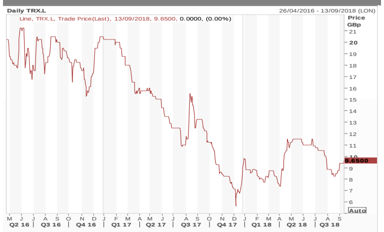
Pharmaceuticals & Biotechnology



Source: Eikon Thomson Reuters

Market data

EPIC/TKR	**TRX**
Price (p)	9.2
12m High (p)	13.3
12m Low (p)	5.6
Shares (m)	1,171.6
Mkt Cap (£m)	107.3
EV (£m)	90.9
Free Float*	27%
Market	AIM

As defined by AIM Rule 26

Description

Tissue Regenix (TRX) is a medical device company focused on regenerative medicine. Patented decellularisation technologies remove DNA, cells and other material from animal/human tissue and bone, leaving scaffolds that can be used to repair diseased or worn-out body parts. Its products have multiple applications.

Company information

CEO	Steve Couldwell
CFO (interim)	Paul Below
Chairman	John Samuel

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www.tissueregenix.com

Key shareholders

Directors	4.3%
Invesco	29.0%
Woodford Inv. Mgt.	26.0%
IP Group	13.8%
Baillie Gifford	4.3%
Directors	4.3%

Diary

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Tissue Regenix

Strategy delivering growth above expectations

TRX has a broad portfolio of regenerative medicine products for the biosurgery, orthopaedics, dental and cardiac markets. The company has two proprietary decellularisation technology platforms, for the repair of tissues and bone. 2017 was a dynamic year for the group, growth being boosted by the acquisition of CellRight Technologies in August 2017. As part of the integration process, management embarked upon a revised strategy to increase sales momentum and market penetration. Interim results ahead of market expectations indicate that the company has made good progress in executing its growth ambitions.

- **Strategy:** To build an international regenerative medicine business with a portfolio of products using proprietary dCELL and BioRinse technology platforms, underpinned by compelling clinical outcomes. TRX is looking to expand its global distribution network, via strategic partnerships, to drive sales momentum.

- **Interims:** Although reported group sales growth of 305% to £5.6m (£1.4m) in 1H'18 looks spectacular, it is biased by the acquisition and impacted by currency. A true reflection of underlying growth is the still impressive 61% growth on a *pro forma* basis, as if CellRight had been acquired on 1 January 2017.

- **EBIT**: Even though a full six months of CellRight costs are included in 1H'18, the focus of the new management team on controlling costs is evident from the modest rise in absolute SG&A spend, such that the underlying EBIT loss was reduced to £4.0m (£5.0m).

- **CellRight:** The integration strategy is already delivering success, with sales in the orthopaedics and dental division (US) growing 46% to $4.5m/£3.2m ($3.1m *pro forma*), well ahead of our forecast of $4.0m/£3.0m.

- **Investment summary:** TRX is building commercial momentum through three value drivers: sales of BioSurgery products in the US; expansion of combined CellRight and TRX technologies in dental, orthopaedics and spine; and preparation for the OrthoPure XT launch in the EU in 2019. Early signs of the benefits derived from CellRight are apparent, which should hasten the time to reach a cash-neutral position and sustainable profitability, now estimated in fiscal 2020.

Financial summary and valuation

Year-end Dec (£m)	*2016	**2016	2017	2018E	2019E	2020E
Sales	0.82	1.44	5.23	11.80	19.50	26.63
EBITDA	-9.86	-10.55	-8.98	-7.75	-2.26	1.94
Underlying EBIT	-10.11	-10.85	-9.69	-8.90	-3.43	0.73
Reported EBIT	-10.24	-11.06	-10.82	-9.90	-3.93	0.23
Underlying PBT	-9.89	-10.74	-9.64	-8.88	-3.42	0.74
Statutory PBT	-10.03	-10.95	-10.77	-9.88	-3.92	0.24
Underlying EPS (p)	-1.26	-1.28	-0.90	-0.69	-0.23	0.12
Statutory EPS (p)	-1.28	-1.30	-1.02	-0.78	-0.27	0.08
Net (debt)/cash	19.91	8.17	16.42	6.42	0.97	0.71
Capital increase	19.02	0.00	37.99	0.00	0.00	0.00
P/E (x)	-	-	-	-	-	-
EV/sales (x)	-	-	17.4	7.7	4.7	3.4

