

CUTTING EDGE
INNOVATION



WORLD LEADER

IN ANIMAL GENETIC IMPROVEMENT



GENUS HELPS FARMERS TO PRODUCE HIGH-QUALITY MEAT AND MILK MORE EFFICIENTLY AND SUSTAINABLY, WHICH INCREASES THE AVAILABILITY OF SAFE, AFFORDABLE ANIMAL PROTEIN FOR CONSUMERS.



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2018 HIGHLIGHTS

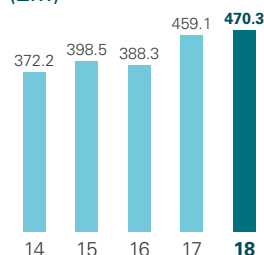
2018 WAS ANOTHER YEAR OF POSITIVE FINANCIAL PROGRESS, AS GENUS CONTINUED TO EXECUTE ITS STRATEGY SUCCESSFULLY

FINANCIAL HIGHLIGHTS¹

£470.3M

Revenue of £470.3m increased 2% (6% in constant currency) with strong bovine revenues, up 8% (11% in constant currency), primarily from strong sexed semen sales, while porcine revenues were 1% lower (up 3% in constant currency)

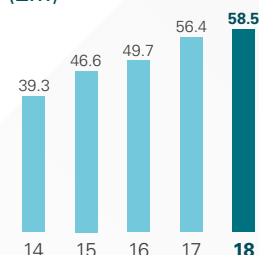
Group Revenue
(£m)



£58.5M

Adjusted profit before tax up 4% to £58.5m (up 9% in constant currency), with a strong performance in Genus ABS, up 29% in constant currency, and continued growth of 5% in PIC in constant currency. Adjusted operating profit including joint ventures improved 10% in constant currency, or 12% before increased gene editing spending

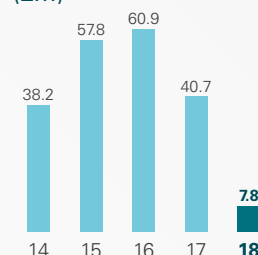
Adjusted Profit Before Tax
(£m)



£7.8M

Statutory profit before tax down 81% to £7.8m, due principally to a reduction in the non-cash fair value of biological assets. However, statutory profit after tax increased by 21% to £41.6m, as a result of non-cash deferred tax credits related to biological assets arising from US tax reforms

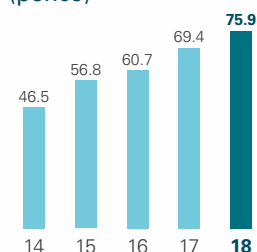
Statutory Profit Before Tax
(£m)



75.9P

Record adjusted basic earnings per share² up 9% to 75.9p (up 15% in constant currency) and statutory basic earnings per share up 30% to 69.7p, reflecting the biological asset reduction and non-cash deferred tax credits mentioned above

Adjusted Basic Earnings Per Share
(pence)

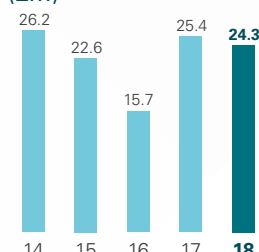


£24.3M

Solid free cash flow of £24.3m (2017: £25.4m), achieved alongside significant capital investments for long-term growth, with strong cash conversion of 101% (2017: 84%) while cash inflows from joint ventures were lower at £2.8m (2017: £8.3m) following a very strong prior year

Net debt to EBITDA of 1.4x (2017: 1.5x), with net debt at 30 June 2018 of £108.5m (2017: £111.6m) after acquisitions and investments of £1.8m (2017: £30.0m)

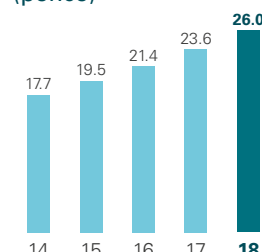
Free Cash Flow
(£m)



26.0P

Reflecting the Board's continuing confidence in the Group's prospects, it is recommending a final dividend of 17.9p per share, to give a total dividend of 26.0p per share, up 10% and well covered by adjusted earnings at 2.9 times (2017: 2.9 times)

Dividend Per Share
(pence)



OPERATIONAL HIGHLIGHTS³

CONTINUED OPERATING PROFIT GROWTH OF 5% IN PIC, ON VOLUMES UP 8% AND ROYALTY REVENUES UP 10%

- Strong profit growth in Europe of almost 50% and Latin America of 17%
- Achieved encouraging first year results from the Hermitage acquisition and partnership
- Strong volume growth of 19% in Asia, though profit growth tempered, as expected, by lower pig prices in China
- Entered into a strategic relationship with Møllevang, a leading Danish porcine genetics company, on 2 July 2018, to distribute elite genetics in the important Danish market

ABS ACHIEVED PROFIT GROWTH OF 29%, WITH REVENUE AND VOLUME GROWTH IN ALL REGIONS, FOLLOWING THE LAUNCH OF SEXCEL[®], ABS'S PROPRIETARY, INNOVATIVE SEXED GENETICS PRODUCT⁴

- Overall volumes up 5%, with sexed volumes up 25% on strong demand for Sexcel, with sales ahead of expectations
- Beef volumes up 8%, with successful launch of proprietary NuEra[®] beef genetics and increased use of beef genetics in dairy herds
- IVB continued to grow its presence with large accounts, achieving a 20% volume increase
- Third-party IntelliGen[®] contracts secured in Europe and India

RESEARCH AND DEVELOPMENT INVESTMENT INCREASED BY 13% AS PLANNED, AS KEY INITIATIVES IN GENE EDITING, BIOSYSTEMS ENGINEERING AND GENOMIC SELECTION MADE SIGNIFICANT PROGRESS

- Pregnancies established to expand the population of gene edited pigs from matings of the first batches of founder generation animals born under the PRRSv development programme⁵. First patents issued and continued positive regulatory engagement
- IntelliGen technology successfully commercialised globally, to support ABS Sexcel and third-party customers wanting to use a 21st Century sexing technology
- Achieved a leadership position in the dairy Holstein breed with 37 of the top 100 genomic bulls in the US\$ Net Merit rankings, driven by the success of De Novo

1 For definitions of adjusted profit, free cash flow and cash conversion, see Financial Review on pages 32 to 35. Results discussed throughout the Annual Report are on an adjusted basis unless otherwise stated.

2 For definition of adjusted basic earnings per share, see note 12 to the Financial Statements on page 117.

3 Based on adjusted results including joint venture income, less non-controlling interest in constant currency.

4 Sexcel is the ABS brand of sexed genetics produced with its proprietary 21st Century IntelliGen technology.

5 The PRRSv programme refers to our development-phase gene editing programme, to confer resistance to pigs to Porcine Reproductive and Respiratory Syndrome virus.

GENUS AT A GLANCE

PRODUCING SUPERIOR BREEDING ANIMALS THROUGH GENETIC IMPROVEMENT

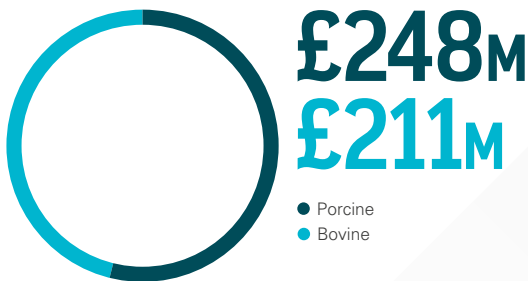
WHAT WE DO

Genus is a world-leading animal genetics company. We continuously develop better pigs and cows for farmers, by selecting animals with desirable

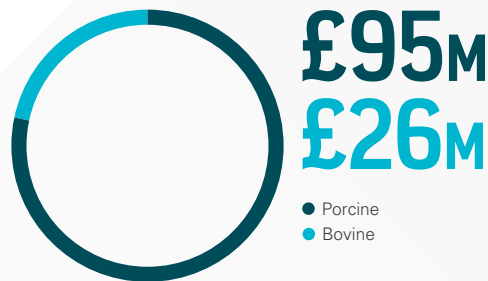
characteristics that help them to produce higher-quality meat and milk more efficiently and sustainably.

Examples of desirable characteristics include feed efficiency, disease resistance, protein and fat content, and fertility.

REVENUE¹



OPERATING PROFIT INCLUDING JOINT VENTURES¹



¹ Excludes Research and Development revenues and costs.

SERVING PORK, DAIRY AND BEEF FARMERS GLOBALLY



PORK

Our porcine genetics business PIC sells genetically superior sows, boars and semen, to breed pigs with desirable characteristics for pork production. PIC also provides technical services and advice to farmers, to maximise the performance of our breeding animals.



PIC owns over 10 pure-bred pig lines, housed in two strategic nucleus facilities located in the US and Canada. These animals are multiplied and then cross-bred in over 400 predominantly sub-contracted multiplication units located around the world. PIC boars are also housed in about 400 boar studs globally, where semen is collected for distribution to customers and multiplication herds.

PIC genetics are sold under the PIC brand through direct sales channels and strategic partners.



DAIRY AND BEEF

Our bovine genetics business, ABS, sells bull semen and embryos, which are delivered through artificial insemination to breed dairy and beef cattle with desirable characteristics for milk and beef production. ABS also provides semen sexing, IVF, reproductive and other technical services to farmers, to maximise the performance of our breeding animals.



ABS produces genetically elite bulls in the US, Europe and Latin America and also sources bulls from third-party breeders. The most elite bulls 'graduate' to one of ABS's six production studs, where their semen is collected for distribution as a frozen 'straw' of semen or used to create embryos.

ABS genetics are sold globally through direct sales channels and strategic partners under the ABS brand. However in the UK and France, they are sold under the long established Genus and Bovec brands, respectively.

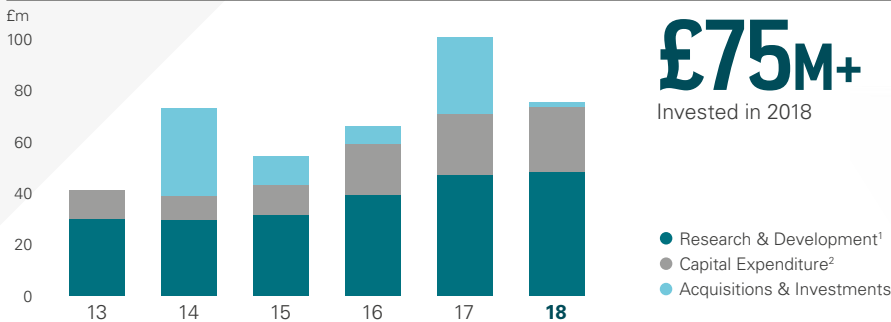
HOW WE DO IT

We analyse animals' DNA and look for markers that are linked to desirable characteristics. We then select animals with the strongest genetic profile and breed them to produce even better

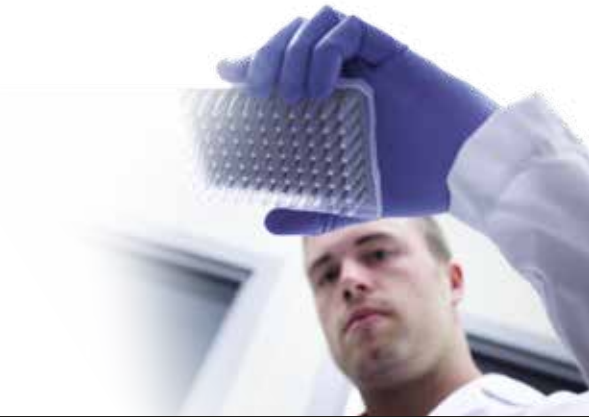
offspring, in a continuous cycle. We distribute these genetically superior animals to our customers in the form of breeding animals, semen or embryos.

