For Immediate Release

5 September 2019

Genus plc

(‘Genus’, the ‘Company’ or the ‘Group’)

PRELIMINARY RESULTS FOR THE YEAR ENDED 30 JUNE 2019

CONTINUED STRATEGIC PROGRESS AND GOOD PERFORMANCE

Genus, a leading global animal genetics company, announces its preliminary results for the year ended 30 June 2019.

		Actual currency		Constant currency[2]
Year ended 30 June	**2019**	**2018**	**Movement**	**Movement**
Adjusted results[1]	**£m**	**£m**	**%**	**%**
Revenue	**488.5**	470.3	4	3
Operating profit incl. JVs excl. gene editing	**72.2**	68.1	6	6
Operating profit incl. JVs	**64.9**	63.1	3	3
Profit before tax	**61.0**	58.5	4	5
Basic earnings per share (pence)	**73.2**	75.9	(4)	(3)
Statutory results				
Revenue	**488.5**	470.3	4	
Operating profit	**8.7**	8.2	6	
Profit before tax	**9.9**	7.8	27	
Profit after tax	**6.7**	41.6	(84)	
Basic earnings per share (pence)	**12.4**	69.7	(82)	
Dividend per share (pence)	**27.7**	26.0	7	

[1] Adjusted results are before net IAS 41 valuation movement on biological assets, amortisation of acquired intangible assets, share-based payment expense and exceptional items. Adjusted results are the alternative performance measures used by the Board to monitor underlying performance at a Group and operating segment level. They are consistently applied throughout. For more information on Alternative Performance Measures, see note 1 to the Condensed Financial Statements.

[2] Constant currency percentage movements are calculated by restating the results for the year ended 30 June 2019 at the average exchange rates applied to adjusted operating profit for the year ended 30 June 2018.

2019 Highlights

- Genus achieved continued strategic progress and delivered good operational and financial performance in 2019, despite the challenging environment in China caused by the rapid spread of African Swine Fever ('ASF').

Financial Highlights

- Revenue of £488.5m increased by 4% (3% in constant currency) with strong bovine revenue, up 7% in constant currency, primarily driven by sexed semen sales growth of 40%. Porcine revenue was stable despite fewer animal shipments in China as a result of ASF, however strategically important porcine royalty revenue increased by 7% in constant currency.

- Adjusted operating profit including joint ventures and excluding gene editing increased by 6% in both constant and actual currency, led by strong growth in ABS, up 15% in constant currency, while R&D investment was increased as planned. Adjusted profit before tax increased 4% to £61.0m (5% in constant currency).

- Statutory profit before tax of £9.9m (2018: £7.8m) was impacted by non-cash fair value movements in biological assets and a one-off Guaranteed Minimum Pension ('GMP') equalisation charge in respect of legacy pension schemes.

- Adjusted basic earnings per share[1] decreased 4% to 73.2p (down 3% in constant currency) primarily as a result of a £2.4m tax credit in the prior year following US tax reforms. Statutory basic earnings per share decreased 82% to 12.4p, reflecting significant prior year non-cash deferred tax credits relating to biological asset value arising from the US tax reforms.

- Free cash flow[2] of £10.0m (2018: £24.3m) included a planned increased investment in capital expenditure and genetic inventory to meet growth objectives over the short and medium term. Cash conversion[2] was as expected at 84% (2018: 101%), while cash inflows from joint ventures were higher at £3.4m (2018: £2.8m).

- Net debt to EBITDA[2] of 1.0x (2018: 1.4x), with net debt at 30 June 2019 of £79.6m (2018: £108.5m) following an equity placement of £66.5m and acquisitions and investments of £22.7m (2018: £1.8m).

- Reflecting the Board's continuing confidence in the Group's prospects, it is recommending a final dividend of 18.8p per share, to give a total dividend of 27.7p per share, up 7% and well covered by adjusted earnings at 2.6 times (2018: 2.9 times).

Operational Highlights[3]

- ABS achieved another strong performance, with operating profit up 15%, continued high growth in Sexcel®, Genus' high-fertility sexed genetics product produced with IntelliGen® technology, and rapid growth in the Group's NuEra® differentiated beef genetics
  - Volume growth of 6%, with sexed genetics up 42% and beef up 22%
  - Operating profit growth was achieved in all regions, particularly in North America, up 40%, as more customers choose Genus' high-fertility Sexcel offering and beef genetics, supported by NuEra beef genetics
  - IntelliGen production extended to three new sites around the world, and a number of new customers were secured

- Robust operating profit growth of 4% in PIC, despite the impact of ASF across China. Operating profit growth of 10% excluding China
  - Royalty revenue up 7%, with growth in all regions
  - Stable overall volumes, with growth of 5% excluding China, driven by North America, Latin America and Spain. 82% (2018: 76%) of volumes now under royalty
  - Strong operating profit growth in Latin America of 23% and Europe of 30%, with encouraging customer wins from our strategic collaboration with Møllevang

- Research and Development ('R&D') investment increased by 13% as planned, primarily from continued investment in gene editing and the IntelliGen platform
  - Continued progress with the Porcine Reproductive and Respiratory Syndrome virus ('PRRSv') development programme, with increased numbers of edited pigs produced and constructive engagement with the US Food and Drug Administration ('FDA')
  - Strategic relationship initiated with Beijing Capital Agribusiness ('BCA') to fund and develop the PRRSv programme in China
  - Further strengthened our porcine genetic product portfolio by integrating Møllevang's genetics
  - Continued leadership in the dairy Holstein breed with 42 of the top 100 genomic bulls in the US$ Net Merit rankings, driven by the success of the De Novo breeding programme

- Changes to the Genus Executive Leadership Team ('GELT')
  - Appointment of Stephen Wilson, currently Group Finance Director, as Chief Executive with effect from the close of business on 13 September 2019, following the resignation of Karim Bitar
  - Initiation of an external search for a new Group Finance Director and appointment of Janet Duane, currently Group Financial Controller, on an interim basis
  - Dr Elena Rice appointed as Chief R&D and Scientific Officer, following Dr Jonathan Lightner's retirement

Commenting, Karim Bitar, Chief Executive said:

"2019 was another year of good strategic and financial progress for Genus, enabling the Group to report record adjusted profit before tax for the period. Genus PIC achieved strong growth in Latin America and Europe, partly offset as expected by challenging conditions in China caused by the spread of ASF. ABS delivered a strong performance and is continuing to benefit from the strong growth of Sexcel and NuEra.

"Genus continues to make progress with its PRRSv resistance programme, both in the US through ongoing constructive engagement with the FDA and also through the collaboration with BCA in China.

"Genus is well placed to continue to grow and benefit from the execution of our proven strategy. Genus has strength in depth and under Stephen Wilson's leadership, supported by the Genus' Executive Leadership team, I am confident that Genus will continue to prosper and fulfil its vision of 'pioneering animal genetic improvement to help nourish the world'."

Also commenting, Stephen Wilson, Chief Executive designate said:

"We have a clear strategy and business model that is yielding good results. Having been with Genus for a number of years, I am excited at the prospect of leading our company and continuing to execute on our strategic and financial objectives.

"We expect to make further strategic and financial progress in FY20, in line with our expectations. Reflecting the Board's continued confidence in Genus' future prospects, we are recommending a final dividend of 18.8p per share, to give a total dividend of 27.7p per share, up 7%."

[1] For definitions of adjusted basic earnings per share see note 6 to the Condensed Financial Statements.
[2] For definitions of free cash flow, cash conversion and EBITDA, see the Financial Review.
[3] Based on adjusted results including joint venture income, less non-controlling interest in constant currency.

An analyst meeting will be held at 8.30am today at Buchanan's offices (107 Cheapside, London EC2V 6DN).

A live webcast will be available to those unable to attend this meeting in person. If you would like to connect to the webcast, please log onto the following web address approximately 10 minutes before 8.30am: https://webcasting.buchanan.uk.com/broadcast/5d381d3748a6d52f84f6aff9

This announcement is available on the Genus website, www.genusplc.com.

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About Genus

Genus creates advances to animal breeding and genetic improvement by applying biotechnology and sells added value products for livestock farming and food producers. Its technology is applicable across livestock species and is currently commercialised by Genus in the dairy, beef and pork food production sectors.

Genus' worldwide sales are made in over seventy-five countries under the trademarks 'ABS' (dairy and beef cattle) and 'PIC' (pigs) and comprise semen, embryos and breeding animals with superior genetics to those animals currently in farms. Genus's customers' animals produce offspring with greater production efficiency, and quality, and use these to supply the global dairy and meat supply chains.

The Group's competitive edge has been created from the ownership and control of proprietary lines of breeding animals, the biotechnology used to improve them and its global supply chain, technical service and sales and distribution network.

With headquarters in Basingstoke, United Kingdom, Genus companies operate in over twenty-five countries on six continents, with research laboratories located in Madison, Wisconsin, USA.

Chief Executive's Review

Sadly this is my final report to you as Chief Executive. During my eight years at Genus, we have taken significant strides towards transforming the Group into a truly global agricultural biotechnology pioneer, focused on animal genetic improvement. I am pleased to be handing over a business that is in good shape and is in a strong position to achieve continued growth.

Group Performance

The Group achieved a good performance in FY19, which was in line with expectations. In constant currency terms revenue increased by 3%, adjusted profit before tax was 5% higher and adjusted operating profit rose by 6%, excluding gene editing costs. This was the result of challenging conditions in China caused by the rapid spread of ASF. Excluding the impact of ASF, our results for the year would have been ahead of our double-digit medium term growth objective. In actual currency terms, revenue was up 4% and adjusted profit before tax increased by 4%.

Genus PIC increased its adjusted operating profit including joint ventures by 4% in constant currency. The business was affected by the outbreak of ASF across China, causing volumes in the country to fall by 50% resulting in a £5m operating profit reduction in China, compared with FY18. This impact was more than offset by strong growth in both Latin America and Europe. Royalty revenue and royalty volumes continued to grow at 7%, with royalties now representing 82% (2018: 76%) of total volumes.

ABS continued its turnaround, with the plans we implemented to revitalise the business delivering the anticipated results. Volume growth was 6% and operating profit was up 15% in constant currency. Sexcel continued to be strongly adopted by customers, with sexed genetics volumes being 42% higher in FY19 while maintaining price levels. We also achieved rapid growth in NuEra, our differentiated beef genetics, with volumes rising by 22%.

Research and development investment increased by 13% as planned, as we continued to invest in gene editing and IntelliGen. We made further progress with the PRRSv programme and signed a strategically important collaboration in China. We are also delivering strong results in our dairy, beef and porcine genomic selection breeding programmes.

Strategic Progress

The most significant strategic development in the year was our porcine strategic collaboration in China, which we announced in May 2019 and expect to close in the second half of the calendar year, following customary Chinese regulatory approvals. This is a very important step in our PRRSv resistance commercialisation programme, validating our technology and providing us with a very capable partner to work on PRRSv resistance in China.

Our partner in the collaboration is BCA, which owns a leading Chinese animal protein genetics business and has a deep understanding of the country's porcine sector. CITIC Agriculture, a very reputable and influential state-owned investor in China, is a key shareholder and adviser to BCA.

BCA will establish and fund a collaboration-specific entity ('BCA Future Bio-Tech') which will use Genus' intellectual property and know how to pursue the PRRSv resistance regulatory and development work in China. In return, we will receive US$20m, after meeting certain milestones in the development programme. BCA will fund the development work in China, which is expected to cost several tens of millions of US dollars. Once regulatory approval is received, Genus and BCA will form a joint venture which will include PIC's existing operations in China. Genus will own 49% of this business and will receive between US$120m and US$160m in consideration for our existing operations. We will also receive royalties on the sales of PRRSv-resistant pigs in China.

Genus and BCA also plan to accelerate the use of PIC genetics in China, through the phased integration of PIC genetics into BCA's breeding facilities and their planned major expansion, in response to the opportunities we have due to the breeding stock shortage in China caused by ASF.

At the very start of the year, we formed a strategic partnership with Møllevang, one of Denmark's leading pig-breeding companies. We are pleased with the traction we are seeing, with market share gains and customer wins from new products in line with our expectations.

Sexed genetics are a key part of the growth strategy in ABS. In addition to the rapid uptake of Sexcel by our customers, we successfully grew the IntelliGen business during the year, winning new customers and starting production in three new locations around the world.

People

Genus has an outstanding group of talented and committed people and leading them has been one of the privileges of my career. I want to thank all of my colleagues for their important contribution to making Genus the world-leading business it is today.

The strength of the leadership team is one reason I have such confidence in Genus's prospects over the coming years. I am delighted that Stephen Wilson has been appointed to succeed me as Chief Executive to continue executing the strategy we have jointly developed.

There was one change to GELT in FY19, with Dr Jonathan Lightner retiring as Chief Scientific Officer and Head of R&D, after a distinguished career which included six years at Genus. I am delighted that Dr Elena Rice joined us in July 2019 to take up this critical role. Elena was previously at Bayer and has deep expertise in running R&D programmes, regulatory science and portfolio management in crop genetics. She has led the development and introduction of new genetic improvement technologies including gene editing projects. She will help us continue to enhance genetic improvement in our chosen species.