**Year to 31 January. **11 months to 31 December. Source: Hardman & Co Life Sciences Research*

Interim results

TRX'S numbers for the six-month period to the end of June 2018 were the first to include the CellRight acquisition for a complete reporting period. Compared with our forecast sales growth of 33% to £5.1m against a *pro forma* figure for 1H'17, published on 2 August 2018[1], sales grew 61% to £5.6m, significantly beating our expectations. This provides early evidence that the acquisition and the new growth strategy outlined in 2017 are gaining traction.

Sales

- **Group:** All three business areas contributed to growth during 1H'18. On a *pro forma* basis, as if CellRight had been acquired on 1 January 2017, the underlying group sales growth rate was an extremely strong 61% to £5.6m, from an estimated *pro forma* number of £3.9m for 1H'17. Reported growth was 305%.
- **Biosurgery:** Sales for the biosurgery division are derived from the DermaPure range in the US. In 1H'18, they grew 96% to $2.09m/£1.48m ($1.07m/£0.85m). Since launch, TRX has reported consistent half-year on half-year growth in DermaPure sales.
- **Orthopaedics:** Sales from the orthopaedics division increased 46% to $4.53m/£3.21m in 1H'18 compared with a *pro forma* number for CellRight in 1H'17 of $3.1m/£2.5m. Both sub-divisions contributed to this performance, with orthopaedic and dental products generating growth of 51% and 31%, respectively.
- **GBM-V:** Sales through the jv in Germany grew 67% to €1.01m/£0.89m (€0.61m/£0.52m) in 1H'18, driven by an increasing demand for products and by the resolution of some raw material supply issues in 2017.

1H'17 *pro forma* vs. 1H'18

Business unit	1H'17 *pro forma* sales	1H'18	*pro forma* growth
Orthopaedics	$3.1m/£2.5m	$4.5m/£3.2m	+46%
Group	£3.9m	£5.6m	+61%

Pro forma: estimates as if CellRight acquisition made on 1 January 2017
Source: Hardman & Co Life Sciences Research

Underlying EBIT

The acquisition of CellRight not only provided management with the opportunity to seek cost savings through integration, but also allowed the company to build its brand strategy and grow its global distribution network. The margin lost through using distributors is being offset by fast sales growth and lower internal (e.g. commission) costs – this was evident from the SG&A costs in 1H'18, which increased only 22% compared with those in 1H'17, despite the inclusion of CellRight. Our forecast SGA costs included the -£0.5m legal fees – although these were treated as exceptional costs by the company in 1H'18, reported SGA in 1H'18 still beat our forecasts by £0.6m.

Therefore, underlying EBIT losses were £1.4m better than forecast (when excluding the legal fees from SGA) at £4.0m, a 20% improvement on the comparable period.

[1] http://www.hardmanandco.com/docs/default-source/company-docs/tissue-regenix--documents/02.08.18-1h18-preview-organic-plus-inorganic-growth.pdf

This trend is expected to continue, with the company reaching a cash-neutral position and sustainable profitability, anticipated by the end of 2020.

