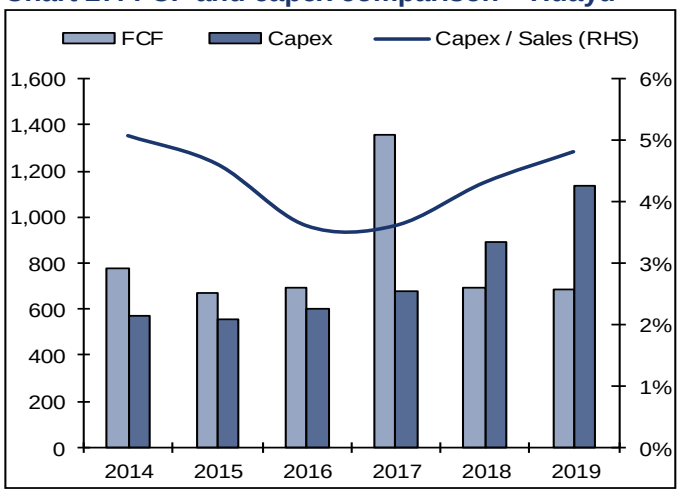
Source: I-Sec research, Bloomberg, Company

Chart 26: FCF and capex comparison – Valeo



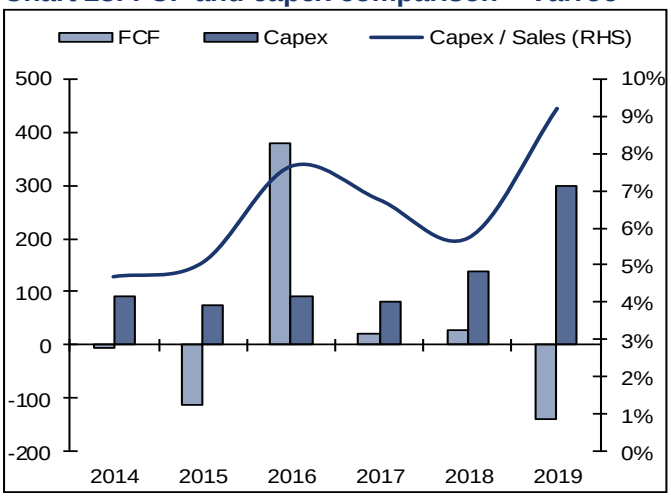
Source: I-Sec research, Bloomberg, Company

Chart 27: FCF and capex comparison – Huayu



Source: I-Sec research, Bloomberg, Company

Chart 28: FCF and capex comparison – Varroc



Source: I-Sec research, Bloomberg, Company

Global footprint

Table 6: Lighting manufacturing and R&D facilities of major players

	Koito	Stanley	Magneti Marelli	Hella	Valeo	Varroc
APAC						
China	▲■	▲	▲■	▲■	▲■	▲■
India	▲		▲	▲	▲	▲■
Korea					▲	
Japan	▲■	▲■				
Rest of Asia	▲■	▲	▲			
Americas						
US	▲■	▲	▲■	■	▲	
Mexico	▲	▲	▲	▲	▲	▲■
Brazil	▲	▲	▲		▲	▲
Argentina					▲	
Europe						
Germany			▲	▲■	▲■	■
Spain			▲		▲	
France			▲		▲■	■
Italy			▲■		▲	
Belgium					▲	
Poland			▲		▲	▲
Czech Republic	▲■		▲		▲	▲■
Turkey			▲		▲	▲
Slovakia				▲		
Romania					▲	
Morocco						▲
Hungary		▲				
Finland				▲		
UK	▲	▲				■

Source: I-Sec research, Company data; ▲ – Production facility; ■ – R&D facility

The strategic focus of the company is on the improvement of in-house R&D capacities in order to make sophisticated technological solutions in a cost-efficient way, and make it available to bigger mass markets. Innovation ability is fundamental for car segment producers to stay aggressive later on, particularly, with worldwide patterns regarding the limitations on emission volumes. The company's R&D facilities are located in low-cost countries (*refer Table 5*), which will be advantageous for the company with increasing content per vehicle. The R&D centres employ 1,500 engineers across Czech Republic, India, China, Mexico, Germany, the US and one recently started in Poland, of which 452 engineers are located in R&D centres in Pune

and Aurangabad, India. Varroc holds 187 patents and has filed 48 to various authorities as of December 31, 2017. The company has invested heavily in Matrix LED and laser headlamp system for its international clients.

VEL has a global footprint of 43 manufacturing facilities spread across seven countries, with eight facilities for global lighting business, 26 for India business and five for other businesses. Given its global presence, their revenue stream is diversified both geographically as well as across customers. The company has strategically invested in facilities in low-cost countries near major automotive markets giving it a cost advantage vis-à-vis competitors. Its latest facilities have started in Morocco and Brazil, which provide a low-cost base to service VW, FCA, and PSA, Ford, and Tesla, respectively.

The company has completed phase-2 capex (EUR30mn) for Mexico plant to reach a peak capacity revenue of EUR110mn with an additional requirement of EUR20mn to attain peak capacity of EUR180mn. The Brazil operations was planned in two phases. Phase 1 having a capacity of 30mn has already been commissioned; however, phase-2 capex has been postponed in light of the current slowdown in the North American automotive market. Morocco plant has a full capacity revenue of EUR15mn, but is likely to breakeven in Q2FY21 at EUR3mn per month output.

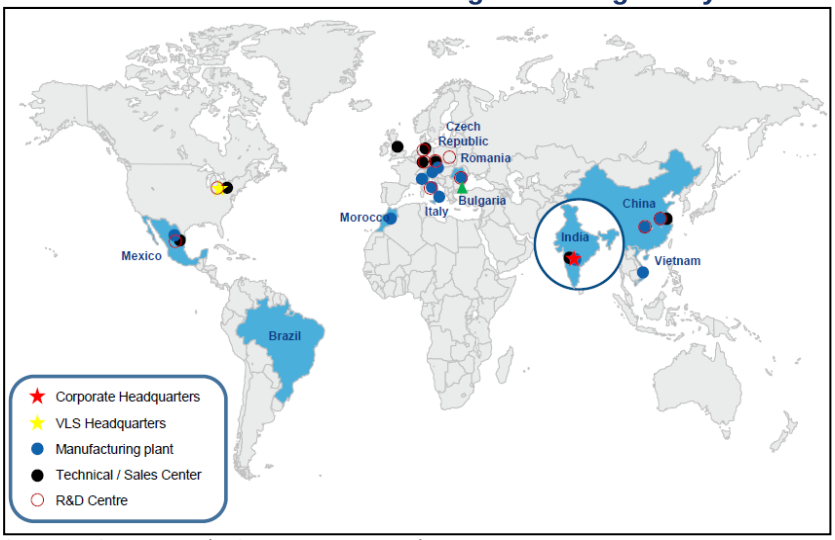
Table 7: Comparison of monthly wages

Country	Monthly wages (US$)
Czech Republic	1,688
Mexico	765
China	789
India	168
Poland	1,179
Morocco	258
Brazil	762
USA	5,238
Germany	3,922
Italy	3,445

Source: I-Sec research, Worlddata.info

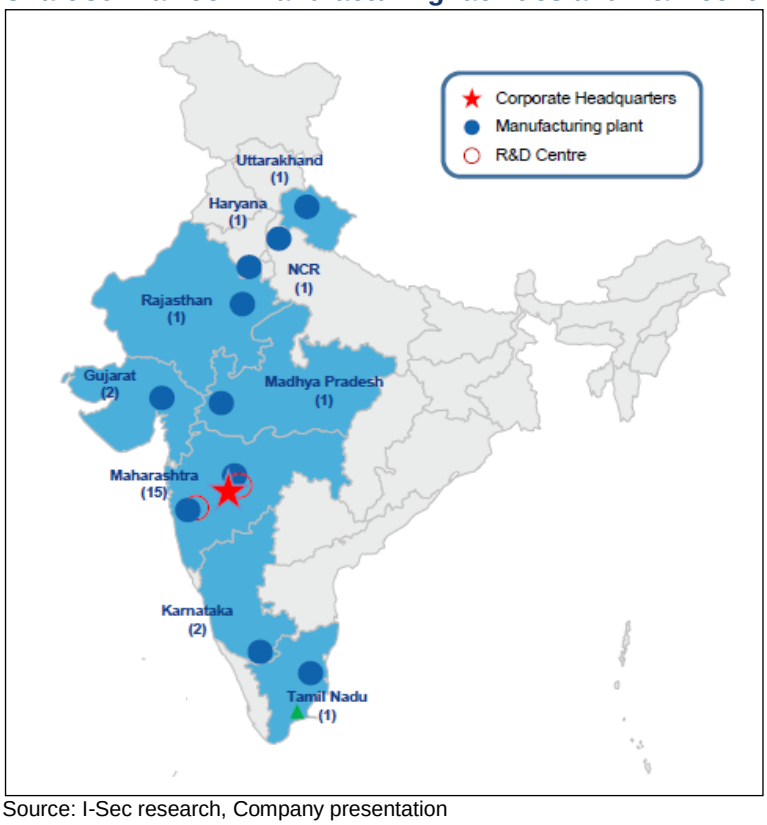
As per the above data compiled, the average monthly wage rate in the locations of VLS's manufacturing facilities are lower as compared to major markets of the US (US$5,238) or EU markets of Germany (US$3,922) and Italy (US$3,445).

Chart 29: Varroc – 15 manufacturing facilities globally



Source: I-Sec research, Company presentation

Chart 30: Varroc – Manufacturing facilities and R&D centres across India



Source: I-Sec research, Company presentation

Progress in greenfield facilities

Facility	Revenue Potential (US$ mn)	Full potential sales year	Target breakeven	Confirmed orders as a % of planned capacity (as of Oct'19)
Brazil	30	FY22	Q4FY21	100% sourced business
Morocco	180	FY23	Q2FY21	~70% sourced business
Poland	100	FY23	Q4FY21	~55% sourced business
Chennai	30	FY24	Q4FY21	~60% sourced business
VLS-ELBA JV*	85	FY24	Q3FY21	To reduce sourcing cost of electronics
Czech New Line (H8)	90	FY22	Q2FY21	100% sourced business
Bulgaria	10	FY22	Q2FY21	100% sourced business

Source: I-Sec research, Company presentation; *captive revenue realisation

Varroc Engineering's (VEL) new facilities in Brazil, Morocco and the new H8 line in Czech Republic have been commissioned and are ramping up gradually. However, due to slowdown in the overall auto sales, the rate of ramp-up has been slower than expected. In the VLS-ELBA JV, the company plans to add six SMT lines with the first one already operational and an additional one line to be operational in FY22 and two more in FY23.

