



Automotive components



Source: Refinitiv

Market data

EPIC/TKR	SCE
Price (p)	24.5
12m High (p)	26
12m Low (p)	12
Shares (m)	136
Mkt Cap (£m)	33.3
EV (£m)	31.7
Free Float*	86%
Market	AIM

*As defined by AIM Rule 26

Description

Surface Transforms (ST) is 100% focused on manufacture and sales of carbon ceramic brake discs. It has recently expanded its manufacturing capacity.

Company information

Non-Exec. Chair.	David Bundred
CEO	Dr Kevin Johnson
Finance Director	Michael Cunningham
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Key shareholders

Directors	14.0%
Canaccord	14.8%
Unicorn	12.3%
Richard Gledhill esq. (director)	9.9%
Richard Sneller esq.	8.2%
Hargreaves Lansdown	4.5%

Diary

29/30 Oct	Capital markets day
12 Nov	AGM
Apr'20	Report for 7 months to Dec'19

Analyst

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SURFACE TRANSFORMS

Recent major contract wins transform prospects

ST's results, announced 9 September, were in line with expectations. Since then, ST has secured a further £0.4m revenue, prompting us to upgrade FY19 PBT estimates by £0.25m. Historical results do not reflect a series of substantial new contracts won, post May 2019 year-end, which have transformed the company. It now has multi-year, multi-million, recurring income contracts from European-based global OEMs. Revenue from one commences October 2021, with start of production (SOP) for the other towards the end of calendar 2021. These will support EBITDA-positive (post-tax credit) for 2020 and profitability in 2022.

- ▶ **ST's potential is clearly set:** It is set to win a large share in a carbon ceramic brake disc market currently worth ca.£150m p.a., growing fast. It has now won its first major contracts. We consider the addressable market to be £2bn p.a., equating to 4.5m discs, which is (only) near 10% of total European auto sales.
- ▶ **Year to May'19:** Historical numbers showed a well-flagged revenue fall, largely due to minor delays and demand volatility from aftermarket distributors, all part of the journey to recent contract wins. Our forward estimates only reflect existing contracts. Pre-tests for prospective clients are progressing well.
- ▶ **Capacity allocation model:** ST's capacity-in-place is £17m sales p.a. Scope for expansion is significant, and – typical for new automotive components – as volumes rise, production efficiencies also rise. Prices can thus fall, with maintained profit margins, expanding market demand exponentially.
- ▶ **Risks:** ST has invested ahead of these firm orders and so is well ahead, in terms of capital investment. These contracts benefit from set-pricing and highly predictable timings of off-take, with the start of production date set. Only one competitor exists, and no more are envisaged for many years.
- ▶ **Investment case:** This is a large, growing market, 99%-supplied by one, highly-profitable player. This single supply was a most anomalous position for an auto OEM market – now ST also supplies. June/July contract wins de-risk the business, and both open and expand the target market. The path to ST's discs being designed-in to many more models is clear.

Financial summary and valuation

Year-end May*/ December**(£m)	FY18*	FY19*	7-month 19E**	FY20E**	FY21E**	FY22E**
Sales	1.36	1.00	1.50	3.30	4.10	5.80
EBITDA	-2.00	-2.63	-1.00	-0.55	-0.10	1.00
EBITA	-2.30	-2.97	-1.20	-1.25	-0.80	0.30
PBT	-2.30	-2.98	-1.20	-1.25	-0.80	0.30
PAT	-1.83	-2.06	-0.90	-0.70	-0.25	0.85
EPS (adjusted, p)	-1.66	-1.64	-0.66	-0.51	-0.18	0.62
Shareholders' funds	5.55	6.96	6.05	5.35	5.10	5.95
Net (debt)/cash	0.62	1.60	1.60	1.20	1.70	3.00
P/E (x)	loss	loss	n.a.	loss	loss	39.5
EV/sales (x)	14.7	23.8	n.a.	9.6	7.7	5.0
EV/EBITDA (x)	loss	loss	n.a.	loss	loss	29.0
DPS (p)	nil	nil	nil	nil	nil	nil

*May year-end, **the company has announced its change of year-end to December
Source: Surface Transforms accounts, Hardman & Co Research estimates

Investment case

Since year end, the awaited multi-year contracts have been secured

This is the final – contractual – confirmation that ST has reached the “next level”

Great visibility to current estimates....

...further upside; clear potential

The orders secure cashflow positive in 2021 and profits (both pre-tax and post-tax) in 2022E

There is only one competitor and it will stay that way for many years....