Summary of actual vs. forecast results, 1H'18 vs. 1H'17

Half-year to June (£m)	1H'17 actual	1H'18 actual	Growth	1H'18 forecast	Delta Δ
Biosurgery	0.85	1.48	*96%	1.11	+0.37
Orthopaedics	0.00	3.21	**46%	2.73	+0.48
GBM-V	0.52	0.89	*67%	0.76	+0.13
Group sales	**1.38**	**5.57**	****61%**	**4.60**	**+0.97**
COGS	-0.51	-2.45	382%	-2.20	-0.25
SG&A	-4.43	-5.40	22%	-6.50***	+1.10
R&D	-1.45	-1.75	21%	-1.77	-0.02
Underlying EBIT	**-5.01**	**-4.02**	**+20%**	**-5.87**	**+1.85**
Underlying PBT	**-4.99**	**-4.02**	**+19%**	**-5.86**	**+1.84**
Reported PBT	-5.43	-4.84	+11%	-5.91	+1.07
U/lying basic EPS (p)	**-0.57**	**-0.32**	**+44%**	**-0.47**	**+0.15**
Statutory basis EPS (p)	-0.63	-0.39	+38%	-0.47	+0.08
Net cash	3.61	12.22	-	10.65	+1.57

**CER growth; **CER growth versus pro forma figure;*
****includes £0.5m legal fees (treated as exceptional in reported numbers)*
Source: Hardman & Co Life Sciences Research

Operational update

Biosurgery

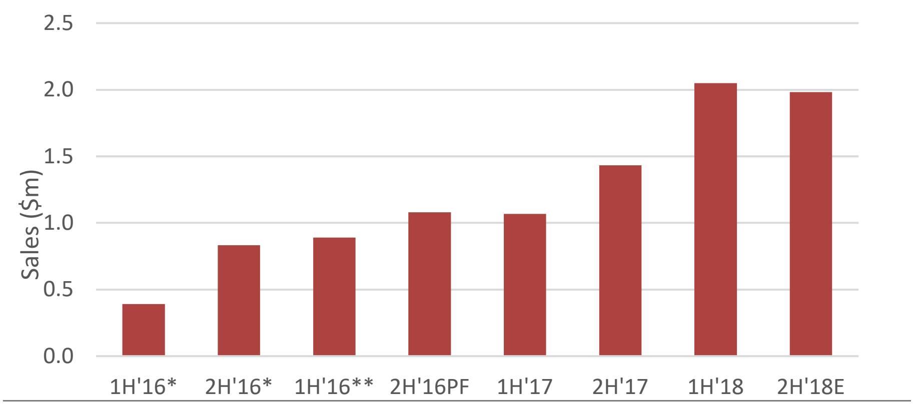
The TRX BioSurgery operating division was rebranded and launched in February 2018 as part of the company's commercial strategy to focus on three operating divisions – the others are orthopaedics (including dental) and cardiac – and to signify the progression of DermaPure from traditional advanced wound care applications to acute surgical applications. This, and the other BioSurgery brands in development, are based on TRX's dCELL soft tissue technology.

DermaPure access increasing

The DermaPure product line was developed originally for advanced wound care. However, surgeons specialising in orthopaedic trauma and urogynaecology have been adopting DermaPure as an innovative solution in these areas. This has been facilitated by an improvement in the range of product sizes, making the product more competitive. As part of the renewed focus on driving sales momentum and market penetration, this growth opportunity is being harnessed through an exclusive partnership with ARMS Medical, a specialist distributer in urogynaecology in the US, made during 1H'18, which did provide a boost to sales.

This has allowed TRX to focus on its direct sales in, and Group Purchasing Organisation (GPO) coverage of, the wound, plastics, orthopaedics and general surgery markets. GPO agreements were strengthened further in 1H'18, with an additional three-year contract signed with Premier, Inc., maintaining TRX's access to the inpatient market. Key is DermaPure's health economic advantages, which centre on its single application in many hospital settings, and which have boosted demand and the division's 96% organic revenue growth. These value advantages were recognised by TRX receiving the 'Supplier Horizon Award' at Premier's Breakthrough conference in June 2018.

DermaPure sales progression



**Year to 31 January; **Year to 31 December*
Source: Hardman & Co Life Sciences Research

Integration with CellRight

The half-year performance was underpinned by the success already made in the integration of CellRight with TRX. Several steps in this process have been completed ahead of schedule, including transfer of DermaPure manufacturing from third-party manufacturing at CTS to the CellRight facility in Texas, from which sales of

DermaPure products have already been achieved. This gives TRX full control of the end-to-end manufacturing process, and the manufacture of additional products in the portfolio. Moreover, process enhancements have been achieved already that have increased the shelf-life of DermaPure from two to three years.