Outlook

Genus is a strong business, with a proven strategy and business model, which positions us for ongoing growth in both ABS and PIC. ASF will continue to affect PIC volumes in China in the short term and while we foresee some improvement in FY20, fuller restocking is likely in FY21. Notwithstanding this, and in line with the Board's expectations, Genus expects to deliver further strategic and financial progress in FY20.

Karim Bitar

Chief Executive

4 September 2019

Financial and Operating Review

Financial Review

In the year ended 30 June 2019, Genus achieved good financial results despite challenging conditions in China caused by the rapid spread of ASF in the pig industry. Revenue growth was 3% in constant currency (4% in actual currency) and adjusted operating profit growth including joint ventures was 3% in both constant and actual currencies, after our planned increase in investment in R&D. Excluding gene editing costs, adjusted operating profit increased by 6% in both constant and actual currencies. Adjusted profit before tax was up 4% (5% in actual currency) despite profits in the Chinese porcine business being £5m lower as a result of ASF.

On a statutory basis, profit before tax was £9.9m (2018: £7.8m). The difference between statutory and adjusted profit before tax was primarily due to non-cash items, including a charge of £16.1m in respect of legacy pension schemes due to the recent High Court decision on the Lloyd's Bank case related to GMP equalisation (see below for further details) and a reduction of £14.7m (2018: £28.7m) in the net IAS 41 biological asset fair value. This was primarily a result of lower bovine biological asset fair values, consistent with trends over the last few years. Statutory earnings per share were 82% lower, with the prior year benefiting from a £32.5m non-cash reduction in Genus's deferred tax liabilities as a result of tax reforms in the US. Genus continues to use adjusted results as its primary measures of financial performance as they better reflect the Group's underlying progress.

The effect of exchange rate movements on the translation of our overseas profits was to reduce the Group's adjusted profit before tax for the year by £0.3m compared with 2018, with the stronger Dollar against Sterling more than offset by weakness in the Brazilian Real. Unless stated otherwise, the financial and operating reviews quote constant currency adjusted growth rates.

Revenue

Revenue increased by 3% in constant currency (4% in actual currency) to £488.5m (2018: £470.3m). In PIC, revenue was stable in constant currency (up 2% in actual currency), with our strategically important royalty revenue up 7%, with growth in all regions. This was offset by significantly lower breeding stock sales in China, as ASF caused customer stocking delays and cancellations. In ABS, revenues grew 7% in constant currency (6% in actual currency), with all regions making a positive contribution. Sexed genetics revenue growth of 40% was ahead of our expectations due to continued strong uptake of Sexcel, our high-fertility sexed genetics product.

Adjusted Operating Profit Including Joint Ventures

		Actual currency		Constant currency
	2019	**2018**	**Movement**	**Movement**
Adjusted Profit Before Tax*	**£m**	**£m**	**%**	**%**
Genus PIC	**100.6**	94.8	6	4
Genus ABS	**29.9**	26.1	15	15
R&D	**(54.7)**	(46.8)	(17)	(13)
Central costs	**(10.9)**	(11.0)	1	4
Adjusted operating profit incl. JVs	**64.9**	63.1	3	3
Net finance costs	**(3.9)**	(4.6)	15	15
Adjusted profit before tax	**61.0**	58.5	4	5

* Includes share of adjusted pre-tax profits of joint ventures and removes share of adjusted profits of non-controlling interests.

Adjusted operating profit including joint ventures was £64.9m (2018: £63.1m), up 3% in both actual and constant currencies. Within this, Genus's share of adjusted joint venture operating profits was higher at £7.6m (2018: £6.2m), primarily due to strong results in the PIC Agroceres JV in Brazil and amounts attributable to non-controlling interests reduced to £0.4m (2018: £0.8m). Our gene editing investment, which is primarily focused on creating resistance in pigs against the devastating PRRSv disease, increased to £7.3m (2018: £5.0m) as we increased the number of edited animals produced. Excluding this investment, adjusted operating profit increased by 6% in constant currency to £72.2m (2018: £68.1m).

PIC had a robust year with adjusted operating profit including joint ventures up 4%, despite a profit decline in China of approximately £5m caused by ASF. Volumes were stable, with continued growth in royalty contract volumes, particularly in Latin America, offset by a significant decline in breeding stock volumes in China. The European business transformation continues to drive strong results, with another high double-digit operating profit growth of 30%, with the integrations of Møllevang and Hermitage continuing to create supply chain synergies and superior genetic offerings for our customers.

ABS performed strongly with adjusted operating profit less non-controlling interest increasing 15%, with volume growth of 6%. Sexcel continued to demonstrate that it is the sexed product of choice for progressive dairy farmers, driving overall sexed volume growth of 42% and with lower production costs than its predecessor. Strong operating profit growth was achieved across all regions with growth strongest in North America, up 40%, where there was a pronounced shift in the industry to using sexed genetics and beef on dairy genetics, which aligns to our market leading offerings.

As planned, R&D investment increased by 13%, primarily from a 42% increase in gene editing investment as we expanded the number of gene edited pigs produced and continued positive engagement with the

FDA. To maintain leadership in genetics across both porcine and bovine, we increased investment in bovine product development, including in our IntelliGen technology, by 13% and porcine product development by 5%.

Statutory Profit Before Tax

The table below reconciles adjusted profit before tax to statutory profit before tax:

	2019	2018
	£m	£m
Adjusted Profit Before Tax	**61.0**	58.5
Operating profit attributable to non-controlling interest	**0.4**	0.8
Net IAS 41 valuation movement on biological assets in JVs and associates	**(1.1)**	(0.5)
Tax on JVs and associates	**(1.4)**	(1.5)
Adjusting items:		
Net IAS 41 valuation movement on biological assets	**(14.7)**	(28.7)
Amortisation of acquired intangible assets	**(9.5)**	(9.5)
Share-based payment expense	**(3.0)**	(5.4)
Exceptional items	**(21.8)**	(5.9)
Statutory Profit Before Tax	**9.9**	7.8

Our statutory profit before tax was £9.9m (2018: £7.8m), with the impact of the GMP equalisation of £16.1m (2018: £nil) in exceptional items largely offset by the reduction in the non-cash fair value net IAS 41 biological asset movement, which was £14.7m against £28.7m in the prior year. Within this, there was a £1.9m reduction (2018: £5.3m uplift) in porcine biological assets and a £12.8m reduction (2018: £34.0m reduction) in bovine biological assets, due to a variety of fair value model estimate changes. Share-based payment expense was £3.0m (2018: £5.4m). These items tend to be non-cash, can be volatile and do not correlate to the underlying trading performance in the period.

Exceptional Items

There was a £21.8m net exceptional expense in the year (2018: £5.9m expense), which included a charge of £16.1m in respect of legacy pension schemes due to the recent High Court decision on the Lloyd's Bank case related to GMP equalisation, offset by a settlement gain of £0.9m (net of fees). As noted below, this GMP equalisation accounting charge does not result in a cash outflow for Genus. Also included are charges of £5.0m for legal fees related to Genus ABS's litigation with STGenetics ('ST'), £0.7m for acquisition and integration related expenses, primarily relating to Møllevang and Progenex S.L., and other items which include £1.5m of fees relating to our strategic porcine collaboration in China with BCA and an insurance receipt from a legacy environmental claim.

Net Finance Costs

Net finance costs reduced to £3.9m (2018: £4.6m), benefiting from both interest rate hedging gains and lower net debt, as a result of the £66.5m equity placement which more than offset the Møllevang investment during the period.

Taxation

The effective rate of tax, based on adjusted profit before tax, was 24.3% (2018: 20.5%) with the prior year benefiting from a £2.4m credit from the net reduction of tax liabilities in the US following the enactment of US tax reforms. Excluding this one-off credit, the underlying tax rate on adjusted profits in the prior year would have been 24.6%. The effective rate remains higher than the UK corporate tax rate due to the mix of overseas profits and the impact of withholding taxes on the repatriation of funds to the UK. These effects are partly mitigated by the availability of R&D credits and agricultural reliefs in certain jurisdictions.

The tax rate on statutory profits was a charge of 40.7% (2018: 347% credit), with the prior year credit reflecting a large non-cash deferred tax credit of £32.5m as a result of US tax reform. This primarily arose on applying the new US tax rates to the deferred tax liabilities associated with the fair value uplift under IAS 41 on the Group's biological assets.

Earnings Per Share

Adjusted basic earnings per share decreased by 4% (3% in constant currency) to 73.2 pence (2018: 75.9 pence) as a result of the higher tax rate and increased share count. Basic earnings per share on a statutory basis were 12.4 pence (2018: 69.7 pence), down 82%, with the prior year boosted by non-cash deferred tax credits arising from the US tax reforms.

Biological Assets

A feature of the Group's net assets is its substantial investment in biological assets, which under IAS 41 are stated at fair value. At 30 June 2019, the carrying value of biological assets was £366.7m (2018: £363.0m), as set out in the table below:

	2019 **£m**	2018 £m
Non-current assets	**307.6**	305.8
Current assets	**40.1**	37.0
Inventory	**19.0**	20.2
	366.7	363.0
Represented by:		
Porcine	**249.0**	238.8
Dairy and beef	**117.7**	124.2
	366.7	363.0

The movement in the overall balance sheet carrying value of biological assets, excluding the effect of exchange rate translation decreases of £13.0m, includes:

- a £1.0m increase in the carrying value of porcine biological assets, due principally to an increase in the pure-line valuation (driven by an increase in the percentage of animals going for breeding sales), offset partially by a decrease in retained interest (mainly in the US); and
- a £10.2m reduction in the bovine biological assets value, primarily due to current estimates, based on market data, of the semen sales price attributable to the biological asset value.

The historical cost of these assets, less depreciation, was £58.2m at 30 June 2019 (2018: £51.0m), which is the basis used for the adjusted results. The historical cost depreciation of these assets included in adjusted results was £9.4m (2018: £6.4m).

Retirement Benefit Obligations

The Group's retirement benefit obligations at 30 June 2019 were £24.2m (2018: £33.9m) before tax and £19.8m (2018: £27.9m) net of related deferred tax. The largest element of this liability relates to the multi-employer Milk Pension Fund, which we account for on the basis of Genus being responsible for 86% of the scheme (2018: 86%).

During the year, contributions payable in respect of the Group's defined benefit schemes amounted to £7.6m (2018: £7.3m).

In October 2018, the High Court handed down judgment in the Lloyds Bank pensions case, requiring pension schemes to equalise GMPs. Genus's legacy pension schemes are affected by this ruling, resulting in an aggregate past service charge of £16.1m in the period, offset by a settlement gain of £0.9m (net of fees).

The Dalgety Pension Fund ('DPF') has an IAS 19 surplus of £19.1m, which includes a £22.5m separate reserve held against future unknown liabilities, which has not been recognised in the Genus Financial Statements as the Group does not have a unilateral right to it. The cost of GMP equalisation is estimated to be £11.5m for the DPF, which will be fully met by the scheme reserve without a cash cost to Genus. However, IAS 19 requires us to record a charge in the Income Statement of £11.5m, which is offset by an equal and opposite credit in the Statement of Comprehensive Income.

The cost of GMP equalisation for Genus's share of the Milk Pension Fund ('MPF') is estimated to be £4.5m, which is also recorded as a charge to the Income Statement under IAS 19. Despite this charge, the MPF has a £8.6m surplus on an IAS 19 basis. However, under IFRIC 14 Genus accounts for its committed payments under the deficit recovery plan as a liability. In February 2019, as part of the 31 March 2018 scheme valuation, a new deficit recovery plan was agreed with the MPF Trustees, which now finishes approximately a year earlier in September 2021.

Cash Flow

Cash generated by operations of £48.4m (2018: £58.3m) represented cash conversion of 84% (2018: 101%) of adjusted operating profit excluding joint ventures. The reduction was primarily due to the expansion of PIC genetic nucleuses, higher cash cost of exceptional items and a lower growth in creditor balances than the prior year.

Capital expenditure cash flows of £28.3m (2018: £22.5m) included investment growth in IntelliGen for new global locations and the investment in the new Genus One enterprise system, which is progressing well. Cash inflows from joint ventures were higher at £3.4m (2018: £2.8m). After interest and tax paid, total free cash flow was £10.0m (2018: £24.3m).

The cash outflow from investments was £22.7m (2018: £1.8m), primarily due to the acquisition of Møllevang to grow further our leadership in porcine genetics.

In December 2018, a 5% equity placement of 3.1m shares raised proceeds of £66.5m net of fees. Over the last five years the Company has invested over £180m in capital expenditure and acquisitions funded from cash flow and financing facilities. This included investments in gene editing technology, Møllevang, IVB, Hermitage, Génétiporc and De Novo, as well as increasing capital investment in IntelliGen and supply chain facilities to support growth. The equity placement provides flexibility to continue to proactively pursue future growth opportunities.

The total cash inflow for the year after this equity placement, investments and dividends was £37.0m (2018: £7.6m).