We also own technology that enables us to screen and process semen for desirable traits, such as gender, and license-in technology to make precise, desirable gene edits to animals' DNA, which we are employing in our product development programmes.

INVESTING TO STRENGTHEN OUR POSITION



1 Includes IntelliGen capitalised development expenses.
2 Includes biological asset cash movements and finance lease payments.



Sales presence in

> **35+** Countries¹ **2,000+** Customers **150M+** MPEs²

➔ For more information see pages 06 to 07

Sales presence in

> **75+** Countries³ **50,000+** Customers **18M+** Cattle inseminations and embryo transfers

➔ For more information see pages 06 to 07

1 Including through franchises, distributors and joint ventures.
2 MPEs refers to market pig equivalents, a standardised measure of our customers' production of slaughter animals that contain our genetics.
3 Including through distributors.

BUSINESS MODEL

PRODUCING AND DELIVERING SUPERIOR ANIMALS TO FARMERS



PRODUCE GENETICALLY SUPERIOR BREEDING ANIMALS

OUR STRENGTHS AND RESOURCES

GLOBAL POSITION

Genus is uniquely placed as a global player, with leading market positions and brands

ELITE ANIMALS

We own elite livestock with traits farmers want

PROPRIETARY TECHNOLOGY

We own and license leading genomic and breeding technology, developed in-house and through strategic partnerships

CUSTOMER RELATIONSHIPS

We serve over 50,000 customers globally, including world-leading meat and milk producers

EXPERT PEOPLE

We have over 90 PhD qualified employees and relationships with leading research institutions

SUPPLY CHAIN AND DISTRIBUTION

We have production facilities in key locations worldwide, coupled with sales forces and agents in over 75 countries

FINANCIAL STRENGTH

Our cash generative businesses and strong financial position allow us to invest for the future

SHARED PROPRIETARY TECHNOLOGY PLATFORM

GENOMIC SELECTION

We breed successive generations of animals by scientifically selecting superior parents through DNA analysis

BIOSYSTEMS ENGINEERING

We use technology to interrogate and manipulate cells, such as our sexed semen technology

GENE EDITING

We make precise, controllable changes directly to animals' genes in our research and development programmes

IN VITRO BIOLOGY

We perform matings using IVF technology

GENOME SCIENCE

We understand the links between DNA and animals' observable characteristics, and how we can influence them

LINK TO STRATEGY



INCREASING GENETIC CONTROL AND PRODUCT DIFFERENTIATION



TARGETING KEY MARKETS AND SEGMENTS



SHARING IN THE VALUE DELIVERED



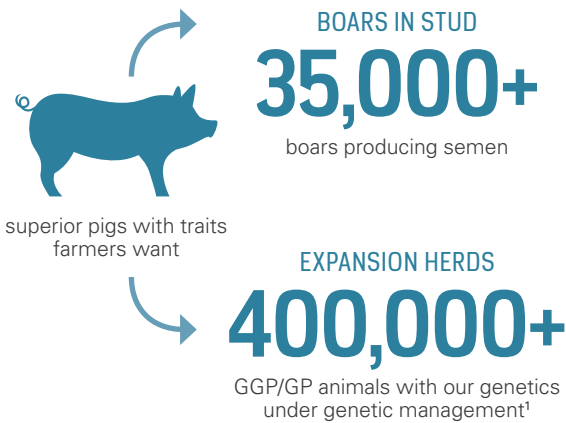
DELIVER IMPROVED BREEDING ANIMALS TO FARMERS



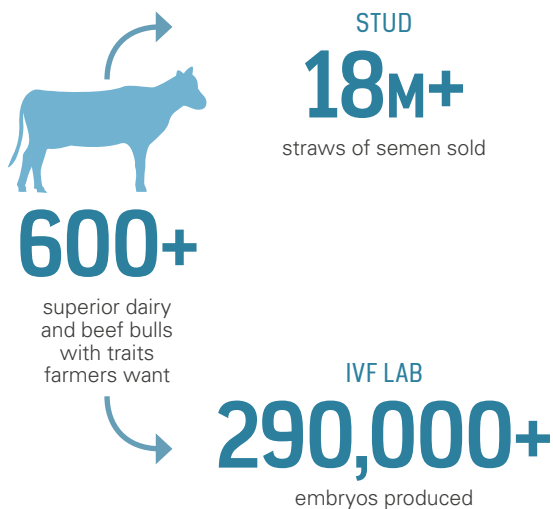
PRICE ACCORDING TO THE VALUE DELIVERED

DELIVERING FOR OUR STAKEHOLDERS

GENETICS PRIMARILY SOLD ON MULTI-YEAR ROYALTY AGREEMENTS



GENETICS PRICED ACCORDING TO INDICES OF GENETIC MERIT



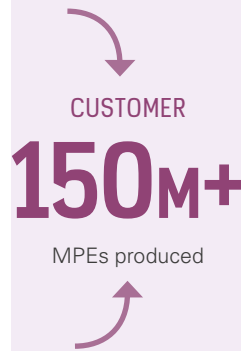
CUSTOMERS
We help our customers to produce better meat and milk, more efficiently and sustainably

CONSUMERS
We increase consumers' access to safe, affordable and nutritious animal protein

COMMUNITIES AND ENVIRONMENT
We make farming more sustainable by reducing the use of feed, water and other resources

PEOPLE
We employ approximately 2,900 people globally, who all help to deliver our vision of nourishing the world

INVESTORS
By sharing in the value we deliver to customers, we generate returns for our investors



¹ GGP/GP refers to great grandparent/grandparent.

MARKET OVERVIEW

HELPING TO MEET THE GROWING DEMAND FOR ANIMAL PROTEIN THROUGH GENETIC IMPROVEMENT



Forecast Growth in Protein Production

+1%

Pork

+2%

Milk

+1%

Beef

Source: OECD-FAO; represents forecast global production CAGR between 2017–2026.

LONG-TERM DEMAND DRIVERS FOR ANIMAL GENETIC IMPROVEMENT

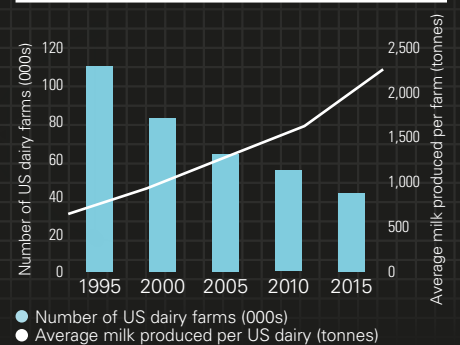
Growing consumption of animal protein driven by global population growth and greater appetite for animal protein in growing urban populations.

Increasing competition for resources such as land and water puts pressure on farmers to use superior genetics and new technologies to improve efficiency.

Growing consumer awareness is driving demand for high-quality products, which are produced with fewer drugs.

Farms are becoming larger and more technified. Larger producers typically measure performance in more detail and better understand the benefits of superior genetics.

Average US Dairy Farm Size

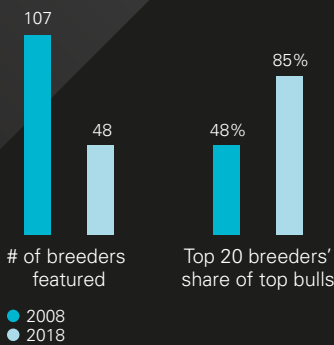


KEY TRENDS IN THE ANIMAL GENETICS INDUSTRY

Consolidation of Elite Breeding Herds

The number of breeders consistently producing high-ranking dairy genetics is falling, due to the consolidation of genetically elite breeding herds. Elite porcine breeding herds are also consolidating. This consolidation is driven by the increasing cost and use of technology to keep pace with industry leaders. As genetics consolidate, some breeders are choosing to enter into strategic alliances with competitors, so that they can offer their customers superior genetics.

Breeders Featured in Top 200 Holstein Bull Rankings



Source: Genus analysis; US Holstein breeders represented in the Top 200 NM\$ rankings by birth year; 2018 data based on Top 200 Holsteins active using April 2018 data from the Council on Dairy Cattle Breeding.

+1%

Growth in conventional semen

+25%

Growth in sexed semen

+20%

Growth in embryos

Growth rates refer to actual volume growth rates for 2018 delivered by ABS. Conventional and sexed volumes relate to global dairy semen volumes. Embryos relate to total global embryo volumes.



Adoption of Technology

Adoption of semen sexing technology and IVF is growing fast across dairy and beef herds, as they enable more focused selection of breeding animals, to breed a stronger next generation. Ownership or access to such technology is important in helping farmers accelerate genetic progress in their herds.

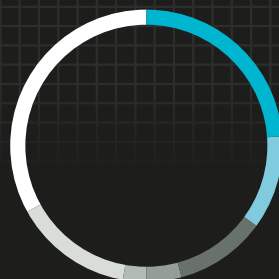
Breakthrough Technology and Data

The animal genetics industry is pursuing alternative solutions in the fight against animal disease and suffering. These include using data and health-focused breeding indices, and exploring breakthrough technology, including gene editing, which could have a significant impact on farming and animal well-being.

OUR POSITION IN THE ANIMAL GENETICS INDUSTRY

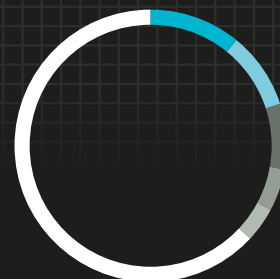
Genus is a world leader in animal genetic improvement. We have a global commercial platform with critical mass. We are also the only listed porcine and bovine genetics company globally, giving us strategic access to finance. Our competitors are largely private companies and farmer-owned cooperatives, many of which are regionally focused.

MARKET SHARE > PIC¹



- 24% PIC
- 11% Competitor 1
- 11% Competitor 2
- 4% Competitor 3
- 3% Competitor 4
- 14% Internal programmes
- 33% Other

MARKET SHARE > ABS²



- 11% Competitor 1
- 9% Competitor 2
- 8% ABS
- 5% Competitor 3
- 4% Competitor 4
- 63% Other

1 Source: Governmental agencies, local independent pork organisations, Genus estimates. Market share represents the estimated share of technified/commercial production in top pig production markets.