SurgiPure XD

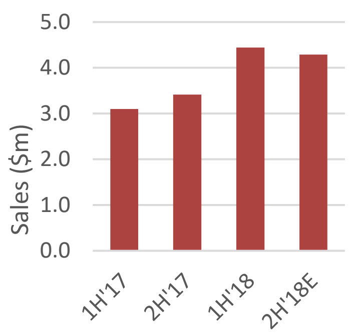
SurgiPure is a reconstructive tissue matrix made from xenograft dermis. It is intended for use as a soft tissue patch for reinforcement of soft tissue, and for surgical repair of tissue membranes. SurgiPure received 510(k) clearance from the FDA. The company has undertaken manufacture of the first commercial batch at the Leeds facility and constructed its commercial roll-out plan for penetration of the US market, ready for launch.

Orthopaedics and Dental

CellRight was acquired on 8 August 2017, adding the BioRinse bone decellularisation platform to the group's existing offering in orthopaedics. The orthopaedics and dental operating division includes, therefore, the dCELL orthopaedics development-stage portfolio (e.g. OrthoPure XT), in addition to the BioRinse orthopaedic and dental range of products.

In terms of the BioRinse portfolio, TRX signed a long-term, multi-year distribution agreement with specialist orthopaedic surgical solutions distributer, Arthrex, in the US, with three products taken under the Arthrex original equipment manufacturer (OEM) brand 'Allosync'. This will increase US surgeons' access to osteobiologic products for use in orthopaedic, spine and foot & ankle procedures.

Orthopaedics sales progression



Source: Hardman & Co Life Sciences Research

Integration with US CellRight

TRX was successful in achieving a Human Tissue Authority (HTA) licence in June 2018, which allows the company to import the BioRinse products into the UK. In order to commercialise these, TRX also signed a distribution agreement with Pennine Healthcare, a specialist orthopaedic distributer based in the UK. It is in discussions with additional partners for other key countries. Together, these provide a foundation for future expansion into EU countries.

The orthopaedics business has made a good start to the year, following some new dental product launches and a smooth integration process, which has resulted in underlying sales increasing 46% compared with *pro forma* sales in 1H'17, and a steady half-year on half-year progression.

Upcoming events

In 2H'18, the first sales look set to be achieved as part of the Pennine distribution agreement in the UK, and management expects to announce further agreements in Europe. TRX will be completing the OrthoPure XT trial with two-year follow-up data.

For dental, the company expects to announce a significant US distribution partner, and is looking for other market opportunities through geographical expansion.

Cardiac (GBM-V)

GBM-V, Rostock, Germany

Source: Tissue Regenix

The JV in Germany is continuing to make very good progress, driven largely by solid demand for cornea tissue. Underlying sales grew 67% in 1H'18 to £0.9m (£0.5m). GBM-V is a non-profit organisation, and any profits generated on the marketing side will be re-invested into other parts of the business – for example into any required capital expenditure.

The investment will be used to support a number of events in the next two years. Notable among these will be a regulatory submission to obtain a manufacturing licence for CardioPure in 2019, towards marketing authorisation in 2020.