	2019	2018
Cash flow (before debt repayments)	**£m**	**£m**
Cash generated by operations	**48.4**	58.3
Interest and tax paid	**(15.0)**	(15.1)
Capital expenditure	**(28.3)**	(22.5)
Cash received from JVs	**3.4**	2.8
Other	**1.5**	0.8
Free cash flow	**10.0**	24.3
Acquisitions and investments	**(22.7)**	(1.8)
Dividends	**(16.8)**	(14.9)
Share placement	**66.5**	-
Net cash flow	**37.0**	7.6

Net Debt

Net debt decreased to £79.6m at 30 June 2019 (2018: £108.5m), with the £66.5m net equity placement proceeds being partially offset by the Møllevang acquisition and planned increased investments in capital and inventory within the business. At the end of June 2019 there was substantial headroom of £125.6m under the Group's credit facilities of £225m. Of the Group's facilities, £45m is due to expire in February 2021, with the remainder expiring in February 2022.

The Group will adopt the IFRS 16 'Leases' standard from 1 July 2019 using the modified retrospective approach. It will recognise the cumulative effect of applying IFRS 16 at the 1 July 2019 transitional date and the prior period will not be restated.

The impact on the opening balance sheet as at 1 July 2019 will be to recognise a right of use asset and corresponding lease liability in the region of £28.0m. Profit before tax is not expected to change materially, however operating profit in FY20 is expected to increase in the region of £1m (due to the depreciation expense being lower than the operating lease expense it replaces) offset by increased finance charges on the higher liability. IFRS 16 also requires a reclassification of cash flow from operations to net cash used in financing activities, however the overall impact to the Group is cash flow neutral.

The Group's financial position and borrowing ratios remain strong, with interest cover increasing to 34 times (2018: 25 times). EBITDA, as calculated under our financing facilities includes cash received from joint ventures and historical cost depreciation of biological assets. The ratio of net debt to EBITDA on this basis improved to 1.0 times (2018: 1.4 times) with both lower net debt and an increased EBITDA.

Return on Invested Capital

We measure the Group's return on invested capital on the basis of adjusted operating profit including joint ventures after tax, divided by the operating net assets of the business, stated on the basis of historical cost, excluding net debt and pension liability. This removes the impact of IAS 41 fair value accounting, the related deferred tax and goodwill. The return on invested capital was lower at 18.9% after tax (2018: 23.9%), reflecting the higher tax rate, with the prior year benefiting from deferred tax liability reductions following US tax reforms, and the higher levels of capital and other investments in the current year, to support future growth.

Dividend

During the year the Board consulted its largest shareholders on its dividend policy. Following this consultation, the Board intends to maintain a progressive dividend within a target adjusted earnings cover range of 2.5 - 3.0 times. The Board is recommending to shareholders a final dividend of 18.8 pence per ordinary share, an increase of 5% over the prior year final dividend. When combined with the interim dividend increase of 10%, this results in a total dividend for the year of 27.7 pence per ordinary share, an increase of 7% for the year. Dividend cover from adjusted earnings remains strong at 2.6 times (2018: 2.9 times).

It is proposed that the final dividend will be paid on 29 November 2019 to the shareholders on the register at the close of business on 8 November 2019.

Stephen Wilson

Group Finance Director

4 September 2019

Review of Operations

Genus PIC – Operating Review

	Actual currency			Constant currency
	2019	**2018**	**Movement**	**Movement**
	£m	**£m**	**%**	**%**
Revenue	**253.7**	247.7	2	-
Adjusted operating profit exc JVs	**93.1**	88.7	5	2
Adjusted operating profit inc JVs	**100.6**	94.8	6	4
Adjusted operating margin exc JVs	**36.7%**	35.8%	0.9pts	0.7pts

Market

The pork market saw dramatic volatility in FY19 and this is expected to continue. Analysts are projecting a 40% to 50% reduction in China's pig herd due to ASF, equating to up to 15 million tonnes of lost pork production in 2019, much more than the entire global pork trade in 2018. This massive production gap presents a unique opportunity for all animal protein sectors and will impact global pork, beef and poultry prices for years. The ASF epidemic will permanently reshape the Chinese pork industry. Chinese officials indicate that up to 80% of producers, primarily smaller ones, will ultimately not repopulate their herds, driving the industry toward larger scale and more vertically integrated production, providing a significant opportunity for Genus PIC.

The EU, Brazil, Canada and the US are all preparing to supply China, leading to an expected 8% increase in global pork exports in 2019. The US would be uniquely positioned to supply China, but tariffs on US pork to China limit the short term potential. Canada has also been facing pork import barriers from China.

Pig prices have increased around the world in response to these dynamics. Pig prices have risen sharply in China in recent months. Average pig carcass prices in the EU through August 2019 were up approximately 20%, on strong sales to China. However, prices in the US have been volatile, given the competing dynamics of increased export potential and continued tariffs.

The porcine genetics market also saw significant changes in FY19. The breakup of one of PIC's main global competitors, DanAvl, into three companies has reshaped the European market. DanAvl continues to operate as a smaller rebranded company called Danbred. A new competitor, Danish Genetics, has been created by former DanAvl nucleus breeders and multipliers. Lastly, Møllevang Genetics partnered with PIC, starting from July 2018.

Performance

Genus PIC grew operating profits despite the ASF outbreak in China. Operating profit including joint ventures was £100.6m, up 4% in constant currency. Global volumes were unchanged, with a decline in Asia offset by growth in all other regions. Strategically important royalty revenues rose by 7%.

In North America, volumes were up by 4% and royalty revenue grew 3% in constant currency. Operating profits were down by 3%, driven by short term higher customer credits arising from animals from a few contract farm locations. Actions were taken to resolve the source of this issue. We saw improving business momentum as the second half progressed and we launched the new Møllevang-influenced PIC800 Duroc sireline.

Latin American operating profits including joint ventures improved by 23% and revenues were up 22% in constant currency. All key markets in the region generated double-digit operating profit growth. Revenues were also up in key trading countries and market conditions continued to improve in the second half of our fiscal year. Breeding stock revenue increased by 36% and royalty revenue grew by 14% in constant currency.

In Europe, strong operating profit growth of 30% in constant currency was driven by successful execution of strategic initiatives, leading to 11% royalty revenue growth. The integration of PIC's strategic collaboration with Møllevang Genetics saw positive impacts on customer trials and demand and the outlook for Europe remains strong.

Asia's operating profits including joint ventures were below prior year by 37% in constant currency. This was wholly due to the ASF outbreak in August 2018, which reduced PIC's profit in China by around £5m. This reduction was only partially offset by operating profit growth in the Philippines, Vietnam and Japan.

Despite market volatility, PIC's global business remains strong and it is well positioned to meet changing market needs. PIC continued to focus on its long term strategy, with investments to enhance product supply and differentiation. The collaboration in China with BCA is a strategic milestone that will allow us to further expand our business in China.

Genus ABS - Operating Review

	Actual currency			Constant currency
	2019	2018	Movement	Movement
	£m	£m	%	%
Revenue	**222.6**	210.6	6	7
Adjusted operating profit[1]	**29.9**	26.1	15	15
Adjusted operating margin	**13.4%**	12.4%	1.0pts	1.0pts

Market

Milk and beef producers continued to consolidate, with growth of large-scale farming in Russia, the Middle East and the US. Customers are using more sexed dairy genetics and, in the US, margin pressure continues to lead to a trend of more beef on dairy genetics to generate a more valuable by-product from older animals.

From late 2018 into 2019, the global milk supply showed little growth. Increased demand in markets such as China, sustaining above average levels of imports, meant prices for dairy commodities increased through the first half of 2019 and this appears to be sustainable as stocks of dairy products reduce.

Despite better milk prices, margins have been eroded in markets such as Europe, following the extended drought in mid-2018, which required additional feed purchases and kept feed prices high. More recent droughts in Australia have also reduced cow numbers. Milk yield per cow continues to grow in the US and other global markets as genetics improve, but growth in US output has been held back by a 1% decline in cow numbers.

The outbreak of ASF and growth in fast food restaurants has led to a 53% increase in beef imports in China, in the first half of 2019, helping to fuel global demand. Much of this demand was met by countries such as Argentina, Australia and Brazil, where exports grew by 20% in the first half of 2019. Damaging winter weather conditions in the US led to a downturn in exports of 3% for the first half of 2019.

Overall, beef prices trended positively, with countries such as Australia up as much as 14% to the end of July 2019 and China up 7%.

The dairy and beef genetics market continued to consolidate. The merger of Koepon Holdings (Alta) and CRI (Genex) was completed in late 2018, to form Urus, which is now the largest bovine genetics supplier by volume.

[1] Less non-controlling interest

Performance

ABS performed strongly with operating profit increasing 15% in constant currency. Volume and revenue rose 6% and 7% respectively. Sexed volumes grew 42%, reflecting Sexcel's continued success. Increased use of beef genetics in dairy herds supported 22% growth in global beef volumes. IVB is now fully integrated into the geographic regions and reported within their results.

In Europe, operating profit was up 7% in constant currency, with stable volumes. The trend of dairy customers using sexed genetics, coupled with beef genetics for a portion of the herd, increased beef volumes by 10%. European sexed semen volumes grew 24%.

In North America, revenues grew by 4% and operating profit by 40% in constant currency, fuelled by previous investments in key account management and high growth in Sexcel. Semen and embryo volumes were up by 9%, with sexed volumes up 48% and beef volumes up 60%, supported by proprietary NuEra genetics selected for cross-bred beef on dairy performance. North American embryo profits increased substantially, as operational efficiency improved in key customer sites.

In Latin America, operating profit increased by 15% in constant currency. High growth in Sexcel was partially offset by a strong prior year embryo performance, influenced by the phasing of a key account embryo services contract. Volumes increased by 10%, driven by sexed volumes up 30% and beef volumes up 14%, utilising NuEra genetics, selected for cross-bred performance of North American sires with tropical cows.

In Asia, operating profit was up 7% and revenue increased by 10%, with a steady performance across most key markets. Sexcel sales in India continued to ramp up, with several large orders to be fulfilled from the Genus India Brahma facility. Production began at the Mehsana cooperative bull stud in Gujarat towards the end of the period and commissioning of the production facility for the State of Uttar Pradesh is in progress.

Overall, the increasing customer adoption of Sexcel, combined with our proprietary beef offering and leading dairy genetics portfolio, mean we anticipate continued progress in the next fiscal year.

Research and Development - Operating Review

	Actual currency			Constant currency
	2019	**2018**	**Movement**	**Movement**
	£m	**£m**	**%**	**%**
Porcine product development	**18.4**	17.0	8	5
Bovine product development	**20.0**	17.2	16	13
Gene editing	**7.3**	5.0	46	42
Other research and development	**9.0**	7.6	18	14
Net expenditure in R&D[2]	**54.7**	46.8	17	13

Performance

Net R&D investment increased as planned by 13% in constant currency, as Genus pursued key strategic initiatives to further strengthen its proprietary differentiated offerings, including increasing investment in gene editing, primarily under the PRRSv programme.

Accelerated genetic gain in our porcine populations continues to be driven by our single-step genomic evaluation process. Investments increased to expand genetic testing to additional elite genetic production sites and populations, following the Møllevang strategic collaboration. Early results from incorporating these genetics into PIC's product development programme are encouraging and we launched the Duroc-based PIC800 sireline towards the end of the period. We also applied research to develop new genetic traits of commercial relevance, such as tenderness, and are now already selecting for these traits. The investment in these initiatives was partially offset by lower operating costs in PIC's nucleus herds.

Bovine product development expenditure increased by 13%, as Genus continued to produce an industry leading Holstein dairy bull portfolio, with over 50% coming from the De Novo joint venture. This joint venture is also delivering a strong pipeline of young bulls and is helping to drive volume increases within ABS. The beef genetic nucleus programme also produced strong results and the pipeline of proprietary NuEra beef bulls coming into the stud is set to double during the next year.

In addition, we continued with our investment in IntelliGen, while amortising historical capitalised development costs. During the period, we expanded Sexcel manufacturing to meet significantly increasing demand and to provide unique genetic offerings globally. We also successfully brought into production

[2] Less non-controlling interest

our first external customer site in India, added capacity in other sites and further expanded the IntelliGen footprint globally through new customers for technology transfer and external customer service.

Gene editing expenditure increased by 42%, primarily due to investment in the PRRSv resistance programme. We continued our engagement with the FDA and the relationship remains constructive and positive. As planned, we increased the number of gene edited pigs, working with RenOVAte to continue producing founder gene edited pigs and multiplying up animal numbers by breeding initial founders with pure-line animals. There are now hundreds of edited animals and we have taken on additional dedicated facilities to house them, as we continue to grow the population.

Other R&D expenditure included work on our bioinformatics platform, genome science and external collaborations in a variety of discovery areas, including seeking new gene edit targets and exploring the benefits of full genome sequencing.