2 Source: Governmental agencies, regional bovine genetics and agriculture organisations, Genus estimates. Market share represents the estimated share of combined dairy and beef volumes in ABS's Top 30 target markets for dairy and Top 8 target markets for beef.

STRATEGIC FRAMEWORK

CAPTURING SIGNIFICANT GROWTH

OPPORTUNITIES

GENUS HELPS FARMERS TO PRODUCE HIGH-QUALITY MEAT AND MILK MORE EFFICIENTLY AND SUSTAINABLY. WE DO THIS BY CONTINUOUSLY PRODUCING SUPERIOR BREEDING ANIMALS THROUGH GENETIC IMPROVEMENT, WITH CHARACTERISTICS TAILORED FOR DIFFERENT MARKETS.



INCREASING GENETIC CONTROL AND PRODUCT DIFFERENTIATION

To strengthen our product offering

We use the latest technology to continuously improve our own herds, investing in new technology to strengthen our capabilities, and protecting our unique position by choosing how to deploy our genes and technology.



TARGETING KEY MARKETS AND SEGMENTS

To deliver the right offering for the right customers

We target leading integrated pork producers and progressive dairy farmers globally, and offer them our superior breeding animals, semen and embryos, together with technical services, tailored to their needs.

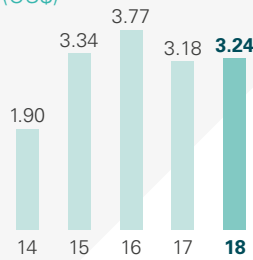


SHARING IN THE VALUE DELIVERED

To capture an appropriate share of the value we deliver to customers, aligning our interests with theirs

We demonstrate the value of our genetics on farm through trials and data, and link our pricing to genetic indices and our customers' productivity.

Porcine Genetic Improvement Index (US\$)



Measures the genetic improvement we achieve in our porcine nucleus herds that ultimately filters down to our customers' farms.

Definition

The index measures the marginal improvement in customers' US\$ profitability, per commercial pig per year, on a rolling three-year average. Prior years' index ratings have been updated, to reflect the latest results from genomic selection and the economic values of pork production.

Performance

Implementing genomic selection technology in 2013 led to a step change in genetic gain value improvement in the following years and has delivered a further improvement of US\$3.24 per pig in 2018.

What does success look like?

Creating better breeding animals for farmers, measured against proprietary and public indices which are weighted towards economic traits that help farmers operate more efficiently and sustainably.

For more information see pages 20 to 21

What does success look like?

Growing volumes, particularly with progressive dairies and integrated pork producers, who focus heavily on the efficiency and sustainability of their production systems.

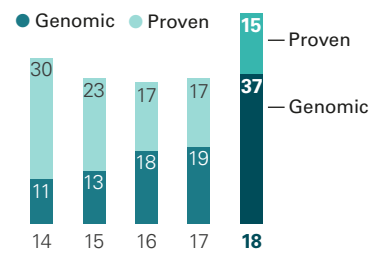
For more information see pages 22 to 23

What does success look like?

Generating profit resulting from the superior quality and performance of our products in customers' systems.

For more information see pages 24 to 25

Net Merit Rankings (genomic and daughter proven bulls)



Monitors how many of our bulls are highly ranked, based on economically relevant traits for farmers.

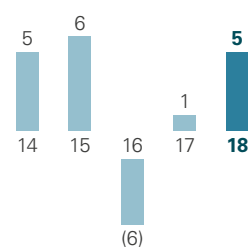
Definition

The number of our generally available Holstein bulls listed in the top 100 Genomic US\$ Net Merit rankings for genomically tested and the top 100 US\$ Net Merit rankings for daughter proven sires.

Performance

Genus has established a leadership position with its strength in genomic bulls, which over time will become daughter proven bulls. This is mainly driven by the growing portion of high-quality bulls sourced from our proprietary breeding programme, De Novo.

Dairy and Beef Volume Growth (%)



Tracks our global unit sales growth in dairy and beef.

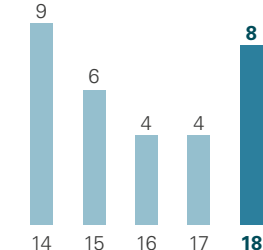
Definition

The change in dairy, beef and sexed units of semen and embryos delivered or produced for customers in the year.

Performance

Bovine volumes improved 5% to 18.6 million units, with growth across all regions. Sexed volumes were up 25%, reflecting a successful launch of Sexcel, which also strongly influenced the use of beef-on-dairy genetics, supporting an 8% increase in global beef. Embryo volumes increased 20%, as IVB continued to grow in large enterprise accounts.

Porcine Volume Growth (%)



Tracks the growth in the number of commercial pigs with PIC genetics globally.

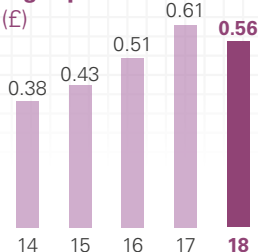
Definition

The change in volume of both direct and royalty animal sales, using a standardised MPEs measure of commercial slaughter animals that contain our genetics.

Performance

Volumes grew 8% to 151 million MPEs, with double-digit growth in Latin America, Europe and Asia, with growth in China being particularly strong from high stockings. Royalty contract volumes also increased 7%, fuelled particularly by growth in Europe of 27%.

Operating Profit Per Market Pig Equivalent (£)



Monitors porcine profitability per unit of volume.

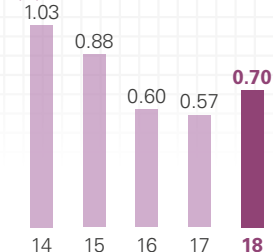
Definition

Net porcine adjusted operating profit including product development, expressed per MPE. Results include our share of Agroceres PIC, our Brazilian joint venture.

Performance

Operating profit per MPE was £0.56, down £0.05 (down £0.02 in constant currency), due to supply chain and porcine product development investments, to fuel future profit growth.

Bovine Operating Profit Per Dose (£)



Monitors bovine profitability per unit of volume.

Definition

Net dairy and beef adjusted operating profit including product development, expressed per dose of semen or embryo delivered. Excludes India, as its characteristics are substantially different to the rest of our bovine business.

Performance

Operating profit per dose was £0.70, up £0.13, due to a strong sales performance of Sexcel launched in the year and with lower costs of production than the predecessor technology.

PRINCIPAL RISKS AND UNCERTAINTIES

GENUS SUPPLIES BIOLOGICAL PRODUCTS TO AGRICULTURAL CUSTOMERS AND IS EXPOSED TO A WIDE RANGE OF RISKS AND UNCERTAINTIES.

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 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. The table below outlines the principal risks and uncertainties facing Genus and how we

manage them. We also identified those principal risks which are more likely to have a short to medium-term impact for the evaluation of our going concern and viability assessment. This is discussed in detail within our viability statement.

The Directors confirm that they have undertaken a robust assessment of the principal risks and uncertainties facing the Group. More information on our risk management framework can be found in the Corporate Governance Statement on pages 52 to 58.

**LINK TO STRATEGY/
VIABILITY
ASSESSMENT**



**INCREASING GENETIC
CONTROL AND PRODUCT
DIFFERENTIATION**



**TARGETING KEY
MARKETS AND
SEGMENTS**






**SHARING IN THE
VALUE DELIVERED**





**CONSIDERED FOR
VIABILITY ASSESSMENT**





STRATEGIC RISKS




RISK DESCRIPTION	HOW WE MANAGE RISK	STRATEGY/VIABILITY	RISK CHANGE IN 2018
DEVELOPING PRODUCTS WITH COMPETITIVE ADVANTAGE			
<ul style="list-style-type: none"> 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.		Reduced. No change in porcine but decreased in bovine, due to increased access to elite dairy genetics through the acquisition of De Novo.
CONTINUING TO SUCCESSFULLY DEVELOP INTELLIGEN TECHNOLOGY			
<ul style="list-style-type: none"> Failure to manage the technical, production and financial risks associated with the rapid development of the IntelliGen business. The industry response to the introduction of competition into the sexed semen market. 	Our continued development of the technology and its deployment to new markets is supported by dedicated internal resources and agreements with external partners and suppliers. Further patent infringement proceedings initiated by STGenetics ('ST') in the US in 2017 are being vigorously defended (see note 7 for a description of the 2014 appeal proceedings and the 2017 patent litigation).		Reduced. We successfully launched Sexcel, produced with IntelliGen technology, and customer acceptance has been strong. We continue to increase IntelliGen's global deployment and have secured third-party customers.
DEVELOPING AND COMMERCIALISING GENE EDITING TECHNOLOGIES			
<ul style="list-style-type: none"> Failure to develop successfully and commercialise gene editing technologies due to technical, intellectual property ('IP'), market, regulatory or financial barriers. Competitors secure 'game-changing' technology. 	We stay aware of new technology opportunities through a wide network of academic and industry contacts. Our R&D Portfolio Management Team ('R&D PMT') 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.
CAPTURING VALUE THROUGH ACQUISITIONS			
<ul style="list-style-type: none"> 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.

RISK DESCRIPTION	HOW WE MANAGE RISK	STRATEGY/VIABILITY	RISK CHANGE IN 2018
GROWING IN EMERGING MARKETS			
<ul style="list-style-type: none"> Failure to appropriately develop our business in China and other emerging markets. 	We have a robust organisation, blending local and expatriate executives, supported by the global species teams. This allows us to grow our business in key markets, while managing risks and ensuring we comply with our global standards.	 	
			Increased. Financial market volatility in certain emerging markets is increasing. In China, trade disputes with the US and the appearance of African Swine Fever increase uncertainty for the pig industry.



OPERATIONAL RISKS


PROTECTING IP			
<ul style="list-style-type: none"> 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			
<ul style="list-style-type: none"> 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 and 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. We experienced disease outbreak in parts of the PIC supply chain in the US in 2018. We continue to strengthen our biosecurity measures to further reduce this inherent risk. In addition, risks to global trade have increased compared with the prior year.

HIRING AND RETAINING TALENTED PEOPLE			
<ul style="list-style-type: none"> Failure to attract, recruit, develop and retain the global talent needed to deliver our R&D programmes and growth plans in our chosen markets. 	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.	 	
			Reduced. We have been largely successful in recruiting and retaining the appropriate skills to meet our business growth plans.

FINANCIAL RISKS

MANAGING AGRICULTURAL MARKET AND COMMODITY PRICES VOLATILITY			
<ul style="list-style-type: none"> 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.	 	
			Increased. Agricultural commodities are being targeted with tariffs in escalating global trade disputes. This is increasing price volatility and uncertainty for our customers in several markets around the world.