Diversified customer base – but not all customers are equal

Varroc Engineering (VEL) has longstanding relationships with marquee brands, both domestic and international. Bajaj Auto is one of its oldest customers, since 1990. The global lighting business' customers include Ford, Jaguar Land Rover, FCA, Group PSA, Renault-Nissan-Mitsubishi, VW group, Volvo, Tesla among others.

Chart 31: Major customer list

Source: I-Sec research, Company presentation

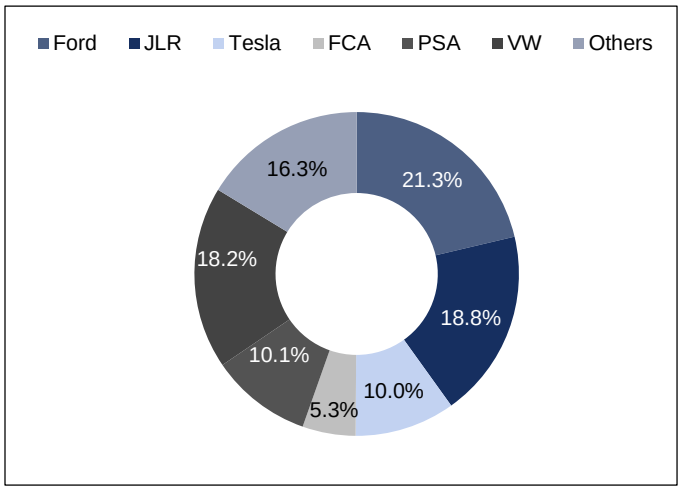
Currently, Volkswagen group is the largest customer in all geographies where VLS is present. In terms of programmes, VLS has complete supply contract for the global programme of Audi A3, VW ID, Tiguan, Skoda Kodiaq, Karoq, and Scala models. VLS also has Ford as its major OEM customer, which accounts for almost 1/5th of its global supply of lamps and has orderbook for Fiesta, Focus, Fusion and Mustang Mach-E models along with contract for supply to transit models from FY21 onwards.

In North America, Tesla had the largest share among OEMs supplied by VEL in FY19. Although Tesla's share of business has reduced due to receding sales of model S/X and not having received the model-3 order, the company has maintained its share in EVs with contract for Tesla Model Y, VW ID and Neo, Renault Zoe and the Jaguar twins I-Pace and E-Pace. In FY21, Ford is poised to become the company's largest customer in the North America region.

In China JV, large part of the revenue contribution (~80%) is from JLR, Changan and Changan Ford with the company trying to make inroads with FAW, SAIC, and Geely (EUR50mn in Q4FY19).

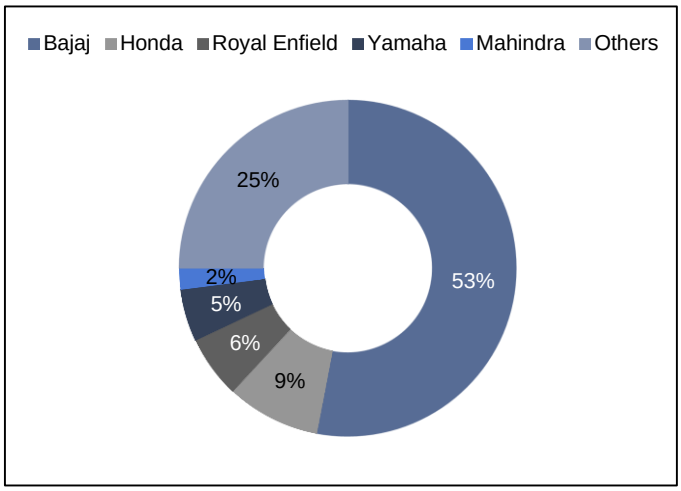
The India business caters to nearly all major 2-wheeler and 3-wheeler OEMs, including Bajaj Auto, Royal Enfield, Yamaha, Suzuki, Honda, Hero, Piaggio, Harley Davidson. As of 2016, VEL had 56 customers in polymer, 20 in electrical and 58 in metallic segments.

Chart 32: Customer-wise – Global Lighting Business for Q2FY20



Source: I-Sec research, Company

Chart 33: Customer revenue split – India business for FY19



Source: I-Sec research, Company

Case study: Global model analysis for LED/AFS penetration

Below we look at the top selling models of major customers of VLS. The exercise is strictly for illustrative purposes – to better understand the current LED penetration and the future scope in the key customer markets. Overall, the LED penetration is leading in North America as compared to Europe with India lagging behind.

Table 8: LED penetration in top-selling models

OEM	Model Sample size	LED availability in base model	LED/ADB availability across models
VW	19	78%	78%
PSA	13	90%	90%
FCA	12	21%	29%
Renault-Nissan	18	50%	72%
Ford	12	25%	75%
Tesla	3	100%	100%
GM	8	62%	87%
Toyota	18	100%	100%
Honda	14	36%	79%
Total	**117**	**72%**	**89%**

Source: I-Sec research, Bloomberg, Company

Table 9: VW popular models and LED/AFS availability

Europe	Model	Base model	LED/ADB Option
VW	Golf/Polo	LED	LED
VW	Passat	LED	LED
VW	Tiguan	LED	LED + AFS
VW	Tauran	LED	LED
Audi	A3	LED	LED
Audi	A4	LED	LED
Skoda	Octavia	LED	LED
North America	**Model**	**Base model**	**LED/ADB Option**
VW	Jetta	LED	LED
VW	Vento	Halogen	-
VW	Passat	LED	LED
Audi	Q5	LED	LED
Audi	A4	LED	LED
Audi	Q7	LED	LED
India	**Model**	**Base model**	**LED/ADB Option**
VW	Polo	Halogen	-
VW	Ameo	Halogen	-
VW	Vento	Halogen	LED
Skoda	Rapid	Halogen	Projector
Skoda	Octavia	LED	LED

Source: I-Sec research, Bloomberg, Company

Table 10: Ford popular models and LED/AFS availability

Europe	Model	Base model	LED/ADB Option
Ford	Fiesta	Halogen	-
Ford	Focus	Halogen	LED
Ford	Kuga	Halogen	LED + AFS
Ford	EcoSport	Halogen	LED
Ford	Mondeo	LED	LED + AFS
North America	**Model**	**Base model**	**LED/ADB Option**
Ford	F-Series	Halogen	LED
Ford	Escape	Halogen	LED
Ford	Explorer	LED	LED + AFS
Ford	Fusion	Halogen	LED
Ford	Focus	Halogen	LED
Ford	Edge	LED	LED
Ford	Fiesta	Halogen	-
India	**Model**	**Base model**	**LED/ADB Option**
Ford	Ecosport	Halogen	LED
Ford	Figo	Halogen	-
Ford	Freestyle	Halogen	-
Ford	Endeavour	LED	LED

Source: I-Sec research, Bloomberg, Company

Among European manufacturers, Volkswagen and PSA are leading the pack in LED penetration with AFS options also available, while Ford and FCA offer LED option only in premium offering. Looking at it the other way, future models of Ford/FCA will have higher potential for growth given their lower LED penetration in existing models.

Table 11: PSA's popular models and LED/AFS availability

Europe	Model	Base model	LED/ADB Option
Peugeot	208	LED	LED
Peugeot	3008	LED	LED
Peugeot	2008	LED	LED
Citreon	C4 Picasso	LED	LED
Citreon	C3	LED	LED
North America	**Model**	**Base model**	**LED/ADB Option**
Peugeot	301	LED	LED
Peugeot	3008	LED	LED
Peugeot	308	LED	LED
Peugeot	508	LED	LED + AFS
Peugeot	Partner	Halogen	Halogen

Source: I-Sec research, Bloomberg, Company

Table 12: Tesla's popular models and LED/AFS availability

Model	Base model	LED/ADB Option
Model S	LED	LED + AFS
Model 3	LED	LED
Model X	LED	LED

Source: I-Sec research, Bloomberg, Company

Varroc currently has limited presence in Japanese OEMs. Below table demonstrates the penetration of LEDs in major models of Japanese OEMs, where its competitors Koito, Stanley and Valeo dominate the market. Since the Japanese market is high on LED penetration and incumbent players have a strong product offering, Varroc has an opportunity to enter the market with value products to grab a portion of the overall pie.