... because accreditation lead-times take many years; these are barriers to competition

The recent results and announcements post year-end

See page 3 for recent new contracts. There have been a number of announcements regarding new contracts since year-end. These are transformative. The series of orders – announced in June and July of this year – takes annual sales projections in calendar 2022 to six times its historical sales. We consider this to be final confirmation of acceptance of both the product and its manufacturing process (and the supply chain within that) by two global original equipment manufacturers (OEMs). This is a major endorsement and takes the company to the “next level” on its journey as one of two suppliers into the large and significantly (order of magnitude expansion projected) growing market. The two OEMs now have become multi-year, multi-million pound Surface Transforms (ST) customers. One was already a smaller client for work before the brakes going on the full production model. These are big players, but they also are cautious and deliberate. This comes after extensive pre-contract client trials. Progress, indeed.

Our estimates only include contracts in place

On 26 September, the company won an additional £0.4m short-term contract from a new customer. Our forward estimate numbers only show firm contracts. All three major OEM customers have deep relationships with ST, by the nature of the safety mission-critical component and the years of testing by the potential customer. Other potential customers are well progressed in their own track-testing of the product and we would anticipate some news from those within the time horizon of our estimates.

Visibility is high, once an order is won. At this stage of development, models benefiting from the carbon ceramic brake discs are launched with typically several years’ sales order backlogs. With these two orders won, the revenue deriving from them – and the gross margins – is highly predictable. We expect there to be significant potential further upside. The reason is that OEMs’ tests on any ‘mission-critical’ component such as ST’s always take years. There are well-advanced tests (OEM 3), which have clear capacity to deliver further significant revenue upside in our financial model’s timeframe. Timing is in the hands of the potential client.

The nature of the contracts and clients have demonstrated the high visibility to our financial estimates. ST’s products are designed into models which have a long order backlog at launch and so delivery-rate timings are production-volume driven not demand driven. Full production contracts, with precise timing and pricing, now take the company to cashflow positive and profitability in 2022E.

The market position – only one competitor and high barriers

Looking deeper at ST’s position in the carbon ceramic brake discs market: it has been making an exceptionally technically-demanding product for nearly a decade now. This is – and will remain for the foreseeable future – a specialist component market supplied only by two, including Surface Transforms. As ST supplies only ca.2% of the 2020 market and now has the credibility of several leading global OEMs’ supply contracts, the volume ramp-up potential is clear.

There is only one other competitor – the only one for the foreseeable future. For OEMs to grow a component market size, a dual-source is invariably required. The fact that ST is now that second source will, in itself, enlarge the market. Having only one supplier into the global OEMs was a log-jam to market expansion. That log-jam is removed. For these OEMs, it’s been many years of testing the ST product and a £5.8m sales rate is just a couple of small models. It is always like this. The global OEMs are very demanding: testing and re-testing, then toe in the water, followed by much greater volumes. This has resulted in a (predicted) log-jam before successful order

ST's product: superior to the competitor and far superior to the existing (iron) product

Major barriers to competition

Our margins model brings robust figures

Manufacturing is in place – and operating cashflow broadly finances of expansion

OEM 6 – an existing client: two contracts

Koenigsegg – another existing ST customer

A new client – ST has been working on this for years

confirmation. These announcements are the end of the log-jam. They are just their “toe in the water” first orders, we consider.

Product superiority drives the progress. ST's product demonstrates superior technology vs. the existing competitor, including running at a 150 °C lower temperature, as well as other attributes. We have referred to the long-term client pre-testing (of this superior product), which erects barriers to this growth market. ST is on the right side of the barriers.

Margin visibility stems from these attributes

This positioning underpins ST's gross margins, in our view. Margins are ca.65% currently and remaining at this level in the contracts we assess, trending down clearly as volumes expand by orders of magnitude. The company has a robust production cost-reduction plan, which has halved production costs in the past five years. This trend will continue. At no time do we see gross margins below 50% even on volumes at an order of magnitude higher from the run-rate of these new contracts.

Significant manufacturing capacity for further growth

All manufacturing capacity is fully in place. We shall turn later to the potential, but here we look at numbers based on orders secured. Numbers are still small: £5.8m turnover in 2022 and a profit being registered on that level of sales. Two years ago – in full anticipation of these types of orders – a factory with £17m revenue capacity was opened. An eventual doubling in capacity would require ca.18 months' gross profits from the existing capacity.

The “game-change” of June and July 2019

28 June: OEM 6 contract award

Two contracts provide an order book of ca.£8m with OEM 6 over the next five years, and discussions continue regarding other future models with significantly higher anticipated production volumes. This is for a limited-edition car, produced over three years. Start of production is scheduled for the end of 2021. The Board estimates that the contract will generate £6m lifetime sales (excluding spares). Hardman & Co expects spares revenue of a relatively material nature, but we include zero from this source in our estimates. Separately, and in recognition of the delays to SOP of the original car in the first contract, it has been agreed that Surface Transforms will be paid £0.3m cash.