FUNDING PENSIONS			
<ul style="list-style-type: none"> Exposure to costs associated with failure of third-party members of joint and several liabilities pension scheme. Exposure to costs as a result of external factors (such as mortality rates, interest rates or investment values) affecting the size of the pension deficit. 	We are the principal employer for the Milk Pension Fund ('MPF') and chair the group of participating employers. The fund is closed to future service and has an agreed deficit recovery plan, based on the 2015 actuarial valuation. In agreement with the employers, the trustees implemented an investment de-risking strategy and have started a liability management exercise. We also monitor the strength of other employers in the fund and have retained external consultants to provide expert advice.	N/A	
			No change. The triennial 2018 fund valuation is currently in progress.

GOING CONCERN AND VIABILITY STATEMENT

The Board assesses the Group's going concern and viability based on its cash flows and business plans, combined with downside scenarios of the principal risks described on pages 12 and 13 and other financial and performance factors that could threaten the Group's plans, performance and financial position. The outcome of this analysis and the appropriateness of the period over which the Board decided to provide its viability statement are described below.

Assessing Our Prospects

In order to reach a conclusion on both the appropriateness of adopting the going concern basis of accounting in preparing the Annual Report and on our viability, the Board carried out a robust assessment of the principal risks facing Genus, including those that would threaten its business model, future performance, solvency or liquidity. This assessment considered:

- Genus's current strategic plan, financial position and its planned capital expenditure, as well as the financing facilities available to the Group. During the year, Genus exercised an accordion feature of the facility, increasing our facility by £20m and taking total current facilities to £220m, until February 2021, reducing to £174m in February 2022, the final year. At 30 June 2018, the Group had net debt of £108.5m (2017: £111.6m) and had substantial headroom of £99.3m (2017: £73.6m). The Group's financial position remains strong.

- The potential impact on the Group's cash flow and net debt, in severe but plausible scenarios of selected principal risks, and in particular the impacts of biosecurity, agricultural markets downturn, border closures, the continuing development of IntelliGen, continuity of supply and increased competition. This assessment considered the likely effectiveness of current and available mitigating actions, and the position if each of the identified principal risks materialised individually and where multiple risks occur in parallel.

Assessment Period

In their assessment of the Group's viability, the Directors have determined that a three-year time horizon, to June 2021, is an appropriate period to adopt. This was based on the Group's visibility of its product development pipeline, for example, as a result of the genetic lag of approximately three years between the porcine nucleus herds and customers' production systems and the pipeline of young bulls. The Board also considered the nature of the principal risks affecting Genus, including the agricultural markets in which it operates.

Going Concern and Viability Statement

Based on this assessment, 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 12 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.

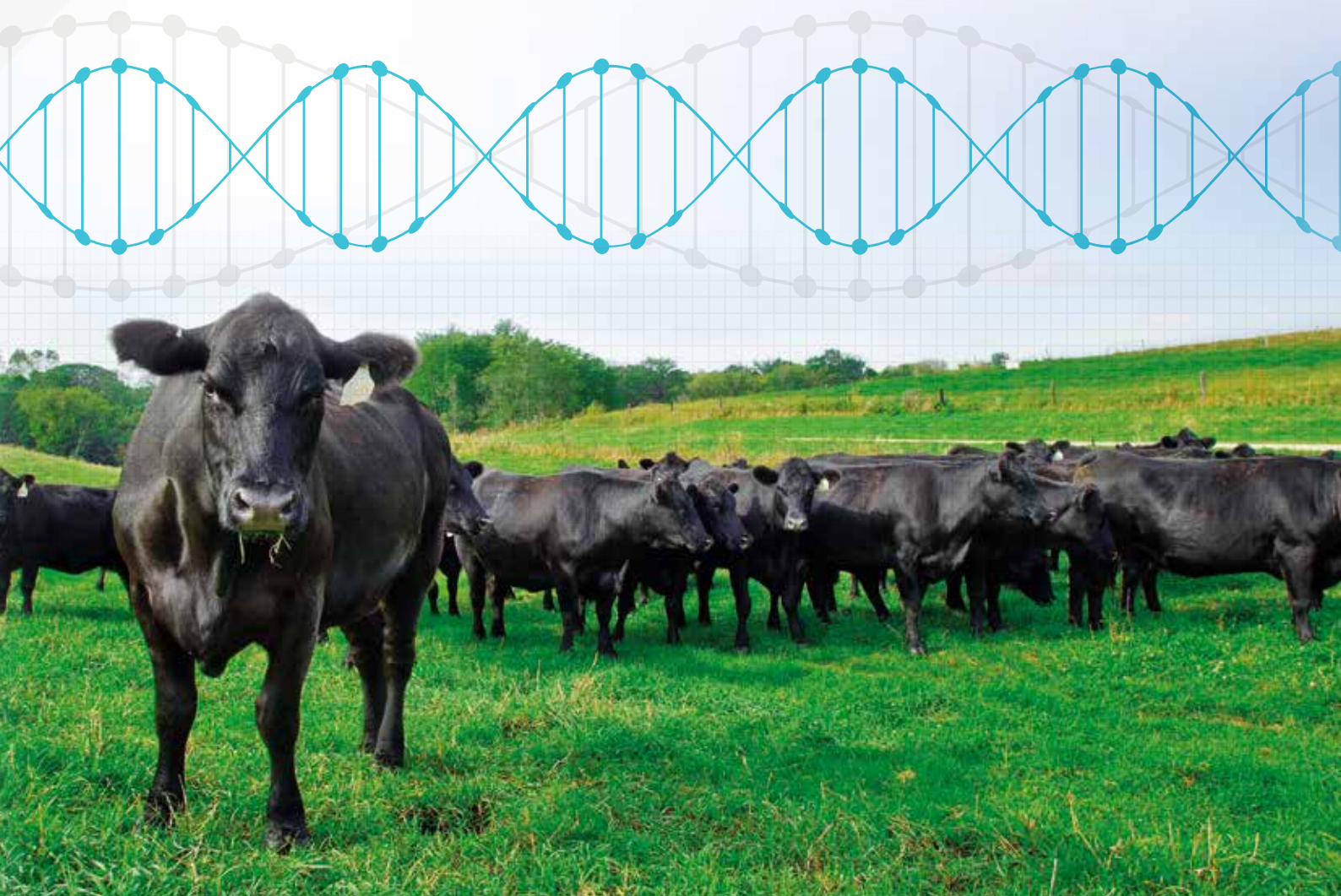
Also, based on this assessment, the Directors have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period to June 2021.



The Strategic Report was approved by the Board of Directors on 5 September 2018 and signed on its behalf by:

Karim Bitar
Chief Executive

Stephen Wilson
Group Finance Director



CHAIRMAN'S STATEMENT

MAKING STRATEGIC PROGRESS



GENUS CONTINUED TO SUCCESSFULLY IMPLEMENT ITS STRATEGY AND DELIVERED FURTHER REVENUE AND PROFIT GROWTH

BOB LAWSON
CHAIR OF THE BOARD



The Board was pleased with Genus's progress this year, as the executive team continued to successfully implement the Group's strategy and delivered further revenue and adjusted profit growth, while investing for the future. Genus PIC had a good year, increasing both revenue and adjusted operating profit in constant currency. Genus ABS performed strongly, as we saw benefits from the strategic and operational actions taken and the launch of Sexcel. Our increasing investment in R&D has continued to deliver, generating differentiated products for our customers and positioning Genus to lead the way in exciting new areas, such as gene editing.

17.9p

Final dividend per share

26.0p

Total dividend for the year (per share)

10%

Total dividend increase

The Group aims to balance investment in the business with the discipline of generating attractive returns on capital and paying a growing dividend to shareholders. The Board is therefore recommending a final dividend of 17.9 pence per share, resulting in a total dividend in respect of the year of 26.0 pence per share. This is an increase of 10%, compared with last year's total dividend of 23.6 pence per share. The final dividend will be paid on 30 November 2018, to shareholders on the register at the close of business on 16 November 2018.



Continued Strategic Progress

The Group's strategy is a key focus for the Board and we spend considerable time each year reviewing it and monitoring progress, in the context of the evolving competitive and technological environment. This includes our annual strategic review with the executive leadership team, which enables us to assess, challenge and approve the detailed strategic plans for each area of the Group.

One of the year's key strategic developments was the launch of Sexcel, our proprietary sexed bovine genetics offering. This is delivering excellent fertility results for customers, helping to drive sales ahead of our expectations. We are also licensing the underlying technology to third parties, under the IntelliGen brand, with early successes with a number of international customers.

PIC's growth was driven by strong performance in Latin America and pleasingly in Europe, where the business has been transformed over a number of years to now deliver sustained growth in volumes, royalties and operating profits. In addition to organic growth, the business benefited from one of last year's important strategic actions, the acquisition of Hermitage's porcine genetics and the creation of an ongoing strategic partnership with Hermitage. This year, the Board approved a strategic relationship with leading Danish pig breeder Møllevang, which became effective on 2 July 2018 and will further enhance our prospects in PIC.

Board and People

We continued to both refresh and strengthen the Board during the year, with the appointment of two Non-Executive Directors. Lesley Knox joined the Board on 1 June 2018. She brings Non-Executive experience from a wide range of major companies and her insights will help the Board to oversee and implement the strategy. Professor Ian Charles was appointed on 1 July 2018. He has deep scientific expertise,

gained during more than 30 years in academic and commercial research organisations. His recruitment ensures we will have a seamless transition, as Professor Duncan Maskell steps down from the Board after the Annual General Meeting in November, to focus on his new role as Vice Chancellor of the University of Melbourne. On behalf of the Board, I thank Duncan for the expertise and guidance he has provided during his four years as a Non-Executive Director and as advisor to our Research and Development Portfolio Management Team.

I also want to thank everyone in Genus for their contribution to our success this year. The Group employs approximately 2,900 people worldwide and all play an important part in delivering for our customers. A special mention goes to the team that built and launched Sexcel and IntelliGen, our ground-breaking sexed bovine genetics technology, who received this year's Chairman's Award. The award recognises teams that have created something truly innovative in response to customers' needs, and whose work is a source of inspiration to colleagues. The foundation of the team's work was laid over a decade ago and has led, through a pioneering spirit coupled with drive, determination and customer focus, to technology with the potential to transform our industry. This is a real demonstration of our values in action, resulting in tangible benefits for our customers and our shareholders.

Summary

This year's progress again demonstrates that the successful execution of Genus's strategy is both delivering strong financial performance and positioning the Group for further success. We therefore look forward to the future with confidence.

Bob Lawson

Chair of the Board
5 September 2018

OUR VALUES

CUSTOMER CENTRIC

We are one team, dedicated to helping customers thrive. We anticipate their needs and help them seize opportunities, acting as partners to improve quality, efficiency and output. If we're not adding value for our customers, we stop and think again.

RESULTS DRIVEN

We are proactive, determined to be the best we can be and to exceed expectations. We redefine standards for ourselves, our customers and our industry. Every one of us takes pride in delivering the highest level of performance. If something can be improved, we find a simpler, better way to do it.