Table 13: FCA's popular models and LED/AFS availability

Europe	Model	Base model	LED/ADB Option
Fiat	Panda	Halogen	LED
Fiat	500/500X	Halogen	-
Fiat	Tipo	Halogen	ADAS
Jeep	Renegade	Halogen	-
Lancia	Ypsilon	Halogen	-
North America	**Model**	**Base model**	**LED/ADB Option**
Jeep	Grand Cherokee	HID	-
Jeep	Wrangler	LED	-
Jeep	Cherokee	LED	LED
Jeep	Patriot	Halogen	-
Dodge	Caravan	Halogen	-
Dodge	Charger	LED	LED
Dodge	Journey	Halogen	-
India	**Model**	**Base model**	**LED/ADB Option**
Jeep	Compass	Halogen	-
Fiat	Grande Punto	Halogen	-

Source: I-Sec research, Bloomberg, Company

Table 14: Renault-Nissan's popular models and LED/AFS availability

Europe	Model	Basic	LED/ADB Option
Renault	Clio	LED	LED
Renault	Captur	LED	LED
Nissan	Qashqai	LED	LED
Renault	Megane	LED	LED
Renault	Duster	Halogen	-
North America	**Model**	**Basic**	**LED/ADB Option**
Nissan	Rogue	LED	LED
Nissan	Altima	Halogen	LED
Nissan	Sentra	Halogen	LED
Nissan	Versa	Halogen	-
Nissan	Murano	LED	LED
Nissan	Pathfinder	LED	LED
Nissan	Frontier	Halogen	-
India	**Model**	**Basic**	**LED/ADB Option**
Renault	Kwid	LED	LED
Renault	Duster	Projector	LED
Datsun	Redi-Go	Halogen	-
Datsun	Go/Go+	Halogen	LED
Nissan	Terrano	Halogen	-
Renault	Captur	LED	LED

Source: I-Sec research, Bloomberg, Company

Table 15: Toyota group's popular models and LED/AFS availability

Japan	Model	Basic	LED/ADB Option
Daihatsu	Hijet	LED	LED
Daihatsu	Tanto	LED	LED
Daihatsu	Move	LED	LED
Toyota	Prius	LED	LED
Daihatsu	Mira (Cuore)	LED	LED
Lexus	LS	LED	LED + AFS
Europe	**Model**	**Basic**	**LED/ADB Option**
Toyota	Vitz (Yaris)	LED	LED
Toyota	RAV4	LED	LED
Toyota	Aygo	LED	LED
Toyota	Auris	LED	LED
Toyota	Camry	LED	LED
North America	**Model**	**Basic**	**LED/ADB Option**
Toyota	RAV4	LED	LED
Toyota	Corolla	LED	LED
Toyota	Highlander	LED	LED
Toyota	4Runner	LED	LED
Lexus	Lexus RX	LED	LED + AFS

Source: I-Sec research, Bloomberg, Company

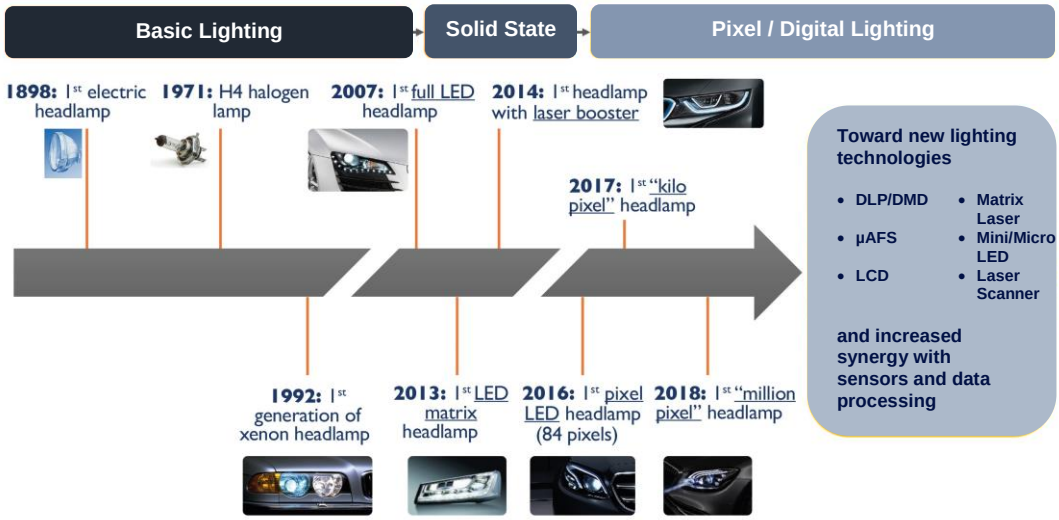
Table 16: Honda's popular models and LED/AFS availability

Japan	Model	Basic	LED/ADB Option
Honda	Nbox	LED	LED
Honda	Jazz	Halogen	-
Honda	N-VAN	Halogen	LED
Honda	Civic	LED	LED
Honda	Insight	LED	LED
Europe	**Model**	**Basic**	**LED/ADB Option**
Honda	Civic	Halogen	LED
Honda	CR-V	LED	LED
Honda	Jazz	Halogen	-
North America	**Model**	**Basic**	**LED/ADB Option**
Honda	CR-V	Halogen	LED
Honda	Civic	Halogen	LED
Honda	Accord	LED	LED
Honda	HR-V	Halogen	-
Honda	Pilot	Halogen	LED
Honda	Odyssey	Halogen	LED

Source: I-Sec research, Bloomberg, Company

Industry overview

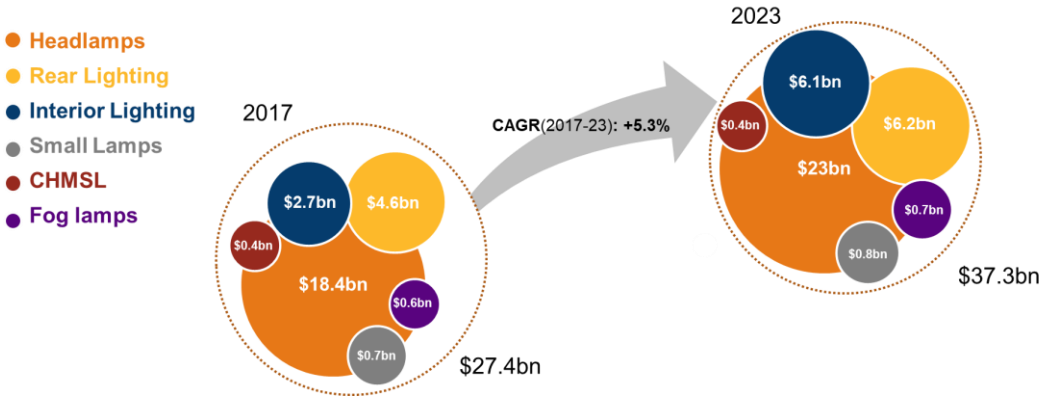
The automotive lighting industry has evolved quite rapidly in the recent years. It took 70 years for the first electric headlamp to move to halogen, 20 years to move from halogen to first Xenon headlamps and only 15 years for LED lamps to get launched. The evolution got fastracked with the introduction of LED Matrix lighting and laser lighting technology.



Source: I-Sec research, Yole

The global automotive exterior lighting market is expected to grow at ~5.3% CAGR from US$27.4bn in 2017 to US$37.3bn in 2023, higher than the global passenger vehicle and light commercial vehicle sales growth at CAGR of 2.9%. The growth is majorly driven by increase in penetration of electric technology led by light-emitting diodes (LEDs) that have a higher value (average selling price) compared to the existing technology. Other drivers being technology innovation, design differentiation, increased lighting content per car and growing demand for safety features like fog lamps, daylight road lighting, etc.

Chart 34: Automotive lighting market size



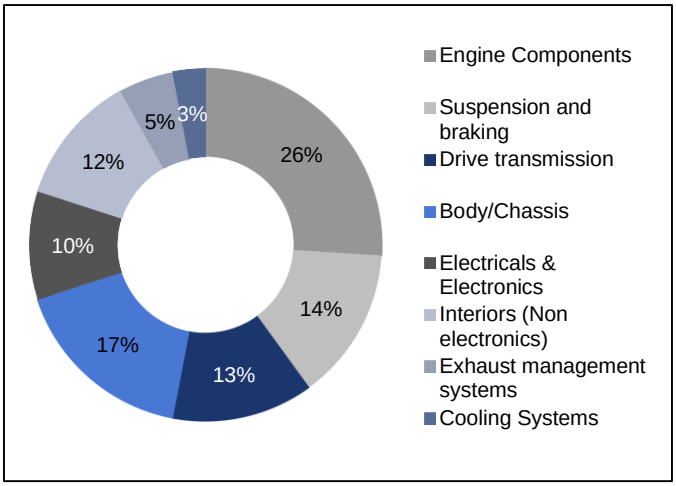
Source: I-Sec research, Yole

The global automotive lighting industry is highly concentrated with 70% of the market share with top five players and top eight players representing 91% of the market share. As per industry, the BRICS and ASEAN nations are likely to lead the growth from FY19-FY22.

India business

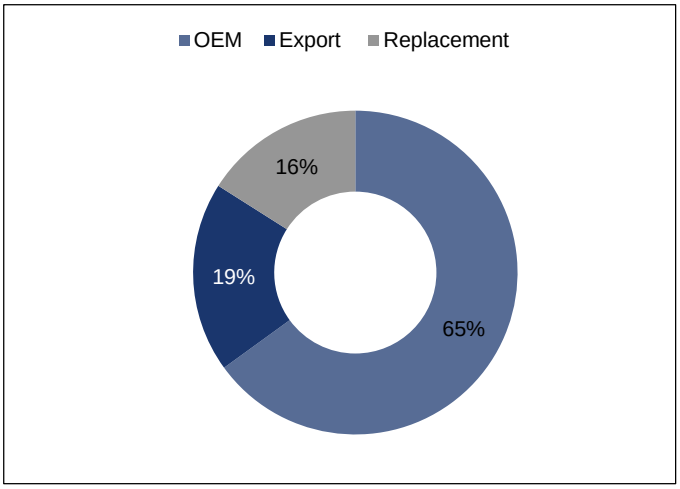
Indian automotive component portfolio is broadly classified into: 1) high-precision organised components such as engine parts, drive transmission, electrical parts, and 2) low-value unorganised components, viz. switches. Domestic auto-component production is expected to decline 4-6% in FY20 due to subdued demand from OEMs. PV segment is expected to shrink 12% and 2W production to fall 7% in FY20.