28 June: Koenigsegg contract award

The second new contract is with Koenigsegg, another existing ST customer, for the Jesko, its new 300mph supercar. ST will be the tier-one supplier for the carbon ceramic brake disc, with annual revenues of ca.£0.3m.

16 July: OEM 5 contract award

ST received an order for the production tooling. A master purchase agreement, and a multi-year supply and pricing agreement have since been received. ST has been selected as sole supplier of the carbon ceramic brake disc option on one axle of a new edition of an existing, well-known model of this German OEM 5. “The existing model already uses carbon ceramic discs as an option and therefore the forecast production volumes reflect this experience. The lifetime revenue on this specific car model contract is estimated to be approximately €11.8m commencing in October 2021. Annual revenue is estimated to be approximately €2.0m per year before tapering off during 2026.” There is a commercial understanding, including the opportunity to be selected for further multiple vehicle platforms into OEM 5 over the coming years (as new appropriate models launch).

Risks and mitigation

Cashflow

The company is currently cashflow-negative. Meaningful, positive cashflow is built into the financial projections on current contracts, which run for several years.

Cash burn

Currently, inventories and work in progress are higher than they will be – as a percentage of sales – in the longer run. This is a function of the modest level of sales, certain minimum-size contracts with supply-chain partners and dual-sourcing of some suppliers in the year, as the company switched suppliers. While we make allowance for modest work-in-progress (WIP) outflow in our cashflow model, we do not anticipate onerous WIP implications for OEM supplies. This is, however, yet to be demonstrated.

Financing for foreseeable capital expenditure is well-covered by net operating profits because it can be rolled out on a phased basis. This assumption is on the basis of steady timing on contract wins.

Product and intellectual property (IP)

IP and product superiority

The product has been tested in use by customers for several years and by prospective customers in extreme-condition road tests. The product works. As volumes ramp up, we have every expectation that quality assurance is a high priority. Industry standards qualification has been secured, with imminent granting of the latest industry qualification confidently expected.

Competitive position

There is only one competitor, BremboSGL, and the substantial ownership of it by the Quandt family (the owners of BMW) makes other OEMs cautious, thereby offering a very significant opportunity for ST.

Strong competitive position – and not needing to take volume from competitor

Modern, cell-configured manufacturing facility

This mitigates: i) the order fulfilment risk as seen by the potential customer; and ii) the risk faced by ST in expanding production. To be specified in any meaningful volume, ST still has the opportunity to cut its manufacturing costs. Each programme to achieve cost cuts is clearly calibrated. The manufacturing has a cell structure, making incremental scaling relatively pain-free.

New factory successful commissioning, modular structure for easy expansion, cost cutting

Further detailed points

We highlight the following points:

- ▶ In the past, over half of revenue has been from outside the UK, in a range of currencies. Most costs are in £. Going forward, OEM volume contracts will likely be €-priced. OEM 5 is €-priced. OEM 6 is a British £-based OEM.
- ▶ The only debt the company has is an interest-free loan related to public-sector funders. The company has never been in a net debt position.
- ▶ The OEM 6 cars (and thus the ST revenues) are all pre-sold.
- ▶ The OEM 5 and OEM 6 contracts have guaranteed pricing structures (in respective currencies of € and £).
- ▶ Whichever way the exit from the single EU market and possible trade barriers develop, the product is a high-gross-margin sale. Recent contract wins have been secured well after the Referendum result to exit the EU. However, supply-chain disruption could potentially lead to warehousing of the finished product in Germany.

Financial performance

Change in year-end makes eminent sense

On 15 August, the company announced that there was to be a change in the year-end from May to December. As stated by the Chairman at the time: "This change brings the Company's reporting periods in line with both its new and target OEM customers and also avoids having a year-end in the middle of the automotive racing season. In addition, we believe that it will simplify messaging to the investment community."

Revenue account

New order secured on 26 September

Most recently, ST has secured a £0.4m sales order from OEM 1. It is stated that this order will be satisfied in full this year. Hardman & Co estimates 60% gross margins. For FY20 onwards, we estimate higher gross margins as the mix is enriched by development revenues. This contract is as a tier-one supplier of carbon ceramic discs on a track car, to a new customer for the company. There may be potential for follow-on work with OEM 1.