PIONEERING

We are an innovative, forward-thinking company. We have the courage and confidence to explore new ideas and the energy and enthusiasm to deliver them. We are creative, tenacious and resourceful in every area of our work.

PEOPLE FOCUSED

We are a business rooted in science but built around our people. We inspire, challenge and support everyone to perform, develop and grow. We treat others with respect and we invite views and feedback to help us improve.

RESPONSIBLE

We are ethical to our core. We feel a deep sense of responsibility to our customers, colleagues, animals, communities and shareholders. We are honest, reliable and trustworthy. We mean what we say and do what we say.

CHIEF EXECUTIVE'S REVIEW

DELIVERING STRONG

PERFORMANCE



THE LAUNCH OF
SEXCEL WAS A
PARTICULAR
HIGHLIGHT OF
THE YEAR

KARIM BITAR
CHIEF EXECUTIVE



9%

Adjusted profit before tax increase in constant currency

12%

Adjusted operating profit growth in constant currency excluding gene editing costs

2018 was another strong year for Genus, as the Group made substantial positive progress with implementing its strategy and achieved a good financial performance. The launch of Sexcel, our innovative and proprietary bovine sexed genetics product, and the start of sales of our IntelliGen technology to third parties, were particular highlights of the year.

Group Performance

The Group performed positively, with results in line with our expectations. Revenue and adjusted profit before tax rose by 6% and 9% respectively, in constant currency terms. Our medium-term target is to generate double-digit compound growth in adjusted operating profit, in constant currency and excluding gene editing costs. Our growth in this key measure was 12% in 2018.

Currency movements presented a modest headwind. Revenue in actual currency rose by 2% and adjusted profit before tax was 4% higher.

Genus PIC delivered another robust performance, with adjusted operating profit including joint ventures increasing by 5% in constant currency. PIC benefited from growth in Europe, both organically and through last year's acquisition and partnership with Hermitage, and higher profits in Latin America.

Profits in Asia were stable, as growth in genetic sales was offset by reduced farm margins in China, after exceptionally high pig prices in the prior year. Performance in North America showed modest growth, despite the impact of PRRSv infections in the second half of the year at some of the Group's farms. The infections have now been eradicated.

Genus ABS rebounded strongly in 2018, following the successful launch of Sexcel in September 2017 and actions taken last year to sharpen execution. ABS Dairy had a strong year, while ABS Beef made encouraging progress in its strategic initiatives. Overall, Genus ABS increased adjusted operating profits less non-controlling interest by 29% in constant currency, with growth being strongest in Europe and Asia while profits in North America reduced, as we invested in our key account sales force.

As planned, we continued to increase Group investment in R&D, which is delivering strong rates of genetic gain and generating a robust product pipeline. In total, R&D investment rose by 13% in constant currency. This included further growth in the gene editing expense, as we continue to advance the PRRSv resistance programme (see below).

Strategic Progress

Genus successfully implemented a number of important strategic developments during the year. In porcine, we formed a strategic partnership with Møllevang, one of Denmark's leading pig-breeding companies. This became effective on 2 July 2018 and will see us combine our complementary supply chains, sales and marketing infrastructure and genetics. We will strengthen the PIC product offering by increasing genetic diversity, along with offering customers globally superior genetics and service. Lastly, producers in Denmark will have access to PIC's products and global technical services

team, and will benefit from PIC's leadership in genetic improvement.

In Dairy, our majority owned De Novo Genetics joint venture delivered 54% of our Holstein bulls which came into production this year, up from 23% in 2017, enabling us to create our industry leading pipeline of young bulls. Sexcel was successfully launched, with sales ahead of our expectations. Sexcel is delivering a great on-farm experience, with materially better conception rates than alternative products. We have also secured third-party technology licensing and supply deals in Norway and India under the IntelliGen brand. We continue to vigorously defend our position in the US courts against ST. We have filed Inter-Partes Reviews at the US Patent and Trademark Office, seeking to revoke six patents ST has asserted against us, and have also filed a Motion to Dismiss and Counterclaims in the Federal Court.

Our PRRSv resistance programme made further progress, with the first batches of elite gene edited piglets born during the year. Along with future batches of successfully edited piglets, they will be the founders of our gene edited herd, which we will monitor and assess for technical and regulatory purposes. In addition, US and European patent grants have strengthened our ability to protect our intellectual property.

We commenced some important investments during the year in the Group's infrastructure, which will position us well for the long-term. GenusOne is a programme to replace our multiple existing dated business systems over the next three years with a single global modern enterprise system. In addition, in June 2018 we were able to secure land in Wisconsin to meet our requirements for long-term bull housing, which will be built out over the next several years.

People

Genus depends on the skills, talents and dedication of its people and I want to thank all of my colleagues around the world for their contribution to another successful year.

Toward the end of 2017, we ran our third global employee engagement survey, achieving a record response rate. The survey showed that our people are highly engaged, with a strong understanding of our vision, strategy, values and our role in pioneering animal genetic improvement. The survey also helped us identify a number of areas for continuous improvement in our communication and people management. More information can be found on page 37 of this report.

Outlook

The Group's established business model, global market position and product strength, together with our proven strategy based on delivering value to customers through innovation, position Genus well to achieve its medium-term growth objective. In the short term, Genus's customers face a more challenging external environment due to growing barriers to international trade and the recent spread of African Swine Fever to China. Notwithstanding this uncertainty, Genus anticipates further financial and strategic progress in 2019.

Karim Bitar

Chief Executive
5 September 2018

STRATEGY IN ACTION

**SUPERIOR
PRODUCTS
THROUGH**

TECHN

INCREASING GENETIC CONTROL AND PRODUCT DIFFERENTIATION



After a decade of development, in September 2017 we launched our ground-breaking and proprietary sexed bovine genetics technology, under the IntelliGen brand.

We have used this technology to sex our own genetics, which are sold to customers under the Sexcel brand. Since its launch, Sexcel has delivered a statistically significant improvement in fertility performance to our customers, compared with older technology. This is supported by analysis on tens of thousands of data points and, crucially, feedback from our customers. Uptake in Sexcel product globally has exceeded our expectations and now accounts for over 25% of ABS's dairy semen revenues globally.¹

We are also providing our proprietary IntelliGen technology to other studs around the world, enabling them to sex their genetics. So far, these include the Norwegian bovine genetics group Geno and the Mehsana District Co-operative Milk Producers Union in India.

¹ Based on global dairy semen revenues for April to June 2018.

OLOGY



Sexcel represents over

25%

of ABS's dairy semen revenues globally

“

UNTIL WE INTRODUCED OUR TECHNOLOGY, BULL STUDS AND AI CUSTOMERS HAD NO CHOICE IN THE SEXING TECHNOLOGY THEY COULD USE.

INTELLIGEN AND SEXCEL INTRODUCED LONG-AWAITED COMPETITION INTO THE MARKET AND INCREASED CUSTOMER CHOICE. INTELLIGEN HAS ALSO OPENED UP RELATIONSHIPS WITH NEW TYPES OF CUSTOMERS.

JESÚS MARTÍNEZ
GLOBAL DIRECTOR, INTELLIGEN
TECHNOLOGIES

”



STRATEGY IN ACTION

**REALISING
POTENTIAL
THROUGH**

INVEST

TARGETING KEY MARKETS AND SEGMENTS



On 2 July 2018, our previously announced strategic relationship with Møllevang, one of Denmark's leading pig-breeding companies, came into effect.

Møllevang will act as a strategic distribution partner for PIC in Denmark, a Top 10 pig production market globally where PIC previously had no presence. Møllevang will also act as a strategic supply chain partner for PIC in Europe. Its nucleus and multiplication infrastructure will grow the availability of PIC products in Europe. Finally, Møllevang's genetics will be incorporated into PIC's genetic programme. This will provide Møllevang's and PIC's customers with access to accelerated genetic improvement and Møllevang customers will get access to PIC technical services.

25M+ MPEs

Size of Danish market

TMENT



WE WILL WORK WITH MØLLEVANG TO GROW OUR PRESENCE IN DENMARK, STRENGTHEN OUR SUPPLY CHAIN AND STRENGTHEN OUR PRODUCT OFFERING. OUR GOAL IS TO MAKE PIC AND MØLLEVANG CUSTOMERS THE MOST SUCCESSFUL PIG PRODUCERS IN THE WORLD.



DR BILL CHRISTIANSON
CHIEF OPERATING OFFICER OF PIC



STRATEGY IN ACTION

DISCOVERING
VALUE
THROUGH

INNOV

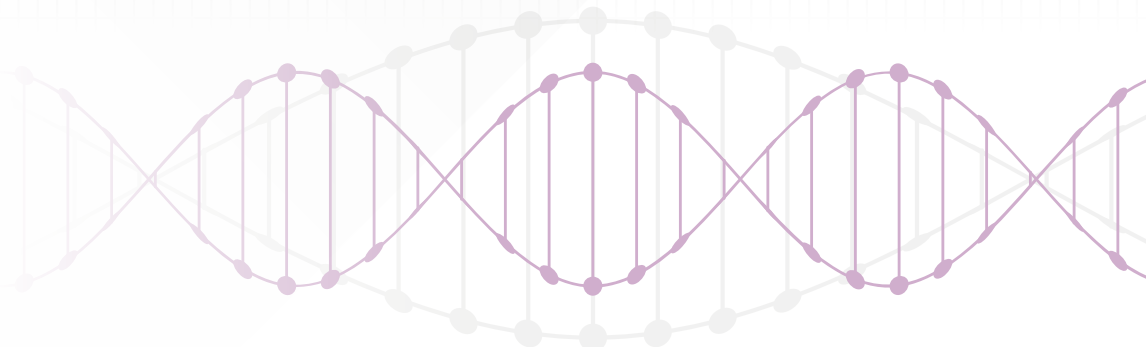
SHARING IN THE VALUE DELIVERED



ABS XBlack is a revolutionary new index created specifically to maximise the profitability of beef producers in Brazil. Launched under our NuEra Genetics™ global brand, it is the first economic index to explore total system profitability in crossbreeding indigenous Nellore cows with European genetics (in the form of semen).

The index harnesses data on performance in tropical conditions. Before we launched ABS XBlack, Brazilian customers could only select their European genetics on data derived from animals raised in very different environments, such as in the US. Now, following the collection of more than 40,000 progeny performance records from over 100 bulls around Brazil, customers can identify European genetics that perform best specifically when bred to indigenous Nellore cows, and that produce an offspring best suited to local production systems.

ABS XBlack is a powerful value discovery tool for our customers. On average European genetics sold through the XBlack index achieved a price premium of over 30% compared with other European genetics.