Chart 35: Revenue split by categories



Source: I-Sec research, Company data, DRHP

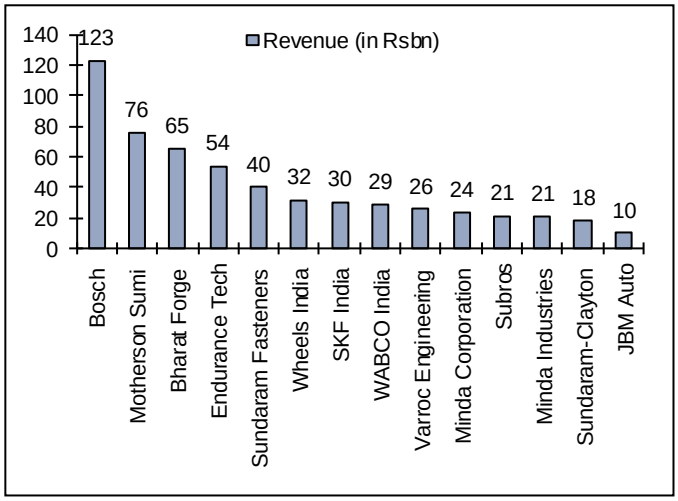
Chart 36: Segment contribution to revenues



Source: I-Sec research, Company data

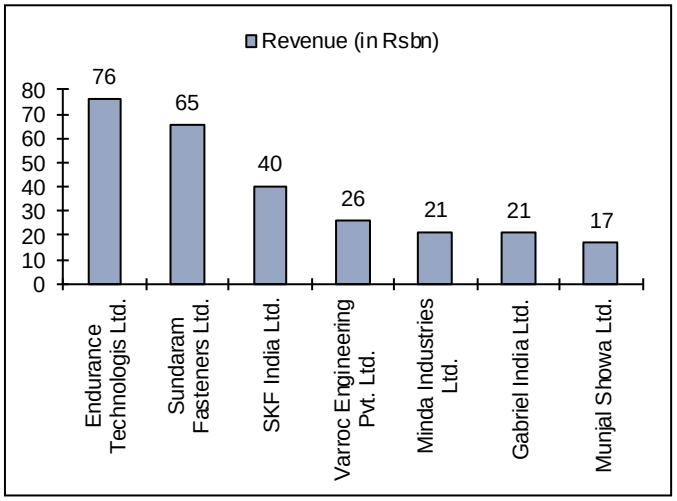
Over the years, the industry has developed capability of manufacturing the entire range of auto-components required for vehicles. The engine and drive transmission parts together contribute over 40% of auto-component industry production. Engine parts, which constitute 26% of production, mainly comprise engine valves, exhaust systems, carburettors, FI systems, powertrain systems, camshafts, crankshafts and piston assembly systems. Drive transmission parts, which constitute 13% of total production, include transmission gears, axle assembly, steering parts and clutch assembly.

Chart 37: India revenues of major auto-component players



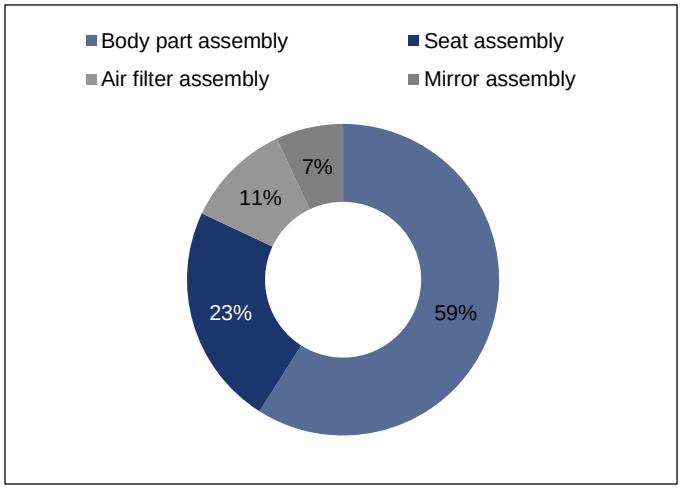
Source: I-Sec research, Company data, DRHP

Chart 38: India revenue of major auto-component players in 2W and 3W space



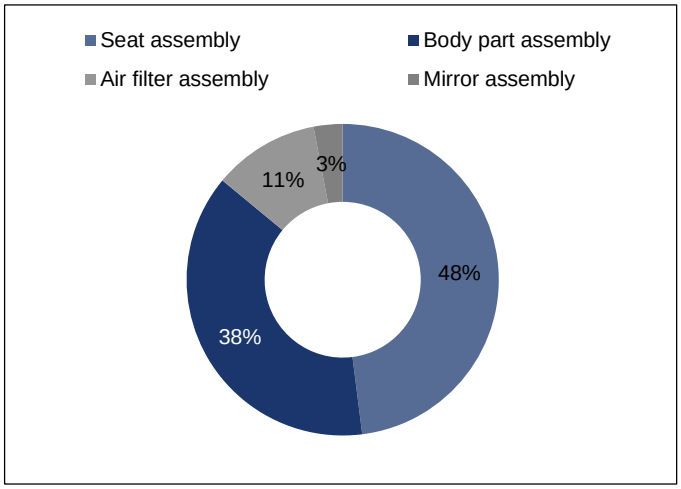
Source: I-Sec research, Company data, DRHP

Chart 39: Polymer segment in 2W: Strong foothold in body part assembly



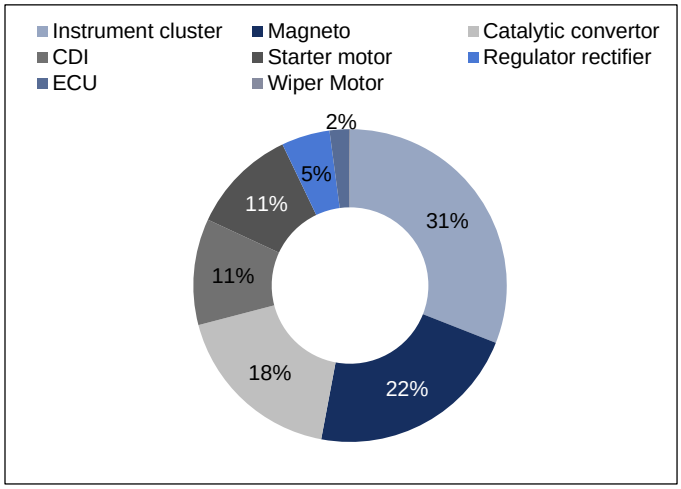
Source: I-Sec research, Company DRHP

Chart 40: Polymer segment in 3W: Bajaj Auto is a major contributor



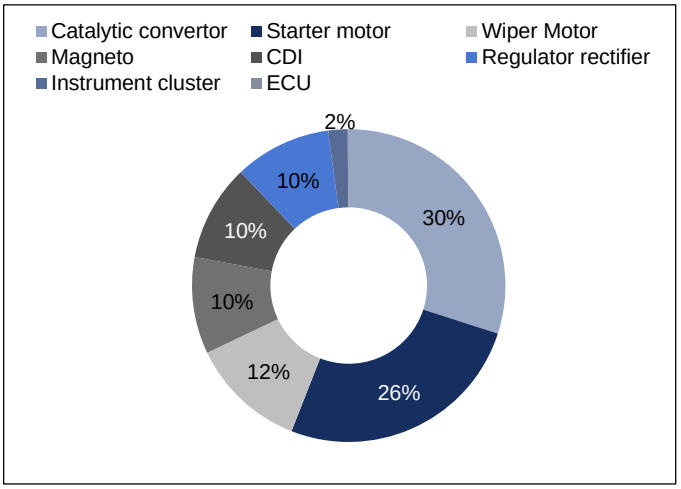
Source: I-Sec research, Company DRHP

Chart 41: Electrical segment in 2W: Catalytic convertor, EFI to drive growth with BS-VI transition



Source: I-Sec research, Company DRHP

Chart 42: Electrical segment in 3W: e-rickshaws – fastest growing segment in Indian auto space



Source: I-Sec research, Company DRHP

Table 17: Major competitors in VEL's business segments

Segment	Major players
Polymer Segment	
Air filter assembly	Lumax, Mahle Filters, Ranee polymers and Varroc
Mirror assembly	Fiem Industries, Sandhar Technologies and Varroc
Seat assembly	Bharat Seats, Meenakshi Polymers, TS Tech and Varroc
Body part assembly	Badve group, Fiem Industries, Lumax and Varroc
Electrical Segment	
Instrument Clusters	JNS Instruments Ltd., Minda Stoneridge Instruments Ltd., Pricol Ltd.
CDI	Denso India Pvt. Ltd., Napino Auto & Electronics Ltd. and India Nippon Electricals Ltd.
RR	Chheda Electricals and Electronics Pvt. Ltd., Flash Electronics Pvt. Ltd., Star Engineer Pvt Ltd and Varroc
Starter Motor	Denso India Pvt. Ltd., Ducati Energia India Pvt., Flash Electronics Pvt. Ltd., Lucas TVS Pvt. Ltd. and Mitsuba Sical India Pvt. Ltd. And Varroc
Wiper Motors	Flash Electronics Pvt. Ltd., Lucas-TVS Pvt. Ltd. and Varroc
ECU	Bosch Automotive Electronics India Pvt. Ltd., Continental Automotive Components (India) Pvt. Ltd., Denso India Pvt. Ltd. and Keihin Fie Pvt. Ltd.
Catalytic Convertors	Mark Exhaust Systems Pvt. Ltd. and S.M. Auto Engineering
Magneto	Denso India Pvt. Ltd. Flash Electronics Pvt. Ltd. and Mitsuba Sical India Pvt. Ltd. And Varroc
Engine valve segment	Rane Engine Valves, Federal Mogul (Goetze) India, Shriram Piston and Varroc
Forged Component segment	Hi-Tech Gears, Musashi Auto Parts, Sundaram Fasteners and Varroc
Lighting segment	Fiem Industries, Lumax, Rinder India Pvt Ltd. (part of Minda Group) and Varroc

Source: I-Sec research, Company DRHP

Table 18: Product introduction timelines in India

	1990 - 2000	2000 – 2010	2010 - 2015	2016	2017	2018
Polymer	• Plastic fans • Shrouds	• Seats • Air filters • Painted parts • Interior moulded parts • Mirrors		• Paper filter elements		
Electrical – Electronics		• Lighting • Magento • Starter motors • LED tail lamp • Digital cluster • Switches	• Catalytic Converters		• LED headlamps	• Electronic Fuel Injection
Metallic	• Engine valves		• Transmission assembly • Forgings in Europe	• Six cylinder crankshaft		

Source: I-Sec research, Company DRHP

BSVI – Opportunity for the future

From 1st Apr'20, Electronic Fuel Injection (EFI) has been made mandatory for 2Ws. Varroc Engineering (VEL) started working on BS-VI emission standard compliance for its customers from 2017 onwards and has started receiving orders for the same. In Feb'18, it signed a JV with Italy's Dell'Orto S.p.a. for the development of EFI systems. The company has also invested in MuCell technology for developing products focusing on reducing product weight.