News flow

- **OrthoPure XT data:** Two-year clinical data for OrthoPure XT are expected by the end of this month (September 2018), which will strengthen the application for CE mark in the EU, anticipated to be submitted by the end of 2018. Commercialisation is planned for 1H'19.
- **SurgiPure launch:** Now that 510(k) clearance has been achieved, a 'soft' launch in the US for hernia repair via the biosurgery division will be initiated imminently.
- **Further strategic partnerships:** In line with the expected expansion of coverage within countries and additional country launches, further strategic partnership agreements are expected within the next six months.
- **New CFO**: Gareth Jones will join the company in 4Q'18.
- **DermaPure clinical data programme:** A 100 patient prospective observational clinical trial for DermaPure in orthopaedic trauma and a second trial in urogynaecology with ARMS medical are under consideration.
- **Cash breakeven**: The company is committed to achieving breakeven in 2020. The acceleration of revenue growth will be supported by the ongoing efficiency initiatives within the R&D portfolio and BioSurgery infrastructure, and at the Leeds operational site with respect to manufacturing enhancements.
- **Cardiac**: Marketing authorisation is on track for 2020, with regulatory submission for a manufacturing licence for CardioPure at the GBM-V tissue bank expected in 2019.

Financial forecasts

Summary – half years

- **Sales:** Steady half-year on half-year group sales growth, driven by all business units, including in the US, the GBM-V tissue bank in Europe, and now Orthopaedics in the US (CellRight).
- **Orthopaedics:** Currently, all sales for the orthopaedics business are in the US. 2H'17 contains only five months of CellRight sales, which alters the reported half-year growth pattern.
- **SG&A:** A full six months of CellRight costs are included in 1H'18. The EBITDA loss temporarily increases in 2H'18, due to ongoing integration costs.

Financial summary: half-year analysis

Year-end Dec (£m)	1H'17	2H'17	1H'18	2H'18E
GBP:USD	1.251	1.327	1.386	1.192
Biosurgery	0.85	1.08	1.48	1.66
Orthopaedics	0.00	2.17	3.21	3.61
GBM-V	0.52	0.61	0.89	0.95
Group sales	**1.38**	**3.86**	**5.57**	**6.23**
COGS	-0.51	-2.12	-2.45	-2.71
Gross profit	**0.87**	**1.74**	**3.12**	**3.52**
Gross margin	63.1%	45.1%	56.0%	56.5%
SG&A	-4.43	-5.18	-5.40	-6.15
R&D	-1.45	-1.24	-1.75	-2.25
Underlying EBITDA	**-4.80**	**-4.41**	**-3.47**	**-4.27**
Depreciation	-0.21	-0.27	-0.28	-0.28
Amortisation	0.00	0.00	-0.27	-0.33
Other income	0.00	0.00	0.00	0.00
Underlying EBIT	**-5.01**	**-4.68**	**-4.02**	**-4.88**
Share-based costs	-0.14	0.11	-0.21	-0.29
Exceptional items	-0.30	-0.80	-0.50	0.00
Statutory operating profit	-5.44	-5.37	-4.74	-5.17
Net interest	0.00	0.00	0.00	0.00
Other	0.02	0.03	0.00	0.02
Pre-tax profit	**-4.99**	**-4.65**	**-4.02**	**-4.86**
Extraordinary items	0.00	0.00	0.00	0.00
Reported pre-tax	-5.43	-5.34	-4.84	-5.04
Tax payable/credit	0.66	0.66	0.31	0.66
Underlying net income	**-4.33**	**-3.99**	**-3.72**	**-4.20**
Statutory net income	-4.77	-4.68	-4.54	-4.38
Ordinary 0.5p shares:				
Weighted average (m)	760.7	1,080.3	1,171.5	1,170.8
Underlying basic EPS (p)	**-0.57**	**-0.37**	**-0.32**	**-0.36**
Statutory basic EPS (p)	-0.63	-0.43	-0.39	-0.37
Net cash	**3.61**	**16.42**	**12.22**	**6.42**

Source: Hardman & Co Life Sciences Research

Profit & Loss

- **Gross margin:** There will be volatility over the forecast period. On the one hand, underlying costs will initially rise because of CellRight and GBM-V, but, countering this, DermaPure margins are on a rising trend.
- **SG&A:** In the short term, administration costs will rise, with CellRight included for a full 12 months in 2018 and aligning senior management remuneration packages. In addition, a reduction in in-house salesman commissions on DermaPure will take time to adjust fully.