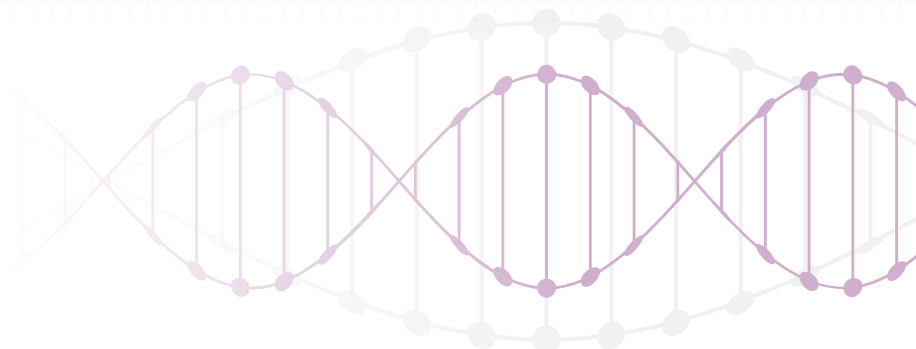
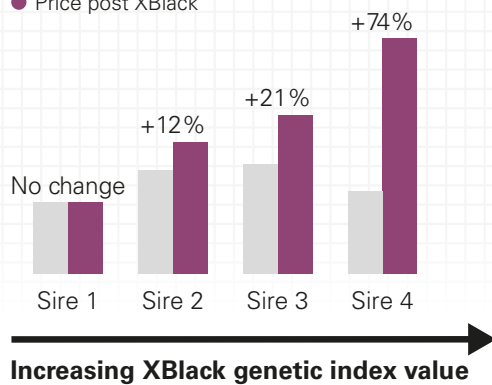


EVOLUTION



CHANGE IN PRICE OF GENETICS POST XBLACK LAUNCH

- Price pre XBlack
- Price post XBlack



DIVISIONAL REVIEW **GENUS PIC**

**HELPING
CUSTOMERS**

GROW



PIC'S ELITE AND PROPRIETARY GENETICS ENHANCE PROFITABILITY IN CUSTOMERS' PRODUCTION SYSTEMS

DR BILL CHRISTIANSON
CHIEF OPERATING OFFICER, GENUS PIC



BUSINESS PRIORITIES

SHORT TERM

- Continue to drive rapid genetic progress, grow our market presence and exploit the opportunities of the Møllevang relationship

MEDIUM TERM

- Strengthen our supply chain (particularly in North America and China) and keep expanding our business in Europe

LONG TERM

- Continue collaborating with colleagues and partners to achieve regulatory acceptance for, and commercialisation of, gene editing technologies

STRATEGIC PROGRESS

During the year, progress against our strategic objectives included:



INCREASING GENETIC CONTROL AND PRODUCT DIFFERENTIATION

- Agreeing a strategic relationship with Møllevang, making it a distributor and an elite genetics production partner for PIC in Denmark, from 2 July 2018
- Introducing the industry's first-ever direct measurement and selection for meat tenderness, giving customers a further indication of meat quality
- Strengthening technical services for customers, blending world-class expertise and on-the-ground support to help them make the most of our genes in their production system



TARGETING KEY MARKETS AND SEGMENTS

- Continuing our progress in Europe, where we delivered growth of 48%, and increasing breeding stock revenue in China by 20%
- Identifying opportunities for expanding and strengthening our supply chain in China
- Integrating Hermitage into PIC's European supply chain and customer operations
- Successfully consolidating our share of business with large producers around the world, so we now work with 75% of the largest global accounts



SHARING IN THE VALUE DELIVERED

- Expanding our programmes, through which we can price to value our most elite terminal sire genes around the world
- Continuing to increase the use of royalty contracts, with 76% of our business conducted on this basis (including eight agreements within China)
- Conducting 26 product trials across eight countries, involving more than 65,000 pigs, to demonstrate the difference our products and services deliver for customers

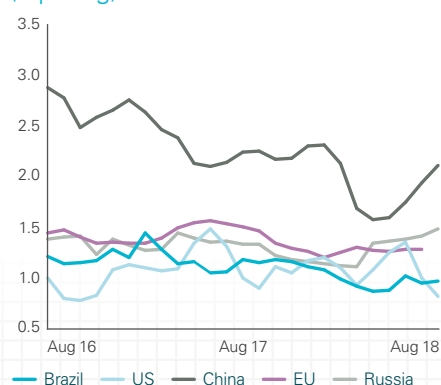
OPERATING REVIEW GENUS PIC

	Actual currency			Constant currency
	2018 £m	2017 £m	Movement %	Movement %
Revenue	247.7	249.5	(1)	3
Adjusted operating profit excl. JVs	88.7	87.7	1	6
Adjusted operating profit incl. JVs	94.8	94.8	–	5
Adjusted operating margin excl. JVs	35.8%	35.2%	0.6pts	1.0pts

Market

Sustained global economic growth in the year under review supported strong demand for pork and expansion of international trade, with global consumption increasing by 2%. With this positive backdrop, producers started the year in an expansionary mode in key markets such as the US, Europe and China. However, over the course of the year, record pork production along with variable input costs, trade disruptions, and disease risks resulted in heightened price volatility and uncertainty.

Pork – Key Markets (£ per kg)



In response to the expansion of major producers, pig prices in China declined sharply throughout the year, although over more recent months a recovery has begun. Meanwhile, in the United States, pig inventories surpassed 73 million head for the first time, as new processing facilities were brought on-line. Prices in the US ended June 2018 5% lower than in the prior year and have fallen substantially further since then. EU production also grew due to increasing productivity and a 1.4% increase in its breeding herd, causing prices to soften 15% through 2018. Brazil was poised for a comeback after a volatile FY17, but increasing feed costs eroded margins and a transportation strike temporarily halted processing at abattoirs.

Political global trade disruptions also added increasing uncertainty for PIC's customers. Russia imposed an embargo on Brazilian pork in the autumn of 2017. In 2018, both China and Mexico enacted tariff schedules for US pork products, in response to US-imposed steel and aluminium import taxes. This resulted in significant falls in US pig futures prices, and along with growing production already in the pipeline, puts US producers in a situation of significant uncertainty for the coming year. In addition, African Swine Fever has been detected in China for the first time in August 2018, which could have substantial effects on the pig industry there and on global trade if eradication efforts are not successful.

The porcine genetics market saw significant change, with Danbred, a top-three global competitor, breaking up into competing groups of breeders. Following this, PIC announced it had agreed to enter into a strategic relationship with Møllevang from July 2018.

Performance

Genus PIC achieved another good performance, with operating profit including joint ventures of £94.8m, up 5% in constant currency. Volumes grew by 8% and revenue was 3% higher, primarily due to 10% higher royalty revenues, partially offset by lower slaughter prices in China on by-product animals and the exit from some non-strategic farms in Europe and Latin America.

In North America, revenue grew 1% in constant currency, driven by royalty growth of 3%. Health breaks in PIC multiplication farms and customer farms, along with PIC's continued investments in expanding the supply chain and upgrading company-owned facilities, restricted North America's profit growth to 1% during the period.

Latin American profits improved by 17%, volumes improved 10% and revenue in constant currency was

up 11%, with growth in all regions. A key contributor to this growth was royalty revenue, which increased by 15%. Profit performance from PIC's joint venture in Brazil was up by 14% in constant currency.

Europe achieved impressive growth, with volumes up 15%, royalty revenues up 32% and constant currency profits up 48%, driven by customer wins and strategic pricing initiatives. The integration of the Hermitage key accounts and distribution partnership also contributed positively to growth in Europe, which was in line with our expectations. The integration of PIC's strategic relationship with Møllevang and further synergies from the partnership with Hermitage will contribute to further growth for PIC Europe going forward.

Asia's profits were 1% higher in constant currency compared with 2017, with strong growth in most countries, driven by volume growth of 19% and royalty revenue growth of 31% in the region. However, China experienced weakening market prices for by-product pigs and biosecurity challenges in the supply chain. This resulted in China's profits being 15% lower against a strong prior year, despite growth being achieved in royalties (+29%), volumes (+44%) and breeding stock profits (+24%). PIC's strategy to focus on key large-scale customers in emerging markets, while mitigating operational risks, continues to position PIC for good long-term prospects in the Asia region.

Overall, PIC delivered good results, despite varying global market conditions and continued investment to enhance product supply and differentiation. PIC's long-term global business model and strategic relationships such as those with Hermitage and Møllevang, will enable PIC to continue to better serve customers, mitigate market risks and support future growth through challenging markets.

DIVISIONAL REVIEW GENUS ABS

ACHIEVING STRONG

GROWTH



JERRY THOMPSON
CHIEF OPERATING OFFICER, GENUS ABS BEEF



SEXCEL'S LAUNCH HAS ENABLED US TO DRIVE GROWTH IN BOTH DAIRY AND BEEF GENETICS



DR NATE ZWALD
CHIEF OPERATING OFFICER, GENUS ABS DAIRY

STRATEGIC PROGRESS

During the year, progress against our strategic objectives included:



INCREASING GENETIC CONTROL AND PRODUCT DIFFERENTIATION

- Successfully launching Sexcel – our proprietary bovine sexed genetics product – globally, supported by processing facilities in the US and India
- Significantly strengthening our dairy bull line up through De Novo produced genetics
- Introducing Icon Sires™, to give customers early access to elite dairy genetics, in return for the option to buy progeny at a pre-set price and breeding rights to any bulls
- Continuing to evolve NuEra Genetics, our proprietary beef range, by introducing NuEra bulls to our US beef-on-dairy offer and achieving top rankings in BeefAdvantage, EMEA's beef-on-dairy index



TARGETING KEY MARKETS AND SEGMENTS

- Harnessing Sexcel to strengthen relationships with dairy farmers across EMEA
- Enhancing our focus on large dairy accounts, particularly in the US, with whom we partner on both genetic improvement strategy and operational activities
- Increasing sales of embryos by 20%, as we continue to engage larger customers with the benefits embryos offer as a genetic improvement platform
- Expanding our range of economic indices for beef, introducing the proprietary XBlack index in Brazil to identify the most profitable genetics for crossbreeding in tropical conditions



SHARING IN THE VALUE DELIVERED

- Exploring a transition to performance-based pricing, based on helping progressive dairy farmers achieve their genetic improvement goals
- Using our growing range of indices to align pricing of the most profitable genetics with the value they deliver

BUSINESS PRIORITIES

SHORT TERM

- Grow strategic relationships with customers around the world, becoming their genetic adviser of choice and leveraging the strength of Sexcel and our product portfolio

MEDIUM TERM

- Strengthen our range of proprietary products and indices and continue exploring opportunities created by Sexcel (for both beef and dairy customers)

LONG TERM

- Expand our product validation programme as a basis for enhancing our share of the value we deliver for customers

OPERATING REVIEW GENUS ABS

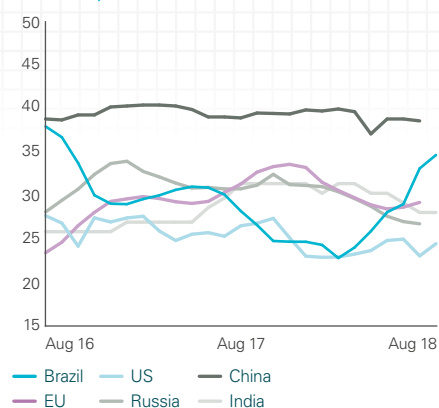
	Actual currency			Constant currency
	2018 £m	2017 £m	Movement %	Movement %
Revenue	210.6	195.9	8	11
Adjusted operating profit	26.2	22.3	17	23
Adjusted operating profit less non-controlling interest	26.1	21.3	23	29
Adjusted operating margin	12.4%	11.4%	1.0pts	1.2pts

Market

Following robust growth in milk output in the first half of the year, challenging weather conditions in key exporting countries caused growth to slow in the second half, which in the US and Europe was contrary to market expectations. Increased feed prices also capped growth in milk volumes. China's dairy market continues to grow and influence the global demand for dairy products, with imports increasing in 2018.