Principal Risks and Uncertainties

Genus is exposed to a wide range of risks and uncertainties as it provides farmers with superior genetics to fulfil its vision. Some of these risks relate to the current business operations in our global agricultural markets, while others relate to future commercial exploitation of our leading-edge R&D programmes. We are also exposed to global economic and political risks such as trade restrictions and Brexit. Additionally, we monitor emerging new risks such as changing consumption patterns and the emergence of alternative proteins such as lab-based meat.

Out of this broad risk universe we have identified ten principal risks, which we periodically evaluate based on an assessment of the likelihood of occurrence and magnitude of potential impact, together with the effectiveness of our risk mitigation controls. Our assessment is that Brexit is not a principal risk for Genus. The table below outlines these principal risks and uncertainties and how we manage them.

The Directors confirm that they have undertaken a robust assessment of the principal risks and uncertainties facing the Group.

STRATEGIC RISKS

Risk Description	How we manage risk	Risk change in 2019
Developing products with competitive advantage		
• Development programmes fail to produce best genetics for customers. • Increased competition to secure elite genetics.	Dedicated teams align our product development to customer requirements. We use large-scale data and advanced genomic analysis to ensure we meet our breeding goals. We frequently measure our performance against competitors in customers' systems, to ensure the value added by our genetics remains competitive.	No change.
Continuing to successfully develop IntelliGen technology		
• Failure to manage the technical, production and financial risks associated with the rapid development of the IntelliGen business.	Our continued development of the technology and its deployment to new markets is supported by dedicated internal resources and agreements with suppliers. Further patent infringement proceedings initiated by ST in the US in 2017 are being vigorously defended.	Reduced. We saw continued strong growth and customer acceptance of Sexcel. The IntelliGen team made further improvement to processing efficiency. We continued to increase IntelliGen's global deployment, securing new third-party customers.

Developing and commercialising gene editing and other new technologies		
• Failure to develop successfully and commercialise gene editing technologies due to technical, intellectual property, market, regulatory or financial barriers. • Competitors secure ‘game-changing’ new technology.	We stay aware of new technology opportunities through a wide network of academic and industry contacts. Our R&D Portfolio Management Team oversees our own research, ensures we correctly prioritise our R&D investments and assesses the adequacy of resources and the relevant IP landscapes. We have formal collaboration agreements with key partners, to ensure responsible exploration and development of technologies and the protection of IP. The Board is updated regularly on key development projects.	No change. Key initiatives continue to progress through the R&D life cycle and we maintain the high level of investment needed to bring the end products to market. We entered into a strategic collaboration arrangement with BCA in China to research, develop and commercialise PRRSv-resistant pigs in China.
Capturing value through acquisitions		
• Failure to identify appropriate investment opportunities or to perform sound due diligence. • Failure to successfully integrate an acquired business.	We have a rigorous acquisition analysis and due diligence process, with the Board reviewing and signing off all material projects. We also have a structured post- acquisition integration planning and execution process.	No change. The acquisition process continues to provide valuable and timely access to investment opportunities. Our experiences with post-acquisition integration provide a platform for integrating newly acquired businesses.
Growing in emerging markets		
• Failure to appropriately develop our business in China and other emerging markets.	Our organisation blends local and expatriate executives, supported by the global species teams, to allow us to grow our business in key markets, while managing risks and ensuring we comply with our global standards. We also establish local partnerships where appropriate to increase market access.	Increased. In China, we have experienced the negative impact of the country-wide ASF outbreak, which is causing disruption to the pig industry. The trade disputes between the US and China increase uncertainty for global trade.

OPERATIONAL RISKS

Risk Description	How we manage risk	Risk change in 2019
Protecting IP		
• Failure to protect our IP could mean Genus-developed genetic material, methods, systems and technology become freely available to third parties.	We have a global, cross-functional process to identify and protect our IP. Our customer contracts and our selection of multipliers and joint venture partners include appropriate measures to protect our IP. We maintain IP landscape watches and where necessary conduct robust 'freedom to operate' searches, to identify third-party rights to technology.	No change.
Ensuring biosecurity and continuity of supply		
• Loss of key livestock, owing to disease outbreak. • Loss of ability to move animals or semen freely (including across borders) due to disease outbreak, environmental incident or international trade sanctions and disputes. • Lower demand for our products, due to industry-wide disease outbreaks.	We have stringent biosecurity standards, with independent reviews throughout the year to ensure compliance. We investigate biosecurity incidents, to ensure learning across the organisation. We regularly review the geographical diversity of our production facilities, to avoid over-reliance on single sites.	Increased. This is due to the ongoing escalation of trade wars. In addition, supply chain risks associated with disease outbreaks have increased around the world. We continue to strengthen our biosecurity measures to mitigate this inherent risk.
Hiring and retaining talented people		
• Failure to attract, recruit, develop and retain the global talent needed to deliver our growth plans and R&D programmes.	We have a robust talent and succession planning process, including annual assessments of our global talent pool and active leadership development programmes. The Group's reward and remuneration policies are reviewed regularly, to ensure their competitiveness. We work closely with a number of specialist recruitment agencies, to identify candidates with the skills we need.	Increased. The Group's Finance Director is taking on the role of Chief Executive in September 2019. An external search is under way for a new Finance Director. To date, we have been largely successful in recruiting and retaining the appropriate skills to meet our business growth plans.

FINANCIAL RISKS		
Risk Description	**How we manage risk**	**Risk change in 2019**
Managing agricultural market and commodity prices volatility		
• Fluctuations in agricultural markets affect customer profitability and therefore demand for our products and services. • Increase in our operating costs, due to commodity pricing volatility.	We continuously monitor markets and seek to balance our costs and resources in response to market demand. We actively monitor and update our hedging strategy to manage our exposure. Our porcine royalty model and extensive use of third-party multipliers mitigates the impact of cyclical price and/or cost changes in pig production.	No change.
Funding pensions		
• Exposure to costs associated with failure of third-party members of joint and several liabilities pension scheme. • Exposure to costs because of external factors (such as GMP equalisation, mortality rates, interest rates or investment values) affecting the size of the pension deficit.	We are the principal employer for the Milk Pension Fund and chair the group of participating employers. The fund is closed to future service and has an agreed deficit recovery plan, based on the 2018 actuarial valuation. We also monitor the strength of other employers in the fund and have retained external consultants to provide expert advice.	Reduced. The outcome of the triennial 2018 fund valuation resulted in a lower deficit and reduced the length of the existing recovery plan to September 2021. The employers group signed a memorandum of understanding with the Trustee to formalise the investment de-risking strategy.

Group Income Statement

Genus plc

For the year ended 30 June 2019

	Note	2019 £m	2018 £m
REVENUE	2	**488.5**	470.3
ADJUSTED OPERATING PROFIT	2	**57.7**	57.7
Adjusting items:			
- Net IAS 41 valuation movement on biological assets	9	**(14.7)**	(28.7)
- Amortisation of acquired intangible assets	8	**(9.5)**	(9.5)
- Share-based payment expense		**(3.0)**	(5.4)
		(27.2)	(43.6)
- Exceptional items:	3		
- Pension related		**(15.2)**	-
- Litigation		**(5.0)**	(5.0)
- Acquisition and integration		**(0.7)**	(1.2)
- Other		**(0.9)**	0.3
Total exceptional items		**(21.8)**	(5.9)
Total adjusting items		**(49.0)**	(49.5)
OPERATING PROFIT		**8.7**	8.2
Share of post-tax profit of joint ventures and associates retained		**5.1**	4.2
Finance costs	4	**(4.7)**	(4.8)
Finance income	4	**0.8**	0.2
PROFIT BEFORE TAX		**9.9**	7.8
Taxation	5	**(3.2)**	33.8
PROFIT FOR THE YEAR FROM CONTINUING OPERATIONS		**6.7**	41.6
ATTRIBUTABLE TO:			
Owners of the Company		**7.8**	42.7
Non-controlling interest		**(1.1)**	(1.1)
		6.7	41.6
EARNINGS PER SHARE FROM CONTINUING OPERATIONS	6		
Basic earnings per share		**12.4p**	69.7p
Diluted earnings per share		**11.9p**	68.7p

ALTERNATIVE PERFORMANCE MEASURES	Note	2019 £m	2018 £m
Adjusted operating profit from continuing operations		**57.7**	57.7
Adjusted operating profit attributable to non-controlling interest		**(0.4)**	(0.8)
Pre-tax share of profits from joint ventures and associates excluding net IAS 41 valuation movement		**7.6**	6.2
ADJUSTED OPERATING PROFIT INCLUDING JOINT VENTURES AND ASSOCIATES		**64.9**	63.1
Net finance costs	4	**(3.9)**	(4.6)
ADJUSTED PROFIT BEFORE TAX FROM CONTINUING OPERATIONS		**61.0**	58.5
ADJUSTED EARNINGS PER SHARE FROM CONTINUING OPERATIONS	6		
Basic adjusted earnings per share		**73.2p**	75.9p
Diluted adjusted earnings per share		**70.7p**	74.9p

Group Statement of Comprehensive Income

For the year ended 30 June 2019

Genus plc

	2019 £m	2019 £m	2018 £m	2018 £m
PROFIT FOR THE YEAR		**6.7**		41.6
Items that may be reclassified subsequently to profit or loss				
Foreign exchange translation differences	**19.7**		(22.4)	
Fair value movement on net investment hedges	**(1.6)**		1.3	
Fair value movement on cash flow hedges	**(2.2)**		1.1	
Tax relating to components of other comprehensive income	**(2.5)**		2.2	
		13.4		(17.8)
Items that may not be reclassified subsequently to profit or loss				
Actuarial (loss)/gain on retirement benefit obligations	**(5.4)**		43.4	
Movement on pension asset recognition restriction	**(10.1)**		(2.5)	
Release/(recognition) of additional pension liability	**34.5**		(39.4)	
Tax relating to components of other comprehensive income	**(3.2)**		(0.3)	
		15.8		1.2
OTHER COMPREHENSIVE INCOME/(EXPENSE) FOR THE YEAR		**29.2**		(16.6)
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		**35.9**		25.0
ATTRIBUTABLE TO:				
Owners of the Company		**37.1**		26.1
Non-controlling interest		**(1.2)**		(1.1)
		35.9		25.0

Group Statement of Changes in Equity

Genus plc

For the year ended 30 June 2019

	Note	Called up share capital £m	Share premium account £m	Own shares £m	Translation reserve £m	Hedging reserve £m	Retained earnings £m	Total £m	Non-controlling interest £m	Total equity £m
BALANCE AT 30 JUNE 2017		6.1	112.8	(0.1)	39.2	1.1	240.2	399.3	2.8	402.1
Foreign exchange translation differences, net of tax		-	-	-	(19.7)	-	-	(19.7)	-	(19.7)
Fair value movement on net investment hedges, net of tax		-	-	-	1.0	-	-	1.0	-	1.0
Fair value movement on cash flow hedges, net of tax		-	-	-	-	0.9	-	0.9	-	0.9
Actuarial gain on retirement benefit obligations, net of tax		-	-	-	-	-	36.0	36.0	-	36.0
Movement on pension asset recognition restriction, net of tax		-	-	-	-	-	(2.1)	(2.1)	-	(2.1)
Recognition of additional pension liability, net of tax		-	-	-	-	-	(32.7)	(32.7)	-	(32.7)
Other comprehensive (expense)/income for the year		-	-	-	(18.7)	0.9	1.2	(16.6)	-	(16.6)
Profit for the year		-	-	-	-	-	42.7	42.7	(1.1)	41.6
Total comprehensive income for the year		-	-	-	(18.7)	0.9	43.9	26.1	(1.1)	25.0
Recognition of share-based payments, net of tax		-	-	-	-	-	6.0	6.0	-	6.0
Adjustment arising from change in non-controlling interest		-	-	-	-	-	-	-	0.8	0.8
Dividends	7	-	-	-	-	-	(14.9)	(14.9)	-	(14.9)
Issue of ordinary shares		0.1	-	-	-	-	-	0.1	-	0.1
BALANCE AT 30 JUNE 2018		6.2	112.8	(0.1)	20.5	2.0	275.2	416.6	2.5	419.1
Foreign exchange translation differences, net of tax		-	-	-	**16.6**	-	-	**16.6**	**(0.1)**	**16.5**
Fair value movement on net investment hedges, net of tax		-	-	-	**(1.3)**	-	-	**(1.3)**	-	**(1.3)**
Fair value movement on cash flow hedges, net of tax		-	-	-	-	**(1.8)**	-	**(1.8)**	-	**(1.8)**
Actuarial loss on retirement benefit obligations, net of tax		-	-	-	-	-	**(4.6)**	**(4.6)**	-	**(4.6)**
Movement on pension asset recognition restriction, net of tax		-	-	-	-	-	**(8.3)**	**(8.3)**	-	**(8.3)**
Release of additional pension liability, net of tax		-	-	-	-	-	**28.7**	**28.7**	-	**28.7**
Other comprehensive income/(expense) for the year		-	-	-	**15.3**	**(1.8)**	**15.8**	**29.3**	**(0.1)**	**29.2**
Profit/(loss) for the year		-	-	-	-	-	**7.8**	**7.8**	**(1.1)**	**6.7**
Total comprehensive income/(expense) for the year		-	-	-	**15.3**	**(1.8)**	**23.6**	**37.1**	**(1.2)**	**35.9**
Recognition of share-based payments, net of tax		-	-	-	-	-	**0.2**	**0.2**	-	**0.2**
Adjustment arising from change in non-controlling interest and written put option		-	-	-	-	-	-	-	**(2.6)**	**(2.6)**
Dividends	7	-	-	-	-	-	**(16.8)**	**(16.8)**	-	**(16.8)**
Issue of ordinary shares		**0.3**	**66.2**	-	-	-	-	**66.5**	-	**66.5**
BALANCE AT 30 JUNE 2019		**6.5**	**179.0**	**(0.1)**	**35.8**	**0.2**	**282.2**	**503.6**	**(1.3)**	**502.3**