Profit & Loss account

Year-end Dec (£m)	*2016	**2016	2017	2018E	2019E	2020E
GBP:USD	1.523	1.347	1.289	1.289	1.289	1.289
Sales	**0.82**	**1.44**	**5.23**	**11.80**	**19.50**	**26.63**
COGS	-0.15	-0.73	-2.63	-5.16	-7.86	-10.55
Gross profit	**0.66**	**0.71**	**2.61**	**6.64**	**11.65**	**16.08**
Gross margin	81.1%	49.2%	49.8%	56.3%	59.7%	60.4%
SG&A	-7.09	-8.44	-9.61	-11.55	-11.58	-12.05
R&D	-3.68	-3.13	-2.69	-4.00	-3.50	-3.30
Underlying EBITDA	**-9.86**	**-10.55**	**-8.98**	**-7.75**	**-2.26**	**1.94**
Depreciation	-0.25	-0.30	-0.48	-0.56	-0.58	-0.60
Amortisation	0.00	0.00	-0.23	-0.60	-0.60	-0.60
Other income	0.00	0.00	0.00	0.00	0.00	0.00
Underlying EBIT	**-10.11**	**-10.85**	**-9.69**	**-8.90**	**-3.43**	**0.73**
Share-based costs	-0.14	-0.21	-0.03	-0.50	-0.50	-0.50
Exceptional items	0.00	0.00	-1.10	-0.50	0.00	0.00
Statutory operating profit	-10.24	-11.06	-10.82	-9.90	-3.93	0.23
Net interest	0.21	0.11	0.05	0.02	0.01	0.00
Pre-tax profit	**-9.89**	**-10.74**	**-9.64**	**-8.88**	**-3.42**	**0.74**
Extraordinary items	0.00	0.00	0.00	0.00	0.00	0.00
Reported pre-tax	-10.03	-10.95	-10.77	-9.88	-3.92	0.24
Tax payable/credit	0.53	1.03	1.35	0.80	0.70	0.66
Underlying net income	**-9.37**	**-9.71**	**-8.29**	**-8.08**	**-2.72**	**1.40**
Statutory net income	-9.50	-9.92	-9.42	-9.08	-3.22	0.90
Ordinary 0.5p shares:						
Period-end (m)	760.1	760.1	1,171.0	1,171.7	1,172.7	1,173.7
Weighted average (m)	743.2	760.1	920.5	1,171.2	1,172.2	1,173.2
Fully-diluted (m)	784.7	806.6	960.8	1,211.5	1,212.5	1,213.5
Underlying basic EPS (p)	**-1.26**	**-1.28**	**-0.90**	**-0.69**	**-0.23**	**0.12**
Statutory basic EPS (p)	-1.28	-1.30	-1.02	-0.78	-0.27	0.08
U/l fully-diluted EPS (p)	**-1.19**	**-1.20**	**-0.86**	**-0.67**	**-0.22**	**0.12**
Stat. fully-diluted EPS (p)	-1.21	-1.23	-0.98	-0.75	-0.27	0.07
DPS (p)	0.0	0.0	0.0	0.0	0.0	0.0

**Year to 31 January, **11 months to 31 December*
Source: Hardman & Co Life Sciences Research

Balance sheet

- **R&D:** A modest amount of R&D investment in products that have received regulatory approval is capitalised and included in intangible assets, which will then be amortised in line with IAS38 once the product is launched.
- **Capitalised R&D:** Our stated capitalised R&D in the balance sheet is to allow for the calculation of ROIC, which is based on NOPLAT divided by invested capital, both of which require written-off R&D to be added back and amortised.
- **Future funding:** Forecasts simply show the effect of the cashflow statement on the cash position. At the end of fiscal 2019E, there appears to be a modest (ca. £0.97m) net cash position, which falls to ca.£0.71m in fiscal 2020E. In the event that there is good sales traction, management might take on some debt to fund the working capital requirements. On the other hand, if progress is very rapid and there needs to be additional investment in manufacturing capacity, then it is likely that a further capital increase will be sought. At this stage, we believe management will retain as much flexibility as possible.