The stricter emission norms for BS-VI standards provide the company the opportunity to offer a newer alternative to reduce the emission rate compared to normal vehicles. The company has developed a BS-VI compliant catalytic convertor with technological support from Heraeus, Germany, and has already received orders for the same.

VEL is exploring to supply the catalytic converter and EFI system to its existing customers in order to increase the content per customer. The company has recently received supply order for 720,000 units of magneto annually from TVS generating revenue of Rs0.45bn.

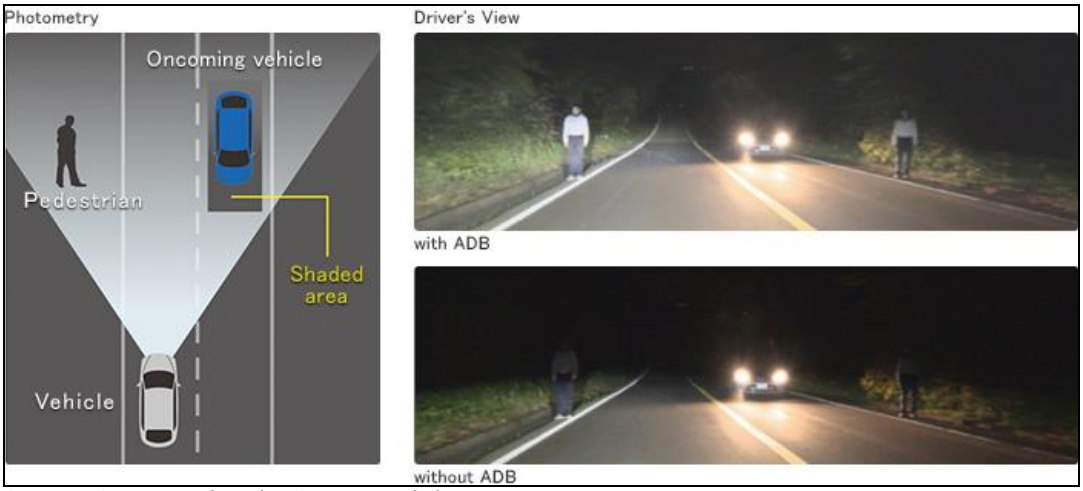
The near-term regulations in the form of emission and safety norms will benefit the India business of VEL. The polymer industry is expected to reach Rs84bn and electricals and electronics segment Rs112bn in FY20.

The road ahead

Future of automotive lighting – Adaptive Driving Beam (ADB)

Varroc Engineering (VEL) has developed an adaptive driving beam system and has started supplying it to customers. It also holds patent on the surface LED and currently supplies it to JLR.

Chart 43: LED array - ADB lighting system



Source: I-Sec research, Koito Company website

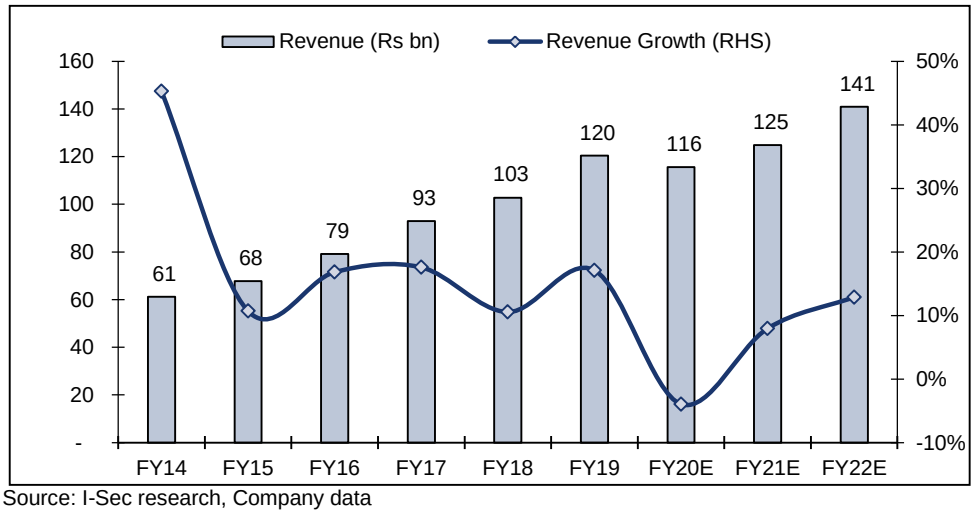
ADB regulatory support critical to drive adoption

Data from the National Highway Traffic Safety Administration (NHTSA) suggests approximately 25% of automotive travel occurs at night. However, nearly 52% of all driver fatalities and 71% of all pedestrian deaths occur during dark driving times. This data shows a correlation between driving in dark or low-light conditions and the likelihood of a collision. According to an American Automobile Association (AAA) survey, turning on high beams can solve the problem; however, majority drivers (~64%) do not use them regularly. ADB system helps in countering this by dynamically increasing or decreasing the lighting intensity of the headlamp based on the conditions in the front of the car.

ADB LED lamps have already been accepted and are used in Europe, Japan with Canada being the recent country to allow use of ADB lights. However, the NHTSA of the US is yet to allow the use of ADB as regulations explicitly prohibit simultaneous use of high-beam and low-beam headlamps and would require a change in FMVSS 108 standard, which is under review.