Group Balance Sheet

Genus plc

As at 30 June 2019

	Note	**2019 £m**	2018 £m
ASSETS			
Goodwill	8	**106.3**	102.0
Other intangible assets	8	**80.1**	78.7
Biological assets	9	**307.6**	305.8
Property, plant and equipment		**86.0**	76.9
Interests in joint ventures and associates		**23.6**	19.9
Other investments		**7.4**	5.9
Derivative financial asset		**0.4**	0.3
Deferred tax assets		**3.5**	4.3
TOTAL NON-CURRENT ASSETS		**614.9**	593.8
Inventories		**36.0**	34.2
Biological assets	9	**40.1**	37.0
Trade and other receivables	10	**98.0**	91.0
Cash and cash equivalents		**30.5**	29.1
Income tax receivable		**3.3**	1.4
Derivative financial asset		**1.1**	2.5
Asset held for sale		**0.2**	0.2
TOTAL CURRENT ASSETS		**209.2**	195.4
TOTAL ASSETS		**824.1**	789.2
LIABILITIES			
Trade and other payables		**(87.7)**	(83.7)
Interest-bearing loans and borrowings		**(2.1)**	(13.4)
Provisions		**(3.1)**	(2.8)
Deferred consideration		**(2.0)**	(19.3)
Obligations under finance leases		**(2.2)**	(1.4)
Current tax liabilities		**(6.1)**	(4.4)
Derivative financial liabilities		**(1.0)**	(0.3)
TOTAL CURRENT LIABILITIES		**(104.2)**	(125.3)
Interest-bearing loans and borrowings		**(101.9)**	(120.7)
Retirement benefit obligations	11	**(24.2)**	(33.9)
Provisions		**(5.7)**	(4.5)
Deferred consideration		**(4.2)**	(4.2)
Non-current income tax liability		**-**	(0.9)
Deferred tax liabilities		**(72.0)**	(74.8)
Derivative financial liabilities		**(5.7)**	(3.7)
Obligations under finance leases		**(3.9)**	(2.1)
TOTAL NON-CURRENT LIABILITIES		**(217.6)**	(244.8)
TOTAL LIABILITIES		**(321.8)**	(370.1)
NET ASSETS		**502.3**	419.1

	Note	2019	2018
		£m	£m
EQUITY			
Called up share capital		**6.5**	6.2
Share premium account		**179.0**	112.8
Own shares		**(0.1)**	(0.1)
Translation reserve		**35.8**	20.5
Hedging reserve		**0.2**	2.0
Retained earnings		**282.2**	275.2
Equity attributable to owners of the Company		**503.6**	416.6
Non-controlling interest		**4.2**	5.7
Put option over non-controlling interest	15	**(5.5)**	(3.2)
Total non-controlling interest		**(1.3)**	2.5
Total equity		**502.3**	419.1

Group Statement of Cash Flows

Genus plc

For the year ended 30 June 2019

	Note	**2019**	2018
		£m	£m
NET CASH FLOW FROM OPERATING ACTIVITIES	12	**33.4**	43.2
CASH FLOWS FROM INVESTING ACTIVITIES			
Dividends received from joint ventures and associates		**2.7**	2.8
Joint venture loan repayment		**0.7**	-
Acquisition of trade and assets	14	**(2.0)**	-
Disposal of subsidiary		**0.4**	-
Payment of deferred consideration		**(21.1)**	(1.8)
Purchase of property, plant and equipment		**(17.1)**	(17.8)
Purchase of intangible assets		**(11.2)**	(4.7)
Proceeds from sale of property, plant and equipment		**1.5**	0.4
Proceeds from sale of assets held for sale		**-**	0.3
NET CASH OUTFLOW FROM INVESTING ACTIVITIES		**(46.1)**	(20.8)
CASH FLOWS FROM FINANCING ACTIVITIES			
Drawdown of borrowings		**104.8**	64.4
Repayment of borrowings		**(138.9)**	(66.5)
Payment of finance lease liabilities		**(2.0)**	(2.2)
Equity dividends paid		**(16.8)**	(14.9)
Issue of ordinary shares		**66.5**	0.1
NET CASH INFLOW/(OUTFLOW) FROM FINANCING ACTIVITIES		**13.6**	(19.1)
NET INCREASE IN CASH AND CASH EQUIVALENTS		**0.9**	3.3
Cash and cash equivalents at start of the year		**29.1**	26.5
Net increase in cash and cash equivalents		**0.9**	3.3
Effect of exchange rate fluctuations on cash and cash equivalents		**0.5**	(0.7)
TOTAL CASH AND CASH EQUIVALENTS AT 30 JUNE		**30.5**	29.1

1. REPORTING ENTITY

Status of audit

The condensed financial information given does not constitute the Group's financial statements for the year ended 30 June 2019 or the year ended 30 June 2018, but is derived from those financial statements. The financial statements for the year ended 30 June 2018 have been delivered to the Registrar of Companies and those for the year ended 30 June 2019 will be delivered following the Company's annual general meeting. The auditors have reported on those financial statements; their reports were unqualified, did not draw attention to any matters by way of emphasis without qualifying their reports, and did not contain statements under s. 498(2) or (3) Companies Act 2006.

Basis of preparation

The condensed financial information for the year ended 30 June 2019 together with the comparative year has been computed in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union.

The Group Financial Statements are presented in Sterling, which is the Company's functional and presentational currency. All financial information presented in Sterling has been rounded to the nearest million at one decimal point.

The principal exchange rates were as follows:

	Average			Closing		
	2019	2018	2017	**2019**	2018	2017
US Dollar/£	**1.29**	1.35	1.27	**1.27**	1.32	1.30
Euro/£	**1.13**	1.13	1.16	**1.12**	1.13	1.14
Brazilian Real/£	**4.99**	4.51	4.11	**4.89**	5.12	4.30
Mexican Peso/£	**25.04**	25.37	24.61	**24.40**	26.30	23.51

While the condensed financial information included in this preliminary announcement has been computed in accordance with IFRSs, this announcement does not itself contain sufficient information to comply with IFRSs. The Company expects to publish full financial statements that comply with IFRSs in October 2019. These financial statements have also been prepared in accordance with the accounting policies set out in the 2018 Annual Report and Financial Statements, as amended by the following new accounting standards.

New standards and interpretations

In the current period, the Group has applied a number of amendments to IFRSs issued by the International Accounting Standards Board that are mandatorily effective for an accounting period that begins after 1 January 2018 and has been implemented with effect from 1 July 2018. Their application has not had any material impact on the disclosures or the amounts reported in the Group Financial Statements.

- IFRS 15 – 'Revenue from Contracts with Customers';
- IFRS 9 – 'Financial Instruments';
- Amendments to IFRS 2 – 'Classification and Measurement of Share-based Payments Transactions';
- IFRIC 22 – 'Foreign Currency Transactions and Advance Consideration'; and
- Annual Improvements to IFRSs 2014 -2016.

IFRS 15 'Revenue from Contracts with Customers' replaces IAS 18 'Revenue'. It is effective for periods beginning on or after 1 January 2018 and has therefore been implemented with effect from 1 July 2018. The standard establishes a principles-based approach for revenue recognition and is based on the concept of recognising revenue for performance obligations only when they are satisfied, and the control of goods or services is transferred. In doing so, the standard applies a five-step approach to the timing of revenue recognition and applies to all contracts with customers, except those in the scope of other standards. It replaces the separate models for goods, services and construction contracts under the previous accounting standard. Following an assessment of the impact of IFRS 15 and based on the straightforward nature of the Group's revenue streams and the absence of significant judgement required in determining the timing of transfer of control, the adoption of IFRS 15 has not had a material impact on the timing or nature of the Group's revenue recognition.

IFRS 9 'Financial Instruments' replaces IAS 39 'Financial Instruments: Recognition and Measurement'. The standard is effective for periods beginning on or after 1 January 2018 and has been implemented with effect from 1 July 2018.

The standard introduces changes to three key areas:

- new requirements for the classification and measurement of financial instruments;
- a new impairment model based on expected credit losses for recognising provisions; and
- simplified hedge accounting through closer alignment with an entity's risk management methodology.

The adoption of IFRS 9 has not had a material impact on either the Consolidated Income statement or the Consolidated Statement of Financial Position.

All equity financial instruments classified as available for sale under IAS 39 were irrevocably re-designated as fair value through other comprehensive income under IFRS 9 whereby gains or losses will never recycle to the profit and loss, and instead are recognised as movements within retained earnings in other comprehensive income only. The classification was considered appropriate as the investments are expected to be held for the long term and not expected to be sold in the short to medium term.

On the date of initial application, 1 July 2018, the Group's Other Investments were reclassified as Fair value through other comprehensive income (previously classified as Available for sale), there were no changes to the carrying value to any of the Groups financial instruments on initial application.

New standards and interpretations not yet adopted

At the date of the annual report, the following standards and interpretations were in issue but not yet effective (and in some cases had not yet been adopted by the EU) and have therefore not been applied in the report.

- IFRS 16 – 'Leases';
- Amendments to IFRS 9 – 'Prepayment Features with Negative Compensation';
- Amendments to IAS 28 – 'Long-term Interests in Associates and Joint Ventures';
- IFRIC 23 – 'Uncertainty over Income Tax Treatments';
- Amendments to IAS 19 – 'Plan Amendment, Curtailment or Settlement';
- Amendments to IAS 1 and IAS 8 – 'Definition of Material';
- Amendments to IFRS 3 – 'Definition of a Business';
- Annual Improvements to IFRS 2015-2017 Cycle; and
- Conceptual Framework for Financial Reporting.

IFRS 16

IFRS 16 'Leases' is effective for periods beginning on or after 1 January 2019. The Group will therefore adopt the standard from 1 July 2019 and the Group financial statements for the year ending 30 June 2020 will be the first prepared under IFRS 16. The Group has adopted the modified retrospective approach and will recognise the cumulative effect of applying IFRS 16 at the 1 July 2019 transitional date. The prior period will not be restated.

As a lessee, IFRS 16 removes distinctions between operating and finance leases and requires the recognition of a right of use asset and corresponding liability for future lease payables. The right of use asset will be subsequently depreciated on a straight-line basis over the life of the lease. Interest will be recognised on the lease liability. This will result in earlier recognition of expense for leases currently classified as operating leases, although over the life of a lease the total expense recognised will not change. Right of use assets recognised by the Group comprise property, motor vehicles and equipment.

The Group has elected not to recognise right of use assets and lease liabilities for leases of low-value assets, and lease payments associated with those assets will be recognised as an expense on a straight-line basis. The Group will make use of the practical expedient available on transition to IFRS 16 not to reassess whether a contract is or contains a lease. Therefore, the definition of a lease in accordance with IAS 17 'Leases' will continue to apply to those leases entered into or modified before 1 July 2019. For leases entered into or modified on or after 1 July 2019, a contract will be determined as a lease if the Group has control of the leased asset, as defined by IFRS 16.

In addition, the Group will utilise the following practical expedients, permitted by IFRS 16:

- the right of use asset for each lease will be measured as the present value of the lease liability adjusted for any prepaid or accrued lease payments prior to application;

- for leases that were previously classified as an operating lease under IAS 17 'Leases' the lease liability on 1 July 2019 will be calculated as the present value of the remaining lease payments using the incremental borrowing rate as at 1 July 2019;
- for existing leases that incurred initial direct costs, these will be excluded from the measurement of the right of use asset as at 1 July 2019;
- we will apply the use of hindsight for existing leases in determining options to extend or terminate the lease;
- we will elect not to separate lease components from non-lease components; and
- we will elect to apply a single discount rate to a portfolio of leases with similar characteristics.

There will be a significant impact on the balance sheet as at 1 July 2019 whereby a right of use asset and corresponding lease liability in the region of £28.0m will be recognised. Additionally, fixed assets of £7.2m relating to existing finance leases will be re-designated as right of use assets.

Operating profit is expected to increase in the region of £1m but not materially due to the depreciation expense being lower than the lease expense it replaces. Profit before tax is not expected to change materially as increased finance charges will offset the increase in operating profit.

The application of IFRS 16 requires a reclassification of cash flow from operations to net cash used in financing activities, however the overall impact to the Group is cash flow neutral.