Balance sheet

@31 December (£m)	*2016	**2016	2017	2018E	2019E	2020E
Shareholders' funds	21.24	11.54	39.52	30.44	27.22	28.12
Cumulated goodwill	0.00	0.00	0.00	0.00	0.00	0.00
Total equity	21.24	11.54	39.52	30.44	27.22	28.12
Share capital	3.80	3.80	5.86	5.86	5.86	5.87
Reserves	17.44	7.74	33.67	24.58	21.36	22.25
Capitalised R&D	7.45	9.24	10.21	10.45	11.59	11.92
Long-term debt	0.00	0.00	0.00	0.00	0.00	0.00
Short-term loans	0.00	0.00	0.00	0.00	0.00	0.00
less: Cash	19.91	8.17	16.42	6.42	0.97	0.71
Invested capital	**8.78**	**12.60**	**34.76**	**35.30**	**38.67**	**40.16**
Fixed assets	0.90	1.09	2.99	2.93	2.86	2.85
Intangible assets	0.00	0.55	19.31	20.76	22.22	22.22
Capitalised R&D	7.45	9.24	10.21	10.45	11.59	11.92
Inventories	0.06	0.66	2.87	2.44	3.53	4.83
Trade debtors	*0.40*	*0.43*	*0.85*	*1.42*	*2.34*	*3.20*
Other debtors	*1.93*	*2.70*	*3.32*	*3.02*	*2.52*	*2.52*
Tax liability/credit	*-0.07*	*-0.15*	*-0.20*	*-0.20*	*-0.30*	*-0.34*
Trade creditors	*-0.50*	*-0.62*	*-1.02*	*-1.58*	*-1.90*	*-2.28*
Other creditors	*-1.39*	*-1.30*	*-3.56*	*-4.54*	*-4.19*	*-4.76*
Debtors less creditors	0.37	1.07	-0.61	-1.89	-1.53	-1.67
Invested capital	**8.78**	**12.60**	**34.76**	**35.30**	**38.67**	**40.16**
Net cash/(debt)	**19.91**	**8.17**	**16.42**	**6.42**	**0.97**	**0.71**

**@31 January; **11 months to 31 December*
Source: Hardman & Co Life Sciences Research

Cashflow

- **Working capital:** The working capital requirement has settled down well following the acquisition of CellRight. Forecasts suggest that there is a small working capital requirement each year, reflecting the growth of the company.
- **Amortisation:** The amortisation charge for the first five months of CellRight ownership was £0.23m, which will rise to £0.6m on an annualised basis.
- **Operating cashflow:** Forecasts suggest that operational cashflow trends towards neutral in the forecast period, in line with management's aim to reach cashflow breakeven by 2020.
- **Funding:** As stated earlier, forecasts show the cash requirement over the next three years. Management is retaining the flexibility to fund this requirement, either by debt, or, if business is very strong and manufacturing investment is needed, by a capital increase.