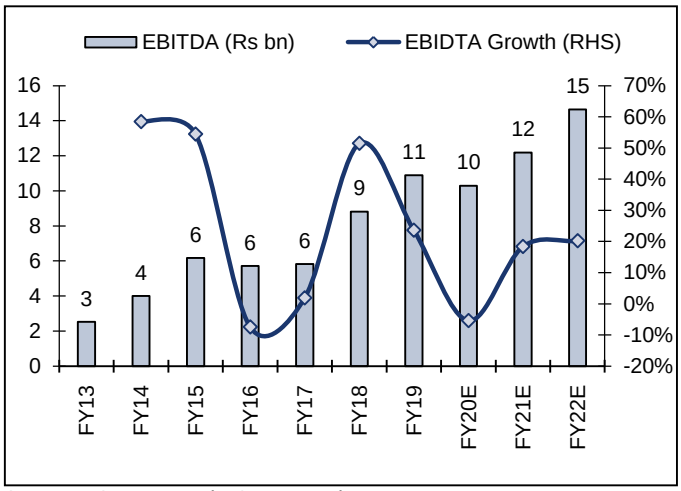
Financials in charts

Chart 44: Revenue growth resulting from focus on innovation



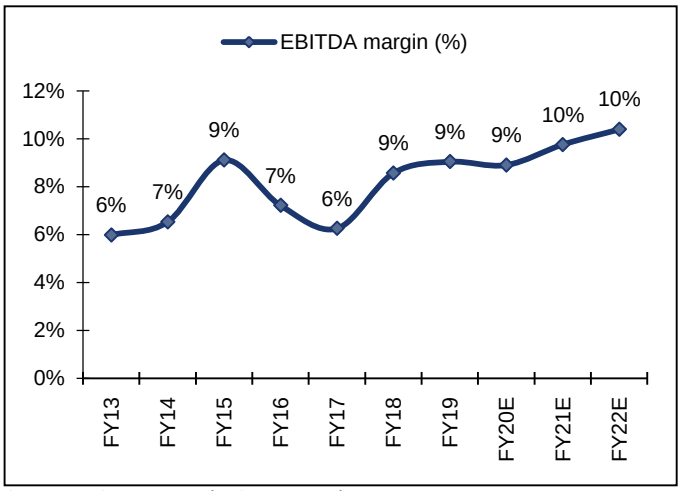
Source: I-Sec research, Company data

Chart 45: EBITDA growth to remain healthy



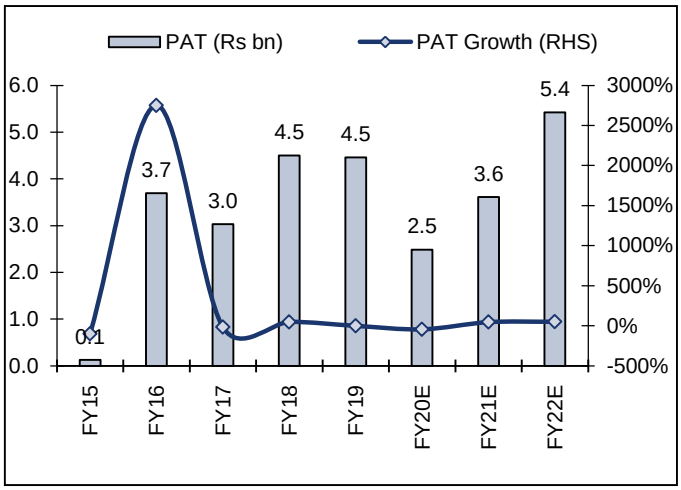
Source: I-Sec research, Company data

Chart 46: EBITDA margins to trend higher



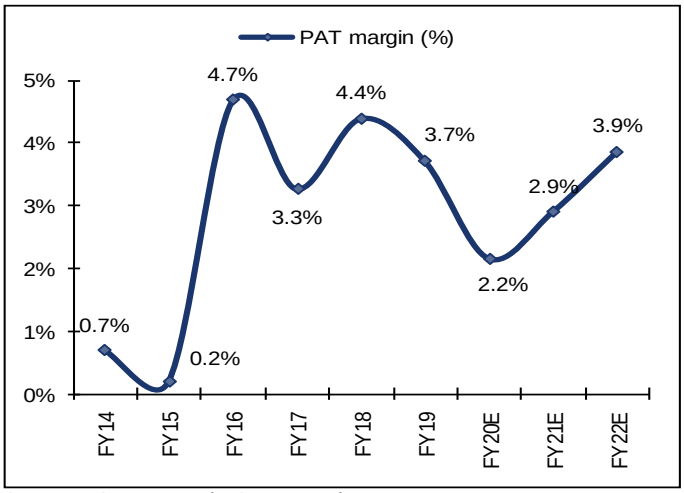
Source: I-Sec research, Company data

Chart 47: Profit growth to mirror EBITDA trend



Source: I-Sec research, Company data

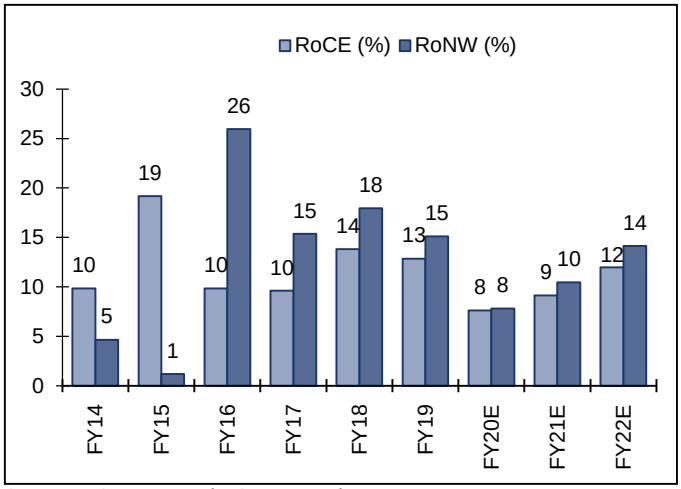
Chart 48: PAT margin trend strong



Source: I-Sec research, Company data

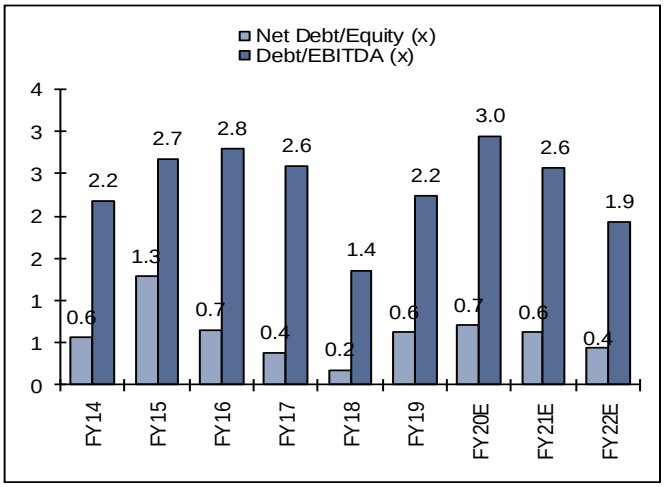
VEL has been showing declining trend in its return ratios. Its RoE has slumped from 26% in FY16 to 15% in FY19, whereas RoCE has declined from 19.0% in FY15 to 13% in FY19. This was largely driven by slowdown in domestic automotive industry and weak ramp-up of global VLS plants.

Chart 49: Return ratios on decline



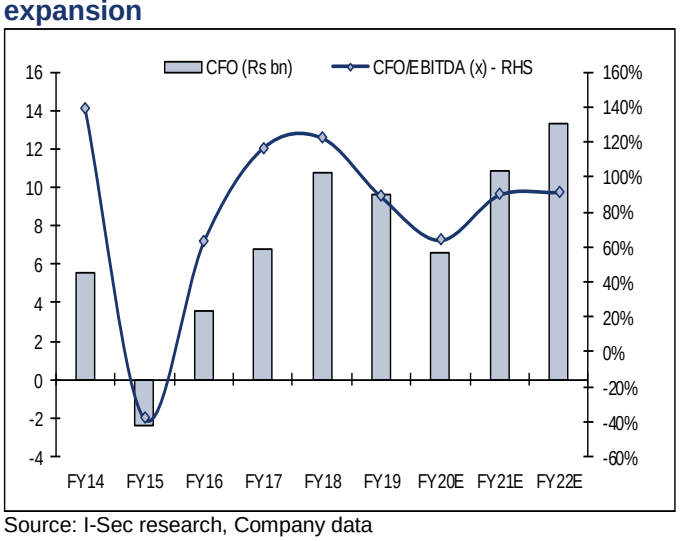
Source: I-Sec research, Company data

Chart 50: Balance sheet discipline consistent



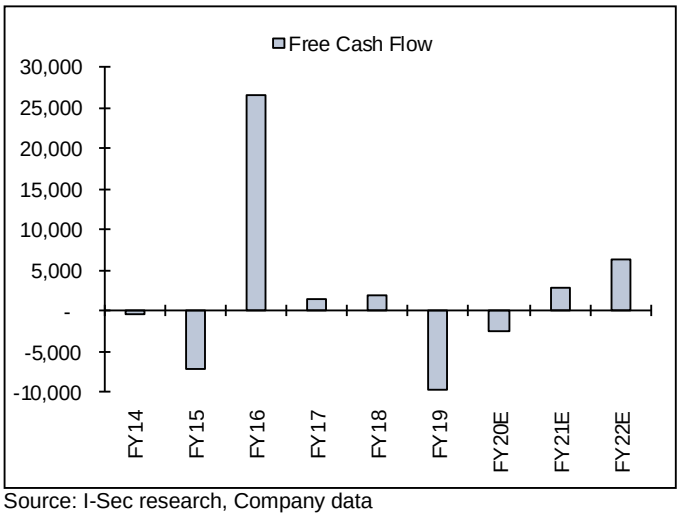
Source: I-Sec research, Company data

Chart 51: Cashflows to improve despite capacity expansion



Source: I-Sec research, Company data

Chart 52: Free cashflow expected to turn positive from FY21 onwards



Source: I-Sec research, Company data

Valuation and recommendation

The company has taken steps towards increasing its reach and presence while expanding capacity to service the demand growth. We expect EBIT growth at 11% CAGR from FY19-22E. Although the stock has witnessed 40% decline over the past one year, we like VEL's business model and current valuations. Due to material global and domestic automotive exposures, we feel its valuation should be on SoTP basis. We value VLS and its China JV at 5.0x EV/EBITDA / 9x P/E FY22E (~10% discount to global peers) and India business at 7.5x EV/EBITDA FY22E (~10% premium to domestic peers) to initiate coverage on Varroc Engineering (VEL) with a **BUY** rating and arrive at a target price of Rs555/share.

Table 19: Valuation summary

Business	FY22	Multiple	Current market value	Rs/share	Valuation remarks
VLS (ex-China)	8,550	5.0	42,749	317	EV/EBITDA; ~10% discount to global peers
India	6,590	7.5	49,427	367	EV/EBITDA; ~10% premium to domestic peers
Net debt			-18,236	-135	
Equity Value			73,941	548	
China JV	100	9.0	897	7	PE multiple; ~10% discount to regional peers
Total Value			**74,838**	**555**	Implied Target PE Multiple : ~14

Source: Bloomberg, Company, I-Sec research

Table 20: Global peer comparison

	US$ mn	P/E (x)			EV/EBITDA (x)			EV/Sales (x)			P/BV (x)			FCF Yield (%)		
Company	**Mkt. Cap.**	**FY20E**	**FY21E**	**FY22E**	**FY20E**	**FY21E**	**FY22E**	**FY20E**	**FY21E**	**FY22E**	**FY20E**	**FY21E**	**FY22E**	**FY20E**	**FY21E**	**FY22E**
Varroc	**812**	**16.8**	**12.5**	**10.4**	**6.7**	**5.7**	**5.0**	**0.6**	**0.6**	**0.5**	**1.7**	**1.6**	**1.4**	**NC**	**6**	**8.6**
Koito	**7,558**	13.7	12.3	11.5	5.0	4.4	4.1	0.8	0.7	0.7	1.7	1.5	1.4	5.1	6.8	7.8
Stanley	**5,005**	16.0	13.4	12.5	6.0	5.3	5.0	1.1	1.1	1.1	1.3	1.3	1.2	8.0	7.5	8.2
Hella	**6,020**	16.5	14.9	13.4	6.1	5.7	5.2	0.8	0.8	0.7	1.8	1.7	1.6	4.5	4.8	5.3
Valeo	**8.456**	19.2	13.6	10.4	19.2	13.6	10.4	0.6	0.6	0.5	1.8	1.7	1.5	3.8	4.8	5.8
Huayu	**12,171**	11.8	10.8	10.0	8.1	7.2	6.5	0.5	0.5	0.5	1.7	1.5	1.4	2.9	3.2	3.5

	P/E (x)			EV/EBITDA (x)			EV/Sales (x)			P/BV (x)			FCF Yield (%)		
	FY17	**FY18**	**FY19**	**FY17**	**FY18**	**FY19**	**FY17**	**FY18**	**FY19**	**FY17**	**FY18**	**FY19**	**FY17**	**FY18**	**FY19**
Varroc	**18.4**	**13.3**	**16.6**	**11**	**6.9**	**6.9**	**0.7**	**0.6**	**0.6**	**2.5**	**1.9**	**1.8**	**NC**	**NC**	**NC**
Koito	19.8	10.5	12.7	8.2	5.3	4.7	1.4	0.8	0.7	3.8	2.2	1.8	4.6	5.9	5.1
Stanley	26.5	14.2	14.1	8.6	5.2	5.6	1.9	1.0	1.1	2.4	1.5	1.4	3.9	9.7	5.5
Hella	16.8	9.9	14.2	6.9	4.1	4.8	0.9	0.6	0.8	2.6	1.6	1.9	NC	11.8	6.9
Valeo	16.9	11.1	31.1	7.5	4.1	5.4	0.9	0.6	0.6	3.4	1.3	1.9	5.5	14	4.3
Huayu	8.3	14.3	7.2	6.6	12.8	13.4	0.3	0.6	0.3	1.3	2.3	1.3	17.9	5.0	2.9