The Group is currently assessing the impact of the other new pronouncements on its results, financial position and cash flows. It is not practicable to provide a reasonable estimate of the effect of these standards until a detailed review has been completed.

Going concern

After making enquiries, the Directors have a reasonable expectation that the Group has adequate resources to continue its operational existence for the foreseeable future and for a period of at least twelve months from the date of this report. Accordingly, the Directors continue to adopt and consider appropriate the going concern basis in preparing the Annual Report and Accounts.

Alternative performance measures

In reporting financial information, the Group presents alternative performance measures, ('APMs'), which are not defined or specified under the requirements of IFRS and which are not considered to be a substitute for, or superior to IFRS measures.

The Group believes that these APMs provide stakeholders with additional helpful information on the performance of the business. The APMs are consistent with how we plan our business performance and report on it in our internal management reporting to the Board and the executive leadership team. Some of these measures are also used to set remuneration targets.

The key APMs that the Group uses include: adjusted operating profit, adjusted profit before tax from continuing operations, adjusted earnings per share, net debt and adjusted EBITDA (as calculated under our financing facilities and includes cash received from joint ventures and historical cost depreciation of biological assets).

The Group reports certain financial measures, on both a reported and constant currency basis. The constant currency basis, which is an APM, retranslates the current year's results at the average actual exchange rates used in the previous financial year. This measure eliminates the effects of exchange rate fluctuations when comparing the year-on-year reported results.

The Group makes certain adjustments to the statutory profit measures in order to derive many of these APMs. The Group's policy is to exclude items that it considers to be significant in nature and/or quantum and where treatment as an adjusted item provides stakeholders with additional useful information to assess the Group's year-on-year trading performance. On this basis, the following were included within adjusted items for the year ended 30 June 2019:

- net IAS 41 valuation movements on biological assets – these movements can be materially volatile and do not directly correlate to the underlying trading performance in the period. Furthermore, the movement is non-cash related and many assumptions used in the valuation model are based on projections rather than current trading;

- amortisation of acquired intangible assets – excluding this improves the comparability between acquired and organically grown operations, as the latter cannot recognise internally generated intangible assets. Adjusting for amortisation provides a more consistent basis for comparison between the two;

- share based payments – this expense is considered to be relatively volatile and not fully reflective of the current period trading, as the performance criteria are based on EPS performance over a three-year period and include estimates of future performance; and

- exceptional items – these are items which due to either their size or their nature are excluded to improve the understanding of the Group's underlying performance. See note 3 for further details.

The reconciliation between operating profit from continuing operations and adjusted operating profit from continuing operations is shown on the face of the Group Income Statement. All other reconciliations are included within the Financial Review section.

This preliminary announcement was approved by the Board on 4 September 2019.

2. SEGMENTAL INFORMATION

IFRS 8 '*Operating Segments'* requires operating segments to be identified on the basis of internal reports about components of the Group that are regularly reviewed by the Chief Executive and the Board to allocate resources to the segments and to assess their performance. The Group's operating and reporting structure comprises three operating segments: Genus PIC, Genus ABS and Research and Development. These segments are the basis on which the Group reports its segmental information. The principal activities of each segment are as follows:

- Genus PIC – our global porcine sales business;
- Genus ABS – our global bovine sales business; and
- Research and Development – our global spend on research and development.

A segmental analysis of revenue, operating profit, depreciation, amortisation, non-current asset additions, segment assets and liabilities and geographical information is provided below. We do not include our adjusting items in the segments, as we believe these do not reflect the underlying performance of the segments. The accounting policies of the reportable segments are the same as the Group's accounting policies, as described in the Financial Statements.

Revenue	**2019 £m**	2018 £m
Genus PIC	**253.7**	247.7
Genus ABS	**222.6**	210.6
Research and Development		
Porcine Product Development	**9.4**	9.8
Bovine Product Development	**2.8**	2.2
Gene Editing	**-**	-
Other Research and Development	**-**	-
	12.2	12.0
	488.5	470.3

Operating profit by segment is set out below and reconciled to the Group's adjusted operating profit. A reconciliation of adjusted operating profit to profit for the year is shown on face of the Group Income Statement.

Adjusted operating profit	**2019 £m**	2018 £m
Genus PIC	**93.1**	88.7
Genus ABS	**29.9**	26.2
Research and Development		
Porcine Product Development	**(18.4)**	(17.0)
Bovine Product Development	**(19.7)**	(16.6)
Gene Editing	**(7.3)**	(5.0)
Other Research and Development	**(9.0)**	(7.6)
	(54.4)	(46.2)
Adjusted segment operating profit	**68.6**	68.7
Central	**(10.9)**	(11.0)
Adjusted operating profit	**57.7**	57.7

Our business is not highly seasonal and our customer base is diversified, with no individual customer generating more than 2% of revenue.

Exceptional items of £21.8m expense (2018: £5.9m expense), relate to Genus ABS (£5.1m expense), Genus PIC (£0.1m income) and our central segment (£16.8m expense). Note 3 provides details of these exceptional items.

We consider share-based payment expenses on a Group-wide basis and do not allocate them to reportable segments.

Other segment information

	Depreciation		Amortisation		Additions to non-current assets	
	2019	2018	**2019**	2018	**2019**	2018
	£m	£m	**£m**	£m	**£m**	£m
Genus PIC	**0.7**	0.8	**7.2**	7.0	**1.3**	2.9
Genus ABS	**2.3**	2.3	**2.4**	2.1	**6.8**	9.7
Research and Development						
Research	**0.5**	0.3	**1.2**	1.1	**0.8**	-
Porcine Product Development	**2.3**	2.0	**-**	-	**3.0**	0.8
Bovine Product Development	**3.4**	2.1	**2.9**	3.6	**11.5**	8.9
	6.2	4.4	**4.1**	4.7	**15.3**	9.7
Segment total	**9.2**	7.5	**13.7**	13.8	**23.4**	22.3
Central	**3.4**	2.9	**-**	-	**9.4**	5.5
Total	**12.6**	10.4	**13.7**	13.8	**32.8**	27.8

	Segment assets		Segment liabilities	
	2019	2018	**2019**	2018
	£m	£m	**£m**	£m
Genus PIC	**262.1**	235.9	**(51.6)**	(48.3)
Genus ABS	**157.1**	160.6	**(41.9)**	(41.2)
Research and Development				
Research	**7.4**	12.5	**(0.6)**	(1.3)
Porcine Product Development	**200.5**	209.5	**(56.1)**	(76.5)
Bovine Product Development	**161.5**	152.8	**(32.8)**	(31.1)
	369.4	374.8	**(89.5)**	(108.9)
Segment total	**788.6**	771.3	**(183.0)**	(198.4)
Central	**35.5**	17.9	**(138.8)**	(171.7)
Total	**824.1**	789.2	**(321.8)**	(370.1)

Geographical information

The Group's revenue by geographical segment is analysed below. This analysis is stated on the basis of where the legal entity is incorporated, which is the country in which the revenue will be reported.

Revenue	2019 £m	(Restated*) 2018 £m
North America	**211.8**	208.6
Latin America	**81.1**	75.1
Rest of Europe, Middle East, Russia and Africa	**67.7**	60.9
UK	**83.7**	76.7
Asia	**44.2**	49.0
	488.5	470.3

Non-current assets (excluding deferred taxation and financial instruments)

The Group's non-current assets by geographical segment are analysed below and are stated on the basis of where the assets are located.

	2019 £m	(Restated*) 2018 £m
North America	**420.7**	450.2
Latin America	**45.7**	37.4
Rest of Europe, Middle East, Russia and Africa	**59.3**	42.2
UK	**70.6**	41.0
Asia	**14.7**	18.4
	611.0	589.2

Revenue by type	2019 £m	(Restated+) 2018 £m
Sale of animals, semen, embryos, products and services	**358.9**	352.2
Royalties – animal and semen	**122.0**	110.7
Consulting services	**7.6**	7.4
	488.5	470.3

*Following a change in our internal reporting the Revenue and Non-current assets attributable to Russia, which were previously included within 'Asia', have been reclassified to the 'Rest of Europe, Middle East, Russia and Africa' geographical segment in the year. In accordance with IFRS 8 the comparatives have been restated.

+Revenue of £11.7m reported at 30 June 2018 has been reclassified from 'Royalties – animal and semen' to 'Sale of animal, semen, embryos, products and services'. There is no impact to the overall revenue reported.

3. EXCEPTIONAL ITEMS

Operating (expense)/income:	**2019 £m**	2018 £m
Pension related	**(15.2)**	-
Litigation	**(5.0)**	(5.0)
Acquisition and integration	**(0.7)**	(1.2)
Other	**(0.9)**	0.3
	(21.8)	(5.9)

Pension related

In October 2018, the High Court handed down judgment in the Lloyds Bank pensions case, requiring pension schemes to equalise Guaranteed Minimum Pensions (GMPs). Genus's legacy pension schemes are affected by this ruling, resulting in an aggregate past service charge of £16.1m in the period, partially offset by a settlement gain of £0.9m (net of fees).

The judgement also confirmed the range of permissible equalisation methods to calculate the costs and that the sponsoring company may direct the trustees to use the lowest cost method. There is some uncertainty about the final calculation of GMP equalisation costs, due to the treatment of certain past events which are still to be determined. Accordingly, we have not made any allowances for additional costs that could potentially arise once the treatment of backdated claims and transfers has been agreed.

Litigation

Litigation includes legal fees of £5.0m (2018: £5.0m) related to the actions between ABS Global, Inc. ('ABS') and Inguran, LLC (aka Sexing Technologies ('ST')).

On 14 July 2014, ABS launched a legal action against ST in the US District Court for the Western District of Wisconsin alleging, among other matters, that ST: (i) has a monopoly in the processing of sexed bovine semen in the US; and (ii) unlawfully maintains this monopoly through anticompetitive conduct. The legal action aimed to remove these barriers and allow free and fair competition in the sexed bovine semen processing market ('ABS Action'). In parallel with the ABS Action, ABS also filed Inter-Partes Review applications ('IPR') before the US Patent Office challenging the validity of several of ST's group patents, which ST later claimed were infringed by ABS.

On 11 January and 15 April 2016, the Patent Trial and Appeal Board ('PTAB') ruled that US Patent No. 7,195,920 (the ''920 patent') and US Patent No. 7,820,425 (the ''425 patent') were unpatentable. ST appealed these decisions, and on 23 May 2018, the federal court of appeals confirmed that the '920 and '425 patents were unpatentable. On 14 July 2015 and 2 October 2017, PTAB declined to revoke US Patent No. 8,206,987 (the ''987 patent') and US Patent No. 8,198,092 (the ''092 patent') respectively. ABS appealed the '092 patent decision, and the court of appeals affirmed the decision on 7 February 2019. The validity of the '987 patent was considered as part of the ABS Action appeal, addressed below.

On 31 March 2017, the Court entered a judgment in the ABS Action which confirmed: (i) the Company and ABS had proved that ST had wilfully maintained a monopoly in the market for sexed bovine semen processing in the US since July 2012, and awarded a permanent injunction against ST which, among other matters, relieved ABS of certain research, marketing and other non-compete restrictions contained in the 2012 semen sorting agreement between the parties; (ii) ST's ’987 and ’092 patents were valid and infringed; and (iii) that ABS had materially breached the confidentiality obligations under the 2012 semen sorting agreement. The Court also confirmed that: (i) the Company and ABS should pay ST an up-front amount of $750,000 and an on-going royalty of $1.25 per straw on commercialisation of the Genus Sexed Semen technology for the use of ST's ’987 patent in the US; (ii) the Company and ABS should pay ST an up-front payment of $500,000 and an on-going royalty of $0.50 per straw for the use of ST’s ’092 patent in the US; (iii) ABS should pay XY LLC damages of $750,000 for the use of certain XY trade secrets; and (iv) ABS had breached the confidentiality obligations under the 2012 semen sorting agreement.

Damages of $1,250,000 were paid by ABS to ST shortly after the Court’s decision in the ABS Action, and ABS has subsequently amended its technology such that it does not infringe the ‘092 patent claims. ABS has informed ST that it does not intend to pay the $0.50 royalty going forward. Claims for legal fees and costs (and post judgement interest) already incurred in connection with the ABS Action were filed by both parties.

On 27 September 2018, the court awarded ABS legal fees of approximately $4.8 million and ST legal costs of approximately $22,000. ST appealed this decision, and on 4 June 2019, the court of appeals vacated the original award for further consideration after the final resolution of the entire 2014 action, as discussed below. No credit has been accounted for this award pending the appeal.

ABS also appealed the ‘987 patent and the breach of contract decisions and the appeal hearing was heard on 20 February 2018. On 29 January 2019, the Court of Appeals accepted, in part, ABS’s appeal and reversed the decision of the district court not to allow a new ‘987 patent trial. A date for the new ‘987 trial is identified below, and the district court will revisit the question of legal costs and fees following the resolution of the new trial.