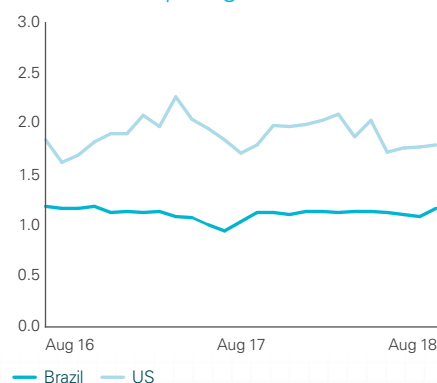
Global dairy markets entered the financial year reflecting optimism, as nearly all dairy indices had recovered from the previous down cycle. Dairy prices remained strong through the early part of this financial year but fell off as the year progressed, with the US and EU down 8% and 15% respectively since November 2017. Growing tension around trade and tariffs has increased the level of uncertainty for farmers, particularly in the US. US beef production continues to be affected by drought conditions in some areas, forcing animals to be placed into feed lots early and potentially affecting consistency of supply into the latter part of 2018. In addition, feed cost increases will not encourage producers to raise heavy animals, which may constrain supply.

Dairy – Key Markets (Pence per litre)



Influenced by local market conditions, prices for cattle remain diverse, being up in Brazil, Europe and China, but down in the US, Australia and New Zealand. This volatility is likely to remain affected by seasonality of supply, changing feed prices and the availability of other sources of protein in markets such as Brazil. In addition, the impact of tariffs on the global beef trade is increasing uncertainty for producers.

Beef – Key Markets (Live cattle £ per kg)



Continuing consolidation of the global dairy industry and of high-quality breeding herds has also pushed bovine genetics suppliers to consolidate, with it being increasingly important for them to own and control their genetics, as ABS has done through De Novo.

Performance

Performance was strong, with operating profits for ABS increasing by 29% in constant currency, on a 5% volume increase and an 11% increase in revenue. Sexed volumes were up 25%, reflecting the successful launch of Sexcel, and sales of inventory produced under the contract with ST, which terminated in August 2017. Increased usage of sexed genetics also led to increased use of beef genetics in dairy herds, supporting an 8% increase in global beef volumes.

In Europe, profits were up 12% in constant currency, with volumes increasing 4% in generally favourable markets for producers. The trend of dairy customers using sexed genetics, coupled

with beef genetics for a portion of the herd, continued. As a result, beef volumes increased by 7%, beef selling prices increased by 9%, due to focus on the value of differentiated beef genetics, and sexed semen volumes grew 24%, with strong customer acceptance of Sexcel.

In North America, profits decreased by 17% in constant currency. Volumes were up by 2%, with sexed volumes up 29%, and revenue grew by 5%, but this was offset by planned investment to strengthen the focus on key account management. Beef volumes were up 19% over the prior year, reflecting stable beef market conditions and the use of beef genetics on dairy herds, supported by proprietary NuEra genetics selected for cross-bred beef-on-dairy performance.

In Latin America, profits were up 4% in constant currency, with conventional dairy volumes increasing 4% and sexed semen 8%. Beef volumes were up 5%, despite challenging market conditions and lower domestic beef consumption in Brazil. NuEra genetics, selected for cross-bred performance of North American sires with tropical cows, proved popular with customers.

In Asia, volumes were up 8% and profits up 36%, with growth across all major countries. Profits were up 242% in Russia, 81% in Australia and 29% in Japan. Asia also successfully launched Sexcel from our Brahma stud in India, to provide elite sexed genetics into the Indian market for the first time, leading to more than 100% profit growth.

IVB grew embryo volumes by 20% and revenues by 24%. However, investments to establish new laboratories held back profit growth to 8%, including non-controlling interest. IVB was fully integrated into the regional structure of ABS at the end of the period.

Overall, ABS delivered a much improved performance and, with the increasing customer adoption of Sexcel and a leading genetic portfolio, anticipates continued progress.

DIVISIONAL REVIEW **GENUS R&D**

**DRIVING
GENETIC**

PROGRESS



WE ARE USING PROPRIETARY TECHNOLOGY AND INNOVATION TO DRIVE FASTER GENETIC PROGRESS, TO BENEFIT CUSTOMERS, THEIR ANIMALS AND THE PLANET

DR JONATHAN LIGHTNER
CHIEF R&D AND SCIENTIFIC OFFICER



DIVISIONAL PRIORITIES

SHORT TERM

- Increase capacity to meet growing demand for our proprietary sexed genetics technology and build capabilities for successfully engaging with regulators regarding gene edited animal proteins

MEDIUM TERM

- Progress our regulatory filings for PRRSv gene editing work

LONG TERM

- Achieve a proof of concept resilience test for Bovine Respiratory Disease

STRATEGIC PROGRESS

During the year, progress against our strategic objectives included:



DIFFERENTIATED PRODUCTS FROM GENOMIC SELECTION

- Continuing to harness genomic science to drive porcine genetics that benefit animals and customers, for example, improving piglet resilience to reduce pre-wean mortality
- Achieving industry leading elite and proprietary dairy genetics through De Novo Genetics, our joint venture with De-Su Holsteins
- Increasing the number of dairy sires ranking highly for TransitionRight™ traits, which improve daughters' resilience to health problems in the period after giving birth
- Continuing to grow our range of proprietary selection indices for beef genetics, based on identification of the drivers of profitability in target markets and segments



GENE EDITING

- Conducting in-house genome editing of beef and dairy embryos to target the CD18 gene, seeking proof of concept that a single change to this gene can improve resilience to Bovine Respiratory Disease
- Working with our joint venture partner, RenOVate Biosciences, to edit the CD163 gene in elite PIC genetics, to produce pigs which resist PRRSv infection, and having patents issued in the US and Europe



GENDER SKEW

- Using our proprietary technology to produce Sexcel for Genus ABS, establishing a new quality standard for sexed bovine genetics and giving customers a major performance advantage
- Establishing IntelliGen Technologies to market and license our technology to third parties, signing agreements with partners in Norway and India (the world's largest dairy market)

OPERATING REVIEW GENUS R&D

	Actual currency			Constant currency
	2018 £m	2017 £m	Movement %	Movement %
Porcine product development	17.0	16.6	2	8
Bovine product development	17.2	15.3	12	18
Gene editing	5.0	3.5	43	46
Other research and development	7.6	8.4	(10)	(2)
Net expenditure in R&D less non-controlling interest	46.8	43.8	7	13

Performance

As planned, R&D investment increased by 13% in constant currency to £46.8m, primarily due to the launch of IntelliGen and the development of gene editing initiatives. The Group's R&D investments are expected to continue to increase in 2019, as we continue to execute our strategy of delivering proprietary differentiated products that customers value.

Within porcine product development, the continued implementation of single-step genomic evaluation across all porcine pure line populations, crossbred products and traits resulted in further strong genetic gain. Genus has continued to drive the rate of genetic gain 35% faster compared with the period before the implementation began. During the year, Hermitage was transitioned to PIC genetics and integrated into Genus's programme. The 8% spending growth was a result of expanding genetic testing and product validation and investment, to identify unique new traits such as meat tenderness.

Bovine product development expense increased by 18%, primarily due to the start of amortisation of previously capitalised IntelliGen development costs and continued development of the platform. This included work to further increase the performance of the IntelliGen instruments, refine biological processes and ensure continuous improvement in processing and cost performance. In addition, to further expand the IntelliGen footprint globally, Genus continues to drive business development opportunities in technology transfer and external customer service.

The dairy product development effort has continued to benefit from the integration of De Novo Genetics, a majority owned company created in September 2016 with De-Su Holsteins. As a result, Genus substantially improved the quality of its industry leading dairy bull portfolio, while also improving the focus of the operation and reducing costs. Genus continues to grow its genomic database and Real World Data collection and is exploring new proprietary traits. In beef, there was continued investment in building proprietary differentiated customer products that maximise value in the beef supply chain, through genetic improvement in Genus's beef nucleus herd.

Gene editing expenditure increased by 46% in the year, primarily associated with the porcine PRRSv resistance project and, to a lesser extent, work on investigating bovine respiratory disease. In porcine, Genus worked with RenOVate Biosciences, its co-founded gene editing company, to produce the first-generation gene edited pigs in elite purelines. The population size is now being expanded through matings of these animals, with pregnancies established for the next generation. Genus also advanced its regulatory engagement with the FDA and had patents issued in the US and Europe. Gene editing costs will continue to grow as the number of animals carrying the edit is increased and initial regulatory submissions are prepared.

Industry leading research continued in developing genomic selection approaches to drive genetic improvement and differentiation even faster, along with investments in intellectual property creation and protection.

FINANCIAL REVIEW



GENUS DELIVERED STRONG FINANCIAL PERFORMANCE, IN LINE WITH OUR MEDIUM-TERM OBJECTIVES

STEPHEN WILSON
GROUP FINANCE DIRECTOR



In the year ended 30 June 2018, Genus achieved a good financial performance which was in line with our objectives. Constant currency revenue growth was 6% (2% in actual currency) and adjusted operating profit growth including joint ventures was 10% (5% in actual currency), after increased investment in R&D. Excluding the growth in gene editing costs, adjusted operating profit increased by 12% in constant currency. Adjusted profit before tax and adjusted earnings per share were also up 9% and 15% respectively (4% and 9% in actual currency).

On a statutory basis, profit before tax was 81% lower, primarily due to a lower non-cash IAS 41 valuation of our bovine biological assets. However, statutory earnings per share were 30% higher, boosted by a £32.5m non-cash reduction in Genus's deferred tax liabilities, following tax reforms in the US. These deferred tax liabilities primarily relate to the Group's biological assets. We continue to use adjusted results as our primary measures of financial performance, as they better reflect our 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 £3.0m or 5% compared with 2017. Unless stated otherwise, the financial and operating reviews quote constant currency adjusted growth rates.