Revenue account							
Year-end May*/December**(£m)	FY17*	FY18*	FY19*	7-month period FY19E**	FY20E**	FY21E**	FY22E**
Sales	0.70	1.36	1.00	1.50	3.30	4.10	5.80
Gross profit	0.43	0.92	0.62	0.90	2.45	2.90	4.00
Gross margin	61.43%	68.00%	61.70%	60.00%	74.35%	70.70%	68.90%
R&D & overheads***	-2.81	-2.93	-3.25	-1.90	-3.00	-3.00	-3.00
EBITDA	-2.38	-2.01	-2.63	-1.00	-0.55	-0.10	1.00
EBITDA margin	loss	loss	loss	loss	-16.67%	-2.44%	17.24%
EBITA	-2.53	-2.30	-2.97	-1.20	-1.25	-0.80	0.30
EBITA margin	loss	loss	loss	loss	-37.88%	-19.51%	5.17%
Net finance income	0.00	0.00	-0.01	0.00	0.00	0.00	0.00
PBT (adjusted)	-2.53	-2.30	-2.98	-1.20	-1.25	-0.80	0.30
Exceptional items	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tax	0.35	0.47	0.92	0.30	0.55	0.55	0.55
PAT	-2.18	-1.83	-2.06	-0.90	-0.70	-0.25	0.85
EPS (diluted, adjusted, p)	-2.42	-1.66	-1.64	-0.66	-0.51	-0.18	0.62
DPS (p)	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*May year-end, **December year-end, *** includes £0.13m negative exceptional items 2018
Source: Surface Transforms accounts, Hardman & Co Research estimates

The historical figures represent a business whose income derives principally from retrofit of discs onto performance/track cars and also to "near OEMs". Near OEMs are substantial but less sizable businesses than the global OEMs we refer to as the target market to expose ST to the £2bn (plus) addressable market we see developing.

From the Chairman's Outlook statement released with the results 9 September:

"The Board now has a high degree of confidence in accelerating sales growth, the timing of which now being underpinned by contract awards.

For the twelve months to December 2020 this year will now capture the bulk of the sales of the first contract from OEM 6, and, slightly higher than previously foreseen, development revenues from OEM 5. These combined revenues, together with return to modest growth in Near OEM and retrofit sales, approximate to the point at which the Company expects to achieve positive EBITDA (including tax credit) during the course of the year. These OEM contracts and Near OEM and retrofit sales continue into the year December 2021, a year that will now include the SOP (in the last quarter) of OEM 5, the second contract from OEM 6 and the higher volumes as the Koenigsegg

Surface Transforms

Jesko replaces the Regera. The effect is that revenues are then expected to get to the point where the Company is generating modest levels of cash from operations.

The full combined effect of the contract wins on OEM 5 and OEM 6 are seen in the first full year of production being 2022, whereat the Company is expected to be profitable.”

Balance sheet

On 20 March 2019, 12.30m new shares were placed at 15.5p per share (gross £1.9m).

Note that our cash figure is a net figure. £1.92m cash (pre-debt) was held at end-May 2019. End-May 2019 financial liabilities included £0.9m short-term debt; £0.27m long-term borrowings and £0.2m government grants repayable under specific circumstances.

Balance sheet							
@ 31 May*/December**(£m)	FY17*	FY18*	FY19*	7-month period FY19E**	FY20E**	FY21E**	FY22E**
Net current assets (including cash)	2.53	1.73	2.80	2.60	2.40	2.90	4.20
Shareholders' funds	3.90	5.55	6.96	6.05	5.35	5.10	5.95
Net cash (debt)	1.53	0.62	1.60	1.60	1.20	1.70	3.00
Avg. shares diluted (m)	90.00	110.30	125.20	136.00	136.00	136.00	136.00

*May year-end, **December year-end

Source: Surface Transforms accounts, Hardman & Co Research estimates

Cashflow

The seven-month period to Dec'19 should witness a cashflow neutral position, with a cash inflow from operations. This benefits from, among other contracts, the recently announced £0.4m revenue from OEM1. This should bring in cash (factored) prior to end-Dec'19. We expect a cashflow-positive situation in FY21, assisted by (ongoing) R&D tax inflow and a modest EBITDA-positive figure, including the tax credit. For FY20 and FY21, we expect modest benefits from invoice factoring – if ST deems appropriate. Note that our estimates include a reduction in the ratio of work in progress vs. revenue. The reduction in the ratio is significant but only brings it down to normalised levels for a company of ST's size in 2022E.

Capital expenditure will be required to add a further manufacturing cell as revenue rises above levels estimated for FY22. Current capacity fulfils all sales rates estimated in our forward estimates.

Cashflow							
Year-end May*/December**(£m)	FY17*	FY18*	FY19*	7-month period FY19E**	FY20E**	FY21E**	FY22E**
Cash from operations, net tax	-1.21	-2.17	-2.20	0.20	0.20	0.75	1.55
Capex	-2.07	-2.00	-0.10	-0.20	-0.60	-0.25	-0.25
Interest	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Equity issuance	0.05	3.48	3.30	0.00	0.00	0.00	0.00
Net cashflow	-3.23	-0.69	1.00	0.00	-0.40	0.50	1.30
Depreciation	0.15	0.29	0.40	0.20	0.80	0.70	0.70

* May year-end ** December

Source: Surface Transforms accounts, Hardman & Co Research estimates

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