Cashflow

Year-end Dec (£m)	*2016	**2016	2017	2018E	2019E	2020E
Underlying EBIT	-10.11	-10.85	-9.69	-8.90	-3.43	0.73
Depreciation	0.25	0.30	0.48	0.56	0.58	0.60
Amortisation	0.00	0.00	0.23	0.60	0.60	0.60
Inventories	*-0.03*	*-0.60*	*-0.50*	*-0.07*	*-1.09*	*-1.29*
Receivables	*-0.60*	*-0.09*	*-0.78*	*-0.57*	*-0.92*	*-0.86*
Payables	*0.86*	*0.11*	*0.04*	*0.36*	*0.32*	*0.38*
Change in working cap.	0.24	-0.58	-1.25	-0.28	-1.70	-1.77
Other	0.00	0.00	0.00	0.00	0.00	0.00
Company op. cashflow	**-9.63**	**-11.13**	**-11.33**	**-8.52**	**-3.96**	**0.17**
Net interest	0.21	0.11	0.05	0.02	0.01	0.00
Tax paid/received	0.75	0.32	1.54	0.85	0.80	0.50
Operational cashflow	**-8.67**	**-10.70**	**-9.74**	**-7.65**	**-3.14**	**0.67**
Capital expenditure	-0.71	-0.49	-0.13	-0.50	-0.50	-0.60
Sale of fixed assets	0.00	0.00	0.00	0.00	0.00	0.00
Free cashflow	**-9.38**	**-11.19**	**-9.87**	**-8.15**	**-3.64**	**0.07**
Dividends	0.00	0.00	0.00	0.00	0.00	0.00
Acquisitions	0.00	0.00	-19.95	-1.46	-1.46	0.00
Other investments	0.00	-0.55	-0.09	-0.40	-0.35	-0.33
Cashflow after invests.	**-9.38**	**-11.74**	**-29.91**	**-10.01**	**-5.45**	**-0.26**
Share repurchases	0.00	0.00	0.00	0.00	0.00	0.00
Share issues	19.02	0.00	37.99	0.00	0.00	0.00
Currency effect	0.00	0.00	0.17	0.00	0.00	0.00
Change in net debt	**9.65**	**-11.74**	**8.25**	**-10.01**	**-5.45**	**-0.26**
Opening net cash	10.26	19.91	8.17	16.42	6.42	0.97
Closing net cash	**19.91**	**8.17**	**16.42**	**6.42**	**0.97**	**0.71**
Hardman FCF/share (p)	-1.17	-1.41	-1.06	-0.65	-0.27	0.06

**Year to 31 January, **11 months to 31 December*
Source: Hardman & Co Life Sciences Research

Changes to forecasts

- **Operating divisions:** Sales from all three operating divisions were above our expectations for 1H'18. Since both the biosurgery and orthopaedics divisions were affected by stocking orders on signing new distribution agreements in 1H'18, we have not altered our forecasts for the full year for these divisions. We have, however, lifted our full-year forecasts for the GBM-V division, from €2.00m/£1.77m to €2.10m/£1.84m.
- **Sales:** The impact from the adjustment to our GBM-V sales forecasts and updating the U$:£ exchange rate is a modest uplift on our FY'18 group sales forecasts by 4.6% to 11.8m. The improvement knocks through to sales in future years within the forecast period.
- **EBIT:** The above results in an improvement in our FY18 EBIT forecast by 16.3% to -£8.9m, which is further affected by the decrease in our expectations for SGA costs in the next two years.

Changes to forecasts

Year-end Dec	**2017**	**----- 2018E -----**		***Change***	**----- 2019E -----**		***Change***
(£m)	**actual**	***Old**	**New**	*%*	***Old**	**New**	*%*
Sales	5.23	11.28	11.80	*4.6%*	18.68	19.50	*4.4%*
COGS	-2.63	-5.13	-5.16	*0.6%*	-7.80	-7.86	*0.8%*
SG&A	-9.61	-12.78	-11.55	*-9.6%*	-12.82	-11.58	*-9.7%*
Underlying EBIT	**-9.69**	**-10.63**	**-8.90**	*-16.3%*	**-5.43**	**-3.43**	*-36.8%*
Stat. operating profit	-10.82	-10.73	-9.90	*-7.7%*	-5.52	-3.93	*-28.8%*
Pre-tax profit	**-9.64**	**-10.60**	**-8.88**	*-16.2%*	**-5.42**	**-3.42**	*-36.9%*
U/lying EPS (p)	-0.86	-0.84	-0.69	*-17.9%*	-0.40	-0.23	*-42.5%*
Free cashflow	-9.87	-10.73	-8.15	*-24.0%*	-5.53	-3.64	*-34.2%*
Net (debt)/cash	**16.42**	**5.28**	**6.42**	*21.6%*	**-2.14**	**0.97**	*-145.3%*

**From Hardman & Co Life Sciences research report published 2 August 2018*

Source: Hardman & Co Life Sciences Research

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