On 7 June 2017, ST, XY LLC and Cytonome/ST, LLC filed proceedings against ABS, the Company and Premium Genetics (UK) Limited (‘PG’) in the United States District Court for the Western District of Wisconsin (“New Litigation”). The New Litigation alleged that ABS and the Company infringe seven further patents and asserts trade secret and breach of contract claims. ABS and the Company have filed an answer and Counterclaim confirming that they do not infringe any valid patent and alleging among other things that ST has breached its 2012 semen sorting agreement with ABS by failing to produce sorted semen that complies with the contractual specifications. In addition, ABS has filed six IPRs seeking to revoke the additional patents raised in the New Litigation. PTAB instituted hearings in relation to three IPRs and refused to institute hearings on two other IPRs. In relation to the final IPR, relating to U.S. Patent No. 7,208,265 (‘’265 patent’), ST requested an adverse judgment. ST has subsequently dismissed its ‘265 patent infringement claim from the New Litigation and ABS has also dismissed its anti-trust and unfair competition counter claims. ABS filed Motions for Rehearing in relation to the IPRs that were not instituted, and these Motions were denied on 14 December 2018.

The hearing date for the New Litigation had been set for 1 April 2019, however, on 21 February 2019 the Court noted that it intended to issue multiple opinions on the parties’ summary judgment motions, and while those opinions were not wholly dispositive of the issues in dispute, for the reasons to be explained in the Court’s opinions, the 1 April hearing date was struck. On 26 February

2019, the Court issued a summary judgment opinion finding that: (i) ST's trade secret misappropriation and breach of contract claims were barred by the decision in the ABS Action; (ii) the asserted claims of US patent 6,524,860 were invalid; and (iii) the asserted claim of US patent 9,365,822 was invalid.

In early April 2019, PTAB held that all of the relevant claims of ST's US patent 9,446,912 ("'912 patent") were unpatentable and that some of the claims of US patent 8,529,161 ("'161 patent") were also unpatentable, while others were patentable. On 29 April 2019, the Court issued its second summary judgment opinion, granting in part and denying in part ABS' motions. In summary the Court: (i) confirmed ABS' non-infringement of the '161 and '912 patents; (ii) confirmed non-infringement by ABS under most of ST's theories of infringement in relation to the US patents 7,311,476 ("'476 patent") and 7,611,309 ("'309 patent"); and (iii) denied all of ST's motions for partial summary judgment.

The Court scheduled a trial for 3 September 2019, for the remaining theories of infringement and the parties agreed to consolidate this hearing with the '987 re-trial on invalidity. From the seven patents initially asserted against ABS in the New Litigation, only the '476 and '309 patents remain. The five other ST patents, along with the trade secrets claim, initially asserted by ST have either been struck out, found invalid, found not to be infringed or been withdrawn. The Company and ABS will continue to pursue vigorously their breach of contract counterclaim, defend the remaining patent infringement claims and seek the invalidity of the '987 patent.

Acquisitions and integration

During the year, £0.7m of expenses were incurred in relation to acquisitions and integration, principally of Møllevang and Progenex S.L. (see note 14).

Other

Included within 'Other' are £1.5m of expenses which relate to our strategic porcine collaboration in China and an insurance receipt of £0.6m from a legacy environmental claim.

4. NET FINANCE COSTS

	2019	2018
	£m	£m
Interest payable on bank loans and overdrafts	**(3.3)**	(3.0)
Amortisation of debt issue costs	**(0.4)**	(0.4)
Other interest payable	**(0.1)**	(0.2)
Net interest cost in respect of pension scheme liabilities	**(0.9)**	(1.0)
Net interest cost on derivative financial instruments	**-**	(0.2)
Total interest expense	**(4.7)**	(4.8)
Interest income on bank deposits	**0.2**	0.2
Net settlement income on derivative financial instruments	**0.6**	-
Total interest income	**0.8**	0.2
Net finance costs	**(3.9)**	(4.6)

5. INCOME TAX EXPENSE

	2019	2018
	£m	£m
Current tax expense		
Current period	**12.6**	11.7
Adjustment for prior periods	**(0.9)**	0.9
Total current tax expense in the Group Income Statement	**11.7**	12.6
Deferred tax expense		
Origination and reversal of temporary differences	**(7.7)**	(45.3)
Adjustment for prior periods	**(0.8)**	(1.1)
Total deferred tax credit in the Group Income Statement	**(8.5)**	(46.4)
Total income tax expense/(credit) excluding share of income tax of equity accounted investees	**3.2**	(33.8)
Share of income tax of equity accounted investees	**1.4**	1.5
Total income tax expense/(credit) in the Group Income Statement	**4.6**	(32.3)

6. EARNINGS PER SHARE

Basic earnings per share is the profit generated for the financial year attributable to equity shareholders divided by the weighted average number of shares in issue during the year.

Basic earnings per share from continuing operations	**2019 (pence)**	2018 (pence)
Basic earnings per share	**12.4**	69.7

The calculation of basic earnings per share from continuing operations for the year ended 30 June 2019 is based on the net profit attributable to owners of the Company from continuing operations of £7.8m (2018: £42.7m) and a weighted average number of ordinary shares outstanding of 63,141,000 (2018: 61,234,000), which is calculated as follows:

Weighted average number of ordinary shares (basic)

	2019 000s	2018 000s
Issued ordinary shares at the start of the year	**61,542**	61,162
Effect of own shares held	**(405)**	(180)
Share placement	**1,697**	-
Shares issued on exercise of stock options	**6**	20
Shares issued in relation to Employee Benefit Trust	**301**	232
Weighted average number of ordinary shares in year	**63,141**	61,234

Diluted earnings per share from continuing operations

	2019 (pence)	2018 (pence)
Diluted earnings per share	**11.9**	68.7

The calculation of diluted earnings per share from continuing operations for the year ended 30 June 2019 is based on the net profit attributable to owners of the Company from continuing operations of £7.8m (2018: £42.7m) and a weighted average number of ordinary shares outstanding, after adjusting for the effects of all potential dilutive ordinary shares, of 65,304,000 (2018: 62,120,000), which is calculated as follows:

Weighted average number of ordinary shares (diluted)

	2019	2018
	000s	000s
Weighted average number of ordinary shares (basic)	**63,141**	61,234
Dilutive effect of share options	**763**	886
Impact of share placement	**1,400**	-
Weighted average number of ordinary shares for the purposes of diluted earnings per share	**65,304**	62,120

	2019	2018
	(pence)	(pence)
Adjusted earnings per share from continuing operations		
Adjusted earnings per share	**73.2**	75.9
Diluted adjusted earnings per share	**70.7**	74.9

Adjusted earnings per share is calculated on profit before the net IAS 41 valuation movement on biological assets, amortisation of acquired intangible assets, share-based payment expense and exceptional items, after charging taxation associated with those profits, of £46.2m (2018: £46.5m), which is calculated as follows:

	2019	2018
	£m	£m
Profit before tax from continuing operations	**9.9**	7.8
Add/(deduct):		
Net IAS 41 valuation movement on biological assets	**14.7**	28.7
Amortisation of acquired intangible assets	**9.5**	9.5
Share-based payment expense	**3.0**	5.4
Exceptional items (see note 3)	**21.8**	5.9
Net IAS 41 valuation movement on biological assets in joint ventures	**1.1**	0.5
Tax on joint ventures and associates	**1.4**	1.5
Attributable to non-controlling interest	**(0.4)**	(0.8)
Adjusted profit before tax	**61.0**	58.5
Adjusted tax charge	**(14.8)**	(12.0)
Adjusted profit after tax	**46.2**	46.5
Effective tax rate on adjusted profit	**24.3%**	20.5%

7. DIVIDENDS

Amounts recognised as distributions to equity holders in the year

	2019 **£m**	2018 £m
Final dividend		
Final dividend for the year ended 30 June 2018 of 17.9 pence per share	**11.0**	-
Final dividend for the year ended 30 June 2017 of 16.2 pence per share	**-**	9.9
Interim dividend		
Interim dividend for the year ended 30 June 2019 of 8.9 pence per share	**5.8**	-
Interim dividend for the year ended 30 June 2018 of 8.1 pence per share	**-**	5.0
	16.8	14.9

The Directors have proposed a final dividend of 18.8 pence per share for 2019. This is subject to shareholders' approval at the Annual General Meeting and we have therefore not included it as a liability in these financial statements.

8. INTANGIBLE ASSETS

	Technology	Brand, multiplier contracts and customer relationships	Separately identified acquired intangible assets	Software including assets under construction	IntelliGen	Patents, licences and other	Total	Goodwill
	£m	£m	£m	£m	£m	£m	£m	£m
Cost								
Balance at 1 July 2017	53.4	82.3	135.7	8.8	21.3	4.1	169.9	104.7
Additions	-	-	-	3.6	1.1	-	4.7	-
Reclassified from tangible fixed assets	-	-	-	1.9	-	-	1.9	-
Transfer between classes	(1.3)	-	(1.3)	1.3	-	-	-	-
Disposals	-	-	-	-	-	(0.2)	(0.2)	-
Effect of movements in exchange rates	(0.4)	(1.8)	(2.2)	(0.2)	(0.2)	-	(2.6)	(2.7)
Balance at 30 June 2018	51.7	80.5	132.2	15.4	22.2	3.9	173.7	102.0
Additions	**-**	**-**	**-**	**10.2**	**1.0**	**0.5**	**11.7**	**-**
Acquisitions (note 14)	**-**	**1.8**	**1.8**	**-**	**-**	**-**	**1.8**	**1.1**
Disposals	**-**	**-**	**-**	**(0.1)**	**-**	**(0.1)**	**(0.2)**	**-**
Effect of movements in exchange rates	**1.3**	**2.8**	**4.1**	**0.2**	**0.8**	**0.1**	**5.2**	**3.2**
Balance at 30 June 2019	**53.0**	**85.1**	**138.1**	**25.7**	**24.0**	**4.4**	**192.2**	**106.3**
Amortisation and impairment losses								
Balance at 1 July 2017	24.8	47.9	72.7	7.5	0.4	1.0	81.6	-
Reclassified from tangible fixed assets	-	-	-	0.4	-	-	0.4	-
Amortisation for the year	3.0	6.5	9.5	1.4	2.1	0.8	13.8	-
Effect of movements in exchange rates	(0.1)	(0.7)	(0.8)	-	-	-	(0.8)	-
Balance at 30 June 2018	27.7	53.7	81.4	9.3	2.5	1.8	95.0	-
Impairment	**-**	**-**	**-**	**1.2**	**-**	**-**	**1.2**	**-**
Disposals	**-**	**-**	**-**	**(0.1)**	**-**	**-**	**(0.1)**	**-**
Amortisation for the year	**2.7**	**6.8**	**9.5**	**1.0**	**2.1**	**1.1**	**13.7**	**-**
Effect of movements in exchange rates	**0.4**	**1.3**	**1.7**	**0.2**	**0.4**	**-**	**2.3**	**-**
Balance at 30 June 2019	**30.8**	**61.8**	**92.6**	**11.6**	**5.0**	**2.9**	**112.1**	**-**
Carrying amounts								
At 30 June 2019	**22.2**	**23.3**	**45.5**	**14.1**	**19.0**	**1.5**	**80.1**	**106.3**
At 30 June 2018	24.0	26.8	50.8	6.1	19.7	2.1	78.7	102.0
At 30 June 2017	28.6	34.4	63.0	1.3	20.9	3.1	88.3	104.7

Included within the Software class of assets is £11.0m of costs capitalised in relation to software assets that are in the course of construction. Of this, £9.8m relates to the on-going development of GenusOne, a single global enterprise system.

9. BIOLOGICAL ASSETS

Fair value of biological assets	**Bovine £m**	**Porcine £m**	**Total £m**
Non-current biological assets	137.5	171.8	309.3
Current biological assets	-	43.8	43.8
Balance at 30 June 2017	137.5	215.6	353.1
Increases due to purchases	9.1	117.3	126.4
Decreases attributable to sales	-	(194.7)	(194.7)
Decrease due to harvest	(35.5)	(20.0)	(55.5)
Changes in fair value less estimated sale costs	(4.2)	99.9	95.7
Acquisition	-	25.1	25.1
Effect of movements in exchange rates	(2.9)	(4.4)	(7.3)
Balance at 30 June 2018	104.0	238.8	342.8
Non-current biological assets	104.0	201.8	305.8
Current biological assets	-	37.0	37.0
Balance at 30 June 2018	104.0	238.8	342.8
Increases due to purchases	**9.2**	**117.5**	**126.7**
Decreases attributable to sales	**-**	**(191.5)**	**(191.5)**
Decrease due to harvest	**(25.3)**	**(22.2)**	**(47.5)**
Changes in fair value less estimated sale costs	**7.2**	**97.2**	**104.4**
Effect of movements in exchange rates	**3.6**	**9.2**	**12.8**
Balance at 30 June 2019	**98.7**	**249.0**	**347.7**
Non-current biological assets	**98.7**	**208.9**	**307.6**
Current biological assets	**-**	**40.1**	**40.1**
Balance at 30 June 2019	**98.7**	**249.0**	**347.7**

Bovine biological assets include £3.9m (2018: £6.7m) representing the fair value of bulls owned by third parties but managed by the Group, net of expected future payments to such third parties, which are therefore treated as assets held under finance leases.