Source: Bloomberg, I-Sec research, Company

Table 21: India peer comparison

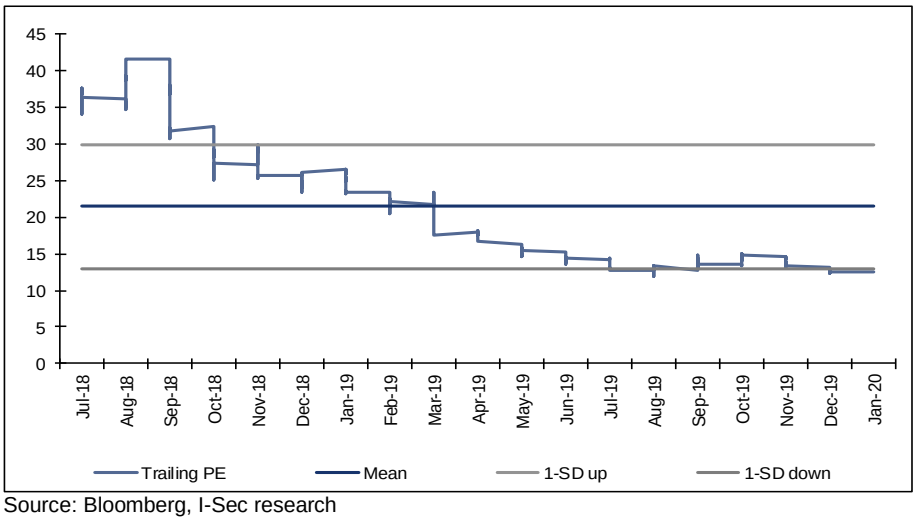
	US$ mn	P/E (x)			EV/EBITDA (x)			EV/Sales (x)			P/BV (x)		
Company	**Mkt. Cap.**	**FY20E**	**FY21E**	**FY22E**	**FY20E**	**FY21E**	**FY22E**	**FY20E**	**FY21E**	**FY22E**	**FY20E**	**FY21E**	**FY22E**
Varroc	**812**	**16.8**	**12.5**	**10.4**	**6.7**	**5.7**	**5.0**	**0.6**	**0.6**	**0.5**	**1.7**	**1.6**	**1.4**
Minda Ind	**1,322**	32.6	23.2	19.3	14.1	11.4	9.7	1.7	1.4	1.3	4.8	4.0	3.4
Sandhar	**209**	17.7	12.8	9.3	7.6	6.7	5.7	0.8	0.7	0.6	1.9	1.7	1.5
Lumax	**164**	15.8	13.1	11.6	8.8	7.4	7.0	0.8	0.7	0.7	2.4	2.1	1.8

	P/E (x)			EV/EBITDA (x)			EV/Sales (x)			P/BV (x)		
	FY17	**FY18**	**FY19**	**FY17**	**FY18**	**FY19**	**FY17**	**FY18**	**FY19**	**FY17**	**FY18**	**FY19**
Varroc	**18.4**	**13.3**	**16.6**	**11**	**6.9**	**6.9**	**0.7**	**0.6**	**0.6**	**2.5**	**1.9**	**1.8**
Minda Ind	21.4	29.7	29.9	15.2	26.0	19.1	1.1	2.2	1.6	3.3	6.7	5.0
Sandhar			16.6			10.6			0.8	NC	NC	2.2
Lumax	23.7	28.6	16.3	14.0	15.8	11.9	1.0	1.3	1.0	4.2	5.6	3.9

Source: Bloomberg, I-Sec research, Company

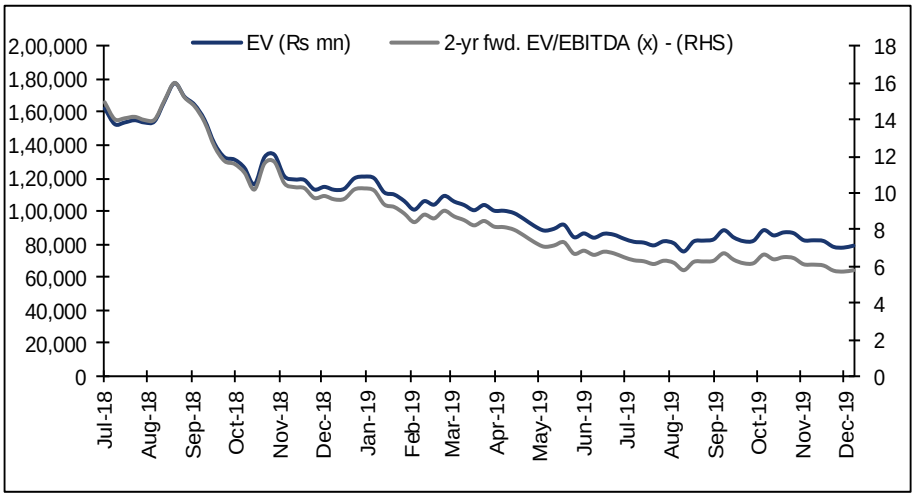
The stock currently trades at 22.4 / 15.4 FY20E / FY21E on P/E basis, while on EV/EBITDA basis it is trading at 7.7x / 6.4x FY18E / FY19E, based on our forecasts.

Chart 53: Trailing 12M P/E chart



Source: Bloomberg, I-Sec research

Chart 54: 2-year forward EV/EBITDA



Source: Bloomberg, I-Sec research

Table 22: I-Sec *vs* consensus estimates

(Rs mn)

	I-Sec			Consensus			Difference (%)		
	FY20E	FY21E	FY22E	FY20E	FY21E	FY22E	FY20E	FY21E	FY22E
Revenue	1,15,603	1,24,799	1,40,875	1,19,290	1,30,071	1,45,132	-3%	-4%	-3%
EBITDA	10,295	12,182	14,642	10,986	12,929	15,294	-6%	-6%	-4%
PAT	2,487	3,612	5,426	3,179	4,399	5,867	-22%	-18%	-8%
EPS (Rs)	18.4	26.8	40.2	23.6	32.6	43.6	-22%	-18%	-8%

Source: Bloomberg, I-Sec research

Key personnel and corporate governance

- Varroc Engineering (VEL) currently has eight members on its Board of directors, with one non-executive, two executive and five independent directors.
- S R B C & Co LLP, Pune, has been appointed as VEL's independent statutory auditor.

Name	Designation	Experience	Education	Compensation (Rs mn)
Stephane Vedie	President and CEO, Varroc Lighting Systems	15 years of experience in automotive lighting	Diploma in purchasing management function, and degree from Ameins Business School	$ 0.3
T.R. Srinivasan	Group Chief Financial Officer	30 years of experience. Previously worked with HLL, Philips, Reliance Digital	PGDM-IIM Calcutta, and Member of ICWA, B.Com. from Bharathidasan University	21.34
Sethumadhavan Dharapuram	Business head – Polymer Division	22 years of experience. Previously worked with GE, Schneider Electric, Stanley Black & Decker	Master's Degree in Material Science	-
Ashwani Maheshwari	CEO, India Business	Previously worked with Birla Tyres, Tata Iron and Steel	BE-IIT Roorkee, MSc from London Business School	19.95
Arjun Jain	Business Head – Electronics-Electrical division	Previously worked with Bain & Co.	Bachelor's degree in Arts from Vassar College, NY	6.89
Naresh Chandra	Chairman and Non-executive director	35 years of experience in automotive industry	Diploma in Business Administration (City of Birmingham College of Commerce)	0.71
Tarang Jain	Managing Director	31 years of experience.	Diploma in Business Administration (University of Lausanne, Switzerland)	52.27
Marc Szulewicz	Independent Director	Previously worked with Valeo, Plastic Omnium	Engineering degree from Ecole Nationale Supérieure des Arts et Métiers, Paris	4.27
Gautam Khandelwal	Independent Director	Previously worked with Nagpur Power and Industries	Bachelor's degree in Economics	3.4
Vijaya Sampath	Independent Director	Previously worked with Bharti Airtel	BA, Madras University, LLB, Mysore University, CS	3.5
Vinish Kathuria	Independent Director	Previously worked with Ericsson India, HT Mobile Solutions	MBA from Duke University's Fuqua School of Business, North Carolina	3.48

Source: Company, I-Sec research

Key risks and concerns

Declining market share in EVs

As per DRHP, Varroc Engineering (VEL) had ~20% market share in the global EV lighting business in FY17. However, lower sales growth of Tesla Model S and VEL's absence in Model-3 and Nissan Leaf, which are the highest-selling EV models worldwide, can lead to a decline in EV market share.

Prolonged slowdown in European markets

Europe accounts for ~46% of VLS business, it has presence across European OEMs. The company is trying to diversify its exposure across other regions and customers. Any continued slowdown in European markets could impact VLS revenue growth.

Annexure 1: Consolidated financials

Table 23: Profit and loss statement

(Rs mn, year ending March 31)

	FY18	FY19	FY20E	FY21E	FY22E
Total Op. Income (Sales)	**1,02,788**	**1,20,365**	**1,15,603**	**1,24,799**	**1,40,875**
Operating Expenses	**93,980**	**1,09,476**	**1,05,307**	**1,12,617**	**1,26,233**
EBITDA	**8,808**	**10,889**	**10,295**	**12,182**	**14,642**
% margins	*8.6%*	*9.0%*	*8.9%*	*9.8%*	*10.4%*
Depreciation & Amortisation	3,865	5,656	6,598	7,146	7,591
EBIT	**4,944**	**5,233**	**3,698**	**5,036**	**7,052**
Other Income	386	908	817	940	1,128
Gross Interest	862	968	1,287	1,328	1,285
PBT	**4,468**	**5,172**	**3,227**	**4,647**	**6,894**
Less: Exceptionals	-	-	-	-	-
PBT after Exceptionals	**4,468**	**5,172**	**3,227**	**4,647**	**6,894**
Less: Taxes	651	989	581	929	1,517
Less: Minority Interest	5	35	16	37	55
Add: Profit from Associates	690	315	(143)	(68)	104
Net Income (Reported)	**4,503**	**4,463**	**2,487**	**3,612**	**5,426**
Net Income (Adjusted)	**4,503**	**4,463**	**2,487**	**3,612**	**5,426**

Source: Company data, I-Sec research

Table 24: Balance sheet

(Rs mn, Year ending March 31)