Revenue

Revenue increased by 2% in actual currency and 6% in constant currency to £470.3m (2017: £459.1m). In Genus PIC, revenue growth of 3% in constant currency (1% down in actual currency) was supported by strong royalty revenue growth of 10%, with growth in all regions and Asia up 31% and Europe up 32%, while by-product revenues were lower as market pig prices reduced in China, following exceptionally high pig prices in the prior year, and we exited certain non-strategic farms. In Genus ABS, revenues grew 11% in constant currency (8% in actual currency) with all regions making a positive contribution. This included double-digit growth in Europe, Asia and IVB, and sexed product revenue growth of 27%, following strong uptake of Sexcel, our high-fertility sexed genetic product launched early in the year.

Adjusted Operating Profit Including Joint Ventures

Adjusted operating profit including joint ventures was £63.1m (2017: £60.1m), up 5% in actual currency and 10% in constant currency. Within this, Genus's share of adjusted joint venture operating profits was lower at £6.2m (2017: £7.1m) and, following the acquisition of the remaining 49% of IVB in March 2017, amounts attributable to non-controlling interests reduced to £0.8m (2017: £2.1m). Our gene editing investment, which is focused on creating resistance in pigs against PRRSv, a devastating disease for the industry, increased to £5.0m (2017: £3.5m). Excluding this investment, adjusted operating profit increased by 12% in constant currency.



	Actual currency			Constant currency ²
	2018 £m	2017 £m	Movement %	Movement %
Adjusted results¹				
Revenue	470.3	459.1	2	6
Operating profit incl. JVs excl. gene editing	68.1	63.6	7	12
Operating profit incl. JVs	63.1	60.1	5	10
Profit before tax	58.5	56.4	4	9
Basic earnings per share (pence)	75.9	69.4	9	15

	Actual currency		
	2018 £m	2017 £m	Movement %
Statutory results			
Revenue	470.3	459.1	2
Operating profit	8.2	38.2	(79)
Profit before tax	7.8	40.7	(81)
Profit after tax	41.6	34.3	21
Basic earnings per share (pence)	69.7	53.8	30
Dividend per share (pence)	26.0	23.6	10

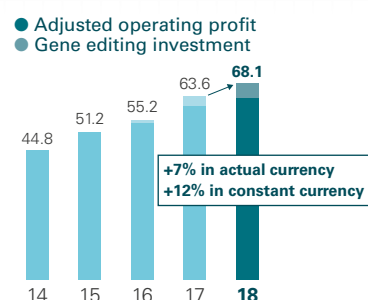
- Adjusted results are before net IAS 41 valuation movement on biological assets, amortisation of acquired intangible assets, share-based payment expense and exceptional items. Adjusted results are the alternative performance measures used by the Board to monitor underlying performance at a Group and operating segment level. They are consistently applied throughout.
- Constant currency percentage movements are calculated by restating the results for the year ended 30 June 2018 at the average exchange rates applied to adjusted operating profit for the year ended 30 June 2017.

Exchange rates	Average		Closing	
	2018	2017	2018	2017
US Dollar/£	1.35	1.27	1.32	1.30
Euro/£	1.13	1.16	1.13	1.14
Brazilian Real/£	4.51	4.11	5.12	4.30
Mexican Peso/£	25.37	24.61	26.30	23.51

	Actual currency			Constant currency
	2018 £m	2017 £m	Movement %	Movement %
Adjusted profit before tax¹				
Genus PIC	94.8	94.8	–	5
Genus ABS	26.1	21.3	23	29
R&D	(46.8)	(43.8)	(7)	(13)
Central costs	(11.0)	(12.2)	10	6
Adjusted operating profit incl. JV	63.1	60.1	5	10
Net finance costs	(4.6)	(3.7)	(24)	(24)
Adjusted profit before tax	58.5	56.4	4	9

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

Adjusted Operating Profit Including JVs Excluding Gene Editing Investment (£m)



Genus PIC had another solid year, with adjusted operating profit including joint ventures up 5%. Volume growth of 8% included double digit growth in Latin America, Europe and Asia. The European business transformation is continuing to drive strong results and the recently completed strategic relationship with Møllevang, one of Denmark's leading pig-breeding companies, will continue this momentum.

Genus ABS had a strong year. Adjusted operating profit less non-controlling interest increased 29%, with volume growth of 5%. The launch of Sexcel

in September 2017 helped to fuel strong sexed volume growth of 25%, along with higher prices and at lower production costs than its predecessor. Double-digit growth in Europe was driven by strong performances in Italy, France and Ireland and also in our beef-on-dairy offering, where the differentiated value of our beef genetics supported prices. Asia also performed strongly, up 36%, with all countries growing. North American volumes were up 2% and we invested to strengthen the focus on key account management. IVB also continued to grow, with embryo volumes up 20%.

FINANCIAL REVIEW

R&D costs increased by 13%, as planned, primarily from a 46% increase in gene editing as we develop our first batches of gene edited elite pigs. Bovine product development also increased by 18%, with the start of amortisation of previously capitalised IntelliGen development costs and the continued development of the platform.

Net Finance Costs

Net finance costs increased to £4.6m (2017: £3.7m) due to higher average borrowings and lower interest income following the investments made in the prior year, including the acquisitions of Hermitage for £15.2m and the remaining 49% of IVB for £11.4m.

Exceptional Items

There was a £5.9m net exceptional expense in 2018 (2017: £2.5m), which included £5.0m for legal fees related to Genus ABS's litigation with ST, £1.2m for acquisition and integration related expenses, primarily relating to Møllevang and Hermitage, and other items totalling a credit of £0.3m. The prior year contained an exceptional credit of £5.7m in respect of the arrangements for National Milk Records plc ('NMR') exiting the Milk Pension Fund in June 2017.

Statutory Profit Before Tax

Our statutory profit before tax was £7.8m (2017: £40.7m), with the decline primarily due to a non-cash

fair value reduction of £28.7m (2017: £1.1m) in the net IAS 41 biological asset movement. Within this, there was a £5.3m (2017: £27.4m) uplift in porcine biological assets offset by a £34.0m (2017: £28.5m) reduction in bovine biological assets, due to the continuing trend towards sales of genomic semen and current estimates of the proportion of the semen sales price attributable to the biological asset value. Also impacting statutory profit was amortisation of acquired intangible assets of £9.5m (2017: £8.7m) and share-based payment expense of £5.4m (2017: £4.6m). These items tend to be non-cash, can be volatile and do not correlate to the underlying trading performance in the period.

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

Taxation

The effective rate of tax for the year, based on adjusted profit before tax, was 20.5% (2017: 25.0%) benefiting from a £2.4m credit from the reduction of deferred tax liabilities in the US following the enactment of US tax reforms. Excluding this one-off credit, the underlying tax rate on adjusted profits would have been 24.6%, reflecting a higher mix of profits in lower tax jurisdictions compared with the prior year. The effective rate remains higher than the UK corporate tax rate due to the mix of overseas profits, particularly

the proportion of profits generated in the US and Latin America, and the impact of withholding taxes on the repatriation of funds to the UK. These effects are partly mitigated by the availability of manufacturing relief, R&D credits and agricultural reliefs in certain jurisdictions.

The tax rate on statutory profits was a credit of 347% (2017: 18.5% charge), 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 increased by 9% to 75.9 pence (2017: 69.4 pence) and were up 15% in constant currency. Basic earnings per share on a statutory basis were 69.7 pence (2017: 53.8 pence), up 30%, with the non-cash fair value accounting reduction in bovine biological assets more than offset 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 2018, the carrying value of biological assets was £363.0m (2017: £375.3m), as set out in the table below:

	2018 £m	2017 £m		2018 £m	2017 £m
Adjusted profit before tax	58.5	56.4	Biological assets		
Operating profit attributable to non-controlling interest	0.8	2.1	Non-current assets	305.8	309.3
Net IAS 41 valuation movement on biological assets in JVs and associates	(0.5)	0.5	Current assets	37.0	43.8
Tax on JVs and associates	(1.5)	(1.4)	Inventory	20.2	22.2
Adjusting items:				363.0	375.3
Net IAS 41 valuation movement on biological assets	(28.7)	(1.1)	Represented by:		
Amortisation of acquired intangible assets	(9.5)	(8.7)	Porcine	238.8	215.6
Share-based payment expense	(5.4)	(4.6)	Dairy and beef	124.2	159.7
Exceptional items	(5.9)	(2.5)		363.0	375.3
Statutory profit before tax	7.8	40.7			

The movement in the overall balance sheet carrying value of biological assets, excluding the effect of exchange rate translation decreases of £8.8m, includes:

- a £27.6m increase in the carrying value of porcine biological assets, due principally to accounting for the genetics acquired under the strategic relationship with Møllevang, as all material conditions for completion of the transaction under the terms of the subscription agreement were fulfilled at the balance sheet date; and
- a £31.1m reduction in the bovine biological assets value, due to the continuing trend towards sales of genomic semen, resulting in shorter productive lives of bulls, and current estimates, based on market data, of the proportion of the semen sales price attributable to the biological asset value.

The historical cost of these assets, less depreciation, was £51.0m at 30 June 2018 (2017: £51.5m), which is the basis used for the adjusted results. The historical cost depreciation of these assets included in adjusted results was £6.4m (2017: £7.0m).

Retirement Benefit Obligations

The Group's retirement benefit obligations at 30 June 2018, calculated in accordance with IAS 19 and IFRIC 14, were £33.9m (2017: £40.9m) before tax and £27.9m (2017: £32.4m) net of related deferred tax. The largest element of this liability relates to the multi-employer Milk Pension Fund, where we account for this scheme on the basis of Genus being responsible for 86% of the scheme since the exit of NMR (2017: 85%).

During the year, contributions payable in respect of the Group's defined benefit schemes amounted to £7.3m (2017: £7.2m).

	2018 £m	2017 £m
Cash flow (before debt repayments)		
Cash generated by operations	58.3	46.3
Interest and tax paid	(15.1)	(11.7)
Capital expenditure	(22.5)	(18.9)
Cash received from JVs	2.8	8.3
Other	0.8	1.4
Free cash flow	24.3	25.4
Acquisitions and investments	(1.8)	(30.0)
Dividends	(14.9)	(13.5)
Net cash flow	7.6	(18.1)

Cash Flow

Free cash flow was solid at £24.3m (2017: £25.4m), driven by strong cash generated by operations of £58.3m (2017: £46.3m), representing conversion of adjusted operating profit of £57.7m (2017: £55.1m) into cash of 101% (2017: 84%). Cash inflows from joint ventures were lower at £2.8m (2017: £8.3m) following a very strong prior year.

Capital expenditure cash flows of £22.5m (2017: £18.9m) included continued investment in IntelliGen machines as we ramped up production capacity, an initial payment for the purchase of land to house future North America production facilities for the ABS business and the first stage of the GenusOne new enterprise system.

The cash outflow from investments was £1.8m, primarily relating to deferred consideration for previously acquired businesses. This compares to £30.0m in 2017 from the acquisition of De Novo Genetics, Hermitage Genetics and of the remaining 49% of IVB. The total cash inflow for the year after these investments and dividends was £7.6m (2017: outflow £18.