There were no movements in the carrying value of the bovine biological assets in respect of sales or other changes during the year.

The current market-determined post-tax rate used to discount expected future net cash flows from the sale of bull semen is the weighted risk adjusted cost of capital. This has been assessed as 8.7% (2018: 8.7%).

Decreases due to harvest represent the semen extracted from the biological assets. Inventories of such semen are shown as biological asset harvest.

In porcine, included in increases due to purchases is the aggregate increase arising during the year on initial recognition of biological assets in respect of multiplier purchases, other than parent gilts, of £36.3m (2018: £47.7m).

Decreases attributable to sales during the year of £191.5m (2018: £194.7m) include £71.4m (2018: £71.9m) in respect of the reduction in fair value of the retained interest in the genetics of animals, other than parent gilts, transferred under royalty contracts.

Also included is £85.4m (2018: £88.2m) relating to the fair value of the retained interest in the genetics in respect of animals, other than parent gilts, sold to customers under royalty contracts in the year.

Total revenue in the year, including parent gilts, includes £179.6m (2018: £159.6m) in respect of these contracts, comprising £57.6m (2018: £48.9m) on initial transfer of animals and semen to customers and £122.0m (2018: £110.7m) in respect of royalties received.

For pure line porcine herds, the net cash flows from the expected output of the herds are discounted at the Group's required rate of return, adjusted for the greater risk implicit in including output from future generations. This risk adjusted rate has been assessed as 11.0% (2018: 11.0%). The number of future generations which have been taken into account is seven (2018: seven) and their estimated useful lifespan is 1.4 years (2018: 1.4 years).

Year ended 30 June 2019

	Bovine £m	**Porcine £m**	**Total £m**
Net IAS 41 valuation movement on biological assets*			
Changes in fair value of biological assets	**7.2**	**97.2**	**104.4**
Inventory transferred to cost of sales at fair value	**(20.0)**	**(22.2)**	**(42.2)**
Biological assets transferred to cost of sales at fair value	**-**	**(77.2)**	**(77.2)**
	(12.8)	**(2.2)**	**(15.0)**
Fair value movement in related financial derivative	**-**	**0.3**	**0.3**
	(12.8)	**(1.9)**	**(14.7)**

Year ended 30 June 2018

	Bovine £m	**Porcine £m**	**Total £m**
Net IAS 41 valuation movement on biological assets*			
Changes in fair value of biological assets	(4.2)	99.9	95.7
Inventory transferred to cost of sales at fair value	(29.8)	(20.0)	(49.8)
Biological assets transferred to cost of sales at fair value	-	(75.1)	(75.1)
	(34.0)	4.8	(29.2)
Fair value movement in related financial derivative	-	0.5	0.5
	(34.0)	5.3	(28.7)

*This represents the difference between operating profit prepared under IAS 41 and operating profit prepared under historical cost accounting, which forms part of the reconciliation to adjusted operating profit.

10. TRADE AND OTHER RECEIVABLES

	2019 £m	2018 £m
Trade receivables	**82.8**	73.9
Other debtors	**5.1**	5.3
Prepayments and accrued income	**8.2**	10.3
Other taxes and social security	**1.9**	1.5
	98.0	91.0

Trade receivables

The average credit period our customers take on the sales of goods is 62 days (2018: 58 days). We do not charge interest on receivables for the first 30 days from the date of the invoice. We provide for all receivables based on knowledge of the customer and historical experience, and estimate irrecoverable amounts by reference to past default experience.

No customer represents more than 5% of the total balance of trade receivables (2018: nil).

At 30 June 2019, £64.7m (2018: £55.4m) of trade receivables were not yet due for payment.

11. RETIREMENT BENEFIT OBLIGATIONS

The Group operates a number of defined contribution and defined benefit pension schemes covering many of its employees. The principal funds are the Milk Pension Fund and Dalgety Pension Fund in the UK, which are defined benefit schemes. The assets of these funds are held separately from the assets of the Group, are administered by trustees and managed professionally. These schemes are closed to new members.

The financial positions of the defined benefit schemes, as recorded in accordance with IAS 19 and IFRIC 14, are aggregated for disclosure purposes. The liability split by principal scheme is set out below.

	2019 £m	2018 £m
The Milk Pension Fund – Genus's share	**14.1**	24.2
The Dalgety Pension Fund	**-**	-
Other retirement benefit obligations and other unfunded schemes	**10.1**	9.7
Overall net pension liability	**24.2**	33.9

Overall, we expect to pay £7.7m (2018: £7.5m) in contributions to defined benefit plans in the 2020 financial year.

Summary of movements in Group deficit during the year

	2019	2018
	£m	£m
Deficit in schemes at the start of the year	**(33.9)**	(40.9)
Administration expenses	**(0.9)**	(0.4)
Exceptional cost of GMP equalisation	**(16.1)**	-
Exceptional gain on settlement	**1.1**	-
Contributions paid into the plans	**7.6**	7.3
Net pension finance cost	**(0.9)**	(1.0)
Actuarial (losses)/gains recognised during the year	**(5.4)**	43.4
Movement in restriction of assets	**(10.1)**	(2.5)
Recognition of additional liability	**34.5**	(39.4)
Reclassified from accruals	**-**	(0.5)
Exchange rate adjustment	**(0.1)**	0.1
Deficit in schemes at the end of the year	**(24.2)**	(33.9)

The expense/(income) is recognised in the following line items in the Income Statement

	2019	2018
	£m	£m
Administrative expenses	**0.9**	0.4
Exceptional cost of GMP equalisation	**16.1**	-
Exceptional gains on settlement and past service	**(1.1)**	-
Net finance charge	**0.9**	1.0
	16.8	1.4

Actuarial assumptions and sensitivity analysis

Principal actuarial assumptions at the reporting date (expressed as weighted averages):

	2019	2018
Discount rate	**2.35%**	2.90%
Consumer Price Index (CPI)	**2.15%**	1.95%
Retail Price Index (RPI)	**3.15%**	3.05%

The mortality assumptions used are consistent with those recommended by the schemes' actuaries and reflect the latest available tables, adjusted for the experience of the scheme where appropriate. For 2019 and 2018, the mortality tables used are 97% of the S2NA tables, with birth year and 2017 CMI projections with a smoothing parameter of Sk = 7.5, subject to a long term rate of improvement of 1.25% for males and females.

12. NOTES TO THE CASH FLOW STATEMENT

	2019	2018
	£m	£m
Profit for the year	**6.7**	41.6
Adjustment for:		
Net IAS 41valuation movement on biological assets	**14.7**	28.7
Amortisation of acquired intangible assets	**9.5**	9.5
Share-based payment expense	**3.0**	5.4
Share of profit of joint ventures and associates	**(5.1)**	(4.2)
Finance costs (net)	**3.9**	4.6
Income tax expense/(income)	**3.2**	(33.8)
Exceptional items	**21.8**	5.9
Adjusted operating profit from continuing operations	**57.7**	57.7
Depreciation of property, plant and equipment	**12.6**	10.4
Profit on disposal of plant and equipment	**-**	(0.1)
Profit on disposal of intangible assets	**(0.1)**	-
Amortisation and impairment of intangible assets	**5.4**	4.3
Adjusted earnings before interest, tax, depreciation and amortisation	**75.6**	72.3
Cash impact of exceptional	**(7.3)**	(4.9)
Other movements in biological assets and harvested produce	**(5.5)**	(1.9)
Increase in provisions	**1.5**	1.7
Additional pension contributions in excess of pension charge	**(6.7)**	(6.9)
Other	**(4.1)**	(2.0)
Operating cash flows before movement in working capital	**53.5**	58.3
Increase in inventories	**(3.2)**	(4.2)
Increase in receivables	**(6.6)**	(5.7)
Increase in payables	**4.7**	9.9
Cash generated by operations	**48.4**	58.3
Interest received	**0.2**	0.2
Interest and other finance costs paid	**(3.3)**	(3.9)
Cash flow from derivative financial instruments	**0.6**	0.2
Income taxes paid	**(12.5)**	(11.6)
Net cash from operating activities	**33.4**	43.2

Analysis of net debt

	At 1 July 2018 £m	**Net cash flows £m**	**Foreign exchange £m**	**Non-cash movements £m**	**At 30 June 2019 £m**
Cash and cash equivalents	29.1	**0.9**	**0.5**	**-**	**30.5**
Interest-bearing loans – current	(13.4)	**12.1**	**(0.4)**	**(0.4)**	**(2.1)**
Obligation under finance leases – current	(1.4)	**2.0**	**(0.1)**	**(2.7)**	**(2.2)**
	(14.8)	**14.1**	**(0.5)**	**(3.1)**	**(4.3)**
Interest-bearing loans – non-current	(120.7)	**22.0**	**(3.2)**	**-**	**(101.9)**
Obligation under finance lease – non-current	(2.1)	**-**	**(0.3)**	**(1.5)**	**(3.9)**
	(122.8)	**22.0**	**(3.5)**	**(1.5)**	**(105.8)**
Net debt	(108.5)	**37.0**	**(3.5)**	**(4.6)**	**(79.6)**

Included within non-cash movements is £4.6m in relation to new finance leases and unwinding of debt issue costs.

13. CONTINGENCIES AND BANK GUARANTEES

Contingent liabilities are potential future cash outflows, where the likelihood of payments is considered more than remote but is not considered probable or cannot be measured reliably.

The retirement benefit obligations referred to in note 11 include obligations relating to the MPF defined benefit scheme. Genus, together with other participating employers, is joint and severally liable for the scheme's obligations. Genus has accounted for its section and its share of any orphan assets and liabilities, collectively representing approximately 86% (2018: 86%) of the MPF. As a result of the joint and several liability, Genus has a contingent liability for the scheme's obligations that it has not accounted for.

The Group's future tax charge and effective tax rate could be affected by factors such as countries reforming their tax legislation to implement the OECD's BEPS recommendations and by European Commission initiatives including state aid investigations.

At 30 June 2019, we had entered into bank guarantees totalling £4.0m.

14. BUSINESS COMBINATIONS AND DEFERRED CONSIDERATION

During the year, we acquired the trade and assets of Progenex S.L., a distributor of bovine genetics operating in Spain, and made deferred consideration payments totalling £21.1m in respect of our previous acquisitions of De Novo Genetics, Hermitage Genetics and Møllevang.

Progenex S.L.

On 20 July 2018, the group acquired the trade and assets of Progenex S.L., a distributor of bovine genetics operating in Spain, to further our growth in the Spanish bovine genetics market.

The amounts recognised in respect of the identifiable assets and liabilities acquired are set out as follows:

	£m
Inventory	0.1
Intangible assets identified - customer relationships (note 8)	1.8
Deferred tax liability	(0.4)
Total identifiable assets	1.5
Goodwill (note 8)	1.1
Total consideration	**2.6**

Satisfied by:	
Cash	2.0
Contingent consideration arrangement	0.6
Total consideration	**2.6**

The goodwill of £1.1m arising from the acquisition consists of the future synergies and market opportunities expected from combining the acquired operations with existing Genus operations. None of the goodwill is expected to be deductible for income tax purposes.

The contingent consideration arrangement requires certain sales targets to be achieved. The total that Genus could be required to pay under the contingent consideration agreement will not exceed £0.6m.
Acquisition related costs of £0.1m were recognised within exceptional costs (see note 3).

The operations acquired contributed revenues of £1.6m and £0.2m to the Group's profit for the period between the date of acquisition and the balance sheet date. Had the transaction occurred on 1 July 2018 the contribution to revenue and profit would not be materially different.

Avlscenter Møllevang A/S ('Møllevang')

On 2 July 2018, Genus PIC and Møllevang, a leading Danish porcine genetics company, signed an exclusive distribution agreement for Denmark, entered into a sireline nucleus agreement and Genus PIC purchased 49% of Møllevang. In accordance with the subscription agreement, Genus PIC paid £19.3m on 2 July 2018. Møllevang is an elite porcine genetics production partner for Genus PIC in Denmark and will continue to distribute elite genetics to the Danish market and certain other countries.

15. NON-CONTROLLING INTEREST

	2019 £m	2018 £m
Non-controlling interest	**4.2**	5.7
Put option over non-controlling interest	**(5.5)**	(3.2)
Total non-controlling interest	**(1.3)**	2.5

Summarised financial information in respect of each of the Group's subsidiaries that has a material non-controlling interest is set out below before intra-Group eliminations.

De Novo Genetics	2019 £m	2018 £m
Biological assets	**11.6**	10.7
Current assets	**1.2**	0.7
Non-current assets	**0.8**	3.1
Current liabilities	**(6.1)**	(4.2)
Net assets	**7.5**	10.3
Equity attributable to owners of the Company	**(3.5)**	(5.2)
Non-controlling interest for De Novo Genetics	**4.0**	5.1
Other non-controlling interest	**0.2**	0.6
Non-controlling interest	**4.2**	5.7

No dividends were paid to non-controlling interest (2018: £nil)