	FY18	FY19	FY20E	FY21E	FY22E
ASSETS					
Current Assets	**30,604**	**33,671**	**36,560**	**38,589**	**43,436**
Cash & cash eqv.	*3,289*	*1,634*	*2,517*	*2,522*	*2,723*
Current Liabilities & Provisions	**26,102**	**29,678**	**27,871**	**28,720**	**32,420**
Net Current Assets	**4,503**	**3,993**	**8,689**	**9,869**	**11,016**
Investments	**3,565**	**3,434**	**4,434**	**6,434**	**7,434**
Total Fixed Assets	**31,480**	**45,593**	**47,995**	**48,849**	**48,258**
Capital Work-in-Progress	*3,441*	*9,995*	*9,995*	*9,995*	*9,995*
Other non-current asset	1,844	3,077	3,077	3,077	3,077
Total Assets	**41,392**	**56,097**	**64,195**	**68,228**	**69,785**
LIABILITIES					
Borrowings	**11,990**	**24,393**	**30,393**	**31,393**	**28,393**
long-term borrowings	6,361	4,572	13,572	17,572	17,572
short-term borrowings	5,629	19,821	16,821	13,821	10,821
Deferred Tax Liability Net	-521	-842	-842	-842	-842
Other Non-current Liabilities	1,643	1,675	1,659	1,622	1,566
Equity Share Capital	135	135	135	135	135
Reserves & Surplus	28,145	30,736	32,850	35,921	40,532
Net Worth	**28,280**	**30,871**	**32,985**	**36,055**	**40,667**
Total Liabilities	**41,392**	**56,097**	**64,195**	**68,228**	**69,785**

Source: Company data, I-Sec research

Table 25: Cashflow statement

(Rs mn, Year ending March 31)

	FY18	FY19	FY20E	FY21E	FY22E
Operating cashflow before working capital changes	**9,229**	**11,088**	**10,372**	**12,087**	**14,302**
Net Working Capital Changes	2,362	(1,146)	(3,813)	(1,175)	(946)
Others	(810)	(280)	-	-	-
Operating Cashflow	**10,781**	**9,662**	**6,560**	**10,912**	**13,356**
Capital Commitments	(8,903)	(19,328)	(9,000)	(8,000)	(7,000)
Free Cashflow	**1,878**	**(9,666)**	**(2,440)**	**2,912**	**6,356**
Cashflow from Investing Activities	**(6,013)**	**(15,096)**	**(10,000)**	**(10,000)**	**(8,000)**
Issue of Share Capital	-	-	-	-	-
Inc/(Dec) in minority interest	6	34	(16)	(37)	(55)
Inc/(Dec) in borrowings	(3,092)	12,403	6,000	1,000	(3,000)
Dividend paid	(8)	(74)	(373)	(542)	(814)
Interest paid	(862)	(968)	(1,287)	(1,328)	(1,285)
Others	(1,276)	(3,362)	(0)	-	0
Cashflow from Financing Activities	**(5,232)**	**8,032**	**4,323**	**(907)**	**(5,154)**
Net Cashflow	**(463)**	**2,598**	**883**	**5**	**201**
Opening Cash & Bank balance	**5,221**	**4,758**	**1,634**	**2,517**	**2,522**
Closing Cash & Bank balance	**4,758**	**7,356**	**2,517**	**2,522**	**2,723**
Increase / (Decrease) in Cash & cash equivalents	**(463)**	**2,598**	**883**	**5**	**201**

Source: Company data, I-Sec research

Table 26: 5-stage DuPont analysis

(%, Year ending March 31)

	FY18	FY19	FY20E	FY21E	FY22E
Tax Burden (Adjusted PAT/PBT)	1.0	0.9	0.8	0.8	0.8
Interest Burden (PBT/EBIT)	0.9	1.0	0.9	0.9	1.0
EBIT Margin (EBIT/Sales)	0.0	0.0	0.0	0.0	0.1
Asset Turnover (Sales/Total Assets)	2.5	2.1	1.8	1.8	2.0
Financial Leverage (Total Assets/Equity)	1.5	1.8	1.9	1.9	1.7
ROE	18.0	15.1	7.8	10.5	14.1

Source: Company data, I-Sec research

Table 27: Key ratios

(Year ending March 31)

	FY18	FY19	FY20E	FY21E	FY22E
Per Share Data (in Rs)					
EPS (Basic)	33.4	33.1	18.4	26.8	40.2
EPS (Adjusted)	33.4	33.1	18.4	26.8	40.2
Cash EPS	62.1	75.1	67.4	79.8	96.6
Dividend per share (DPS)	0.1	0.5	2.8	4.0	6.0
BVPS (Adjusted)	211.3	230.8	246.3	268.8	302.6
Growth Ratios (%)					
Total Op. Income (Sales)	11	17	-4	8	13
EBITDA	51	24	-5	18	20
Net Income (Adjusted)	49	-1	-44	45	50
EPS (Adjusted)	49	-1	-44	45	50
Cash EPS	31	21	-10	18	21
BVPS (Adjusted)	29	9	7	9	13
Valuation Ratios (x)					
P/E (Adjusted)	13.5	13.6	24.4	16.8	11.2
P/BV (Adjusted)	2.1	1.9	1.8	1.7	1.5
EV/EBITDA	7.5	7.3	8.2	6.8	5.4
EV/Sales	0.6	0.7	0.7	0.7	0.6
Return/Profitability Ratios (%)					
EBITDA Margin	8.6	9.0	8.9	9.8	10.4
Net Income Margin (Adjusted)	4.4	3.7	2.2	2.9	3.9
RoCE	13.8	12.9	7.6	9.1	12.0
RoNW	18.0	15.1	7.8	10.5	14.1
Dividend Payout Ratio	0.2	1.7	15.0	15.0	15.0
Dividend Yield	0.0	0.1	0.6	0.9	1.3
Solvency/Wkg. Cap. Ratios (x)					
Net D/E	0.2	0.6	0.7	0.6	0.4
Gross Debt/EBITDA	1.4	2.2	3.0	2.6	1.9
EBIT/Interest	5.7	5.4	2.9	3.8	5.5
Current Ratio	1.2	1.1	1.3	1.3	1.3
Quick Ratio	0.7	0.7	0.8	0.8	0.8
Inventory (days)	39	42	42	42	42
Receivables (days)	50	41	41	41	41
Payables (days)	70	62	62	60	60

Source: Company data, I-Sec research

Annexure 2: Index of tables and charts

Tables

Table 1: Valuation summary 4
Table 2: Global emission standards 10
Table 3: Fuel consumption comparison of lighting systems 10
Table 4: Lighting as a % of revenue for key players 11
Table 5: Market share table of key players within sub-segments 11
Table 6: Lighting manufacturing and R&D facilities of major players 13
Table 7: Comparison of monthly wages 14
Table 8: LED penetration in top-selling models 18
Table 9: VW popular models and LED/AFS availability 18
Table 10: Ford popular models and LED/AFS availability 18
Table 11: PSA's popular models and LED/AFS availability 19
Table 12: Tesla's popular models and LED/AFS availability 19
Table 13: FCA's popular models and LED/AFS availability 19
Table 14: Renault-Nissan's popular models and LED/AFS availability 19
Table 15: Toyota group's popular models and LED/AFS availability 20
Table 16: Honda's popular models and LED/AFS availability 20
Table 17: Major competitors in VEL's business segments 23
Table 18: Product introduction timelines in India 24
Table 19: Valuation summary 28
Table 20: Global peer comparison 28
Table 21: India peer comparison 28
Table 22: I-Sec *vs* consensus estimates 29
Table 23: Profit and loss statement 32
Table 24: Balance sheet 32
Table 25: Cashflow statement 33
Table 26: 5-stage DuPont analysis 33
Table 27: Key ratios 34

Charts

Chart 1: Portfolio diversification across components 2
Chart 2: Consolidated revenue split by customer 2
Chart 3: Strong growth potential 2
Chart 4: Return ratios continue to be healthy 2
Chart 5: LED penetration in top-selling models 2
Chart 6: R&D spends – Peer comparison 2
Chart 7: Revenue split by region 5
Chart 8: Revenue split by segments 5
Chart 9: Revenue split by end-use 5
Chart 10: Consolidated revenue split by customer 5
Chart 11: Market size of lighting technologies (US$ mn) 7
Chart 12: Penetration of LEDs in headlamps and rear lamps 7
Chart 13: Portfolio of lighting technologies for PV OEMs 8
Chart 14: Structure of LED module 9
Chart 15: Portfolio of 2W solutions for OEMs in India 9
Chart 16: Penetration of LEDs in headlamps and rear lamps 10
Chart 17: Revenue share by region – Koito 11
Chart 18: Revenue share by region – Stanley 11
Chart 19: Revenue share by region – Hella 11
Chart 20: Revenue share by region – Valeo 11
Chart 21: R&D spend across global peers 12
Chart 22: Accumulated D&A as percent of gross block 12

Chart 23: FCF and capex comparison – Koito 12
Chart 24: FCF and capex comparison – Stanley 12
Chart 25: FCF and capex comparison – Hella 12
Chart 26: FCF and capex comparison – Valeo 12
Chart 27: FCF and capex comparison – Huayu 13
Chart 28: FCF and capex comparison – Varroc 13
Chart 29: Varroc – 15 manufacturing facilities globally 14
Chart 30: Varroc – Manufacturing facilities and R&D centres across India 15
Chart 31: Major customer list 16
Chart 32: Customer-wise – Global Lighting Business for Q2FY20 17
Chart 33: Customer revenue split – India business for FY19 17
Chart 34: Automotive lighting market size 21
Chart 35: Revenue split by categories 22
Chart 36: Segment contribution to revenues 22
Chart 37: India revenues of major auto-component players 22
Chart 38: India revenue of major auto-component players in 2W and 3W space 22
Chart 39: Polymer segment in 2W: Strong foothold in body part assembly 23
Chart 40: Polymer segment in 3W: Bajaj Auto is a major contributor 23
Chart 41: Electrical segment in 2W: Catalytic convertor, EFI to drive growth with BS-VI transition 23
Chart 42: Electrical segment in 3W: e-rickshaws – fastest growing segment in Indian auto space 23
Chart 43: LED array - ADB lighting system 25
Chart 44: Revenue growth resulting from focus on innovation 26
Chart 45: EBITDA growth to remain healthy 26
Chart 46: EBITDA margins to trend higher 26
Chart 47: Profit growth to mirror EBITDA trend 26
Chart 48: PAT margin trend strong 26
Chart 49: Return ratios on decline 27
Chart 50: Balance sheet discipline consistent 27
Chart 51: Cashflows to improve despite capacity expansion 27
Chart 52: Free cashflow expected to turn positive from FY21 onwards 27
Chart 53: Trailing 12M P/E chart 29
Chart 54: 2-year forward EV/EBITDA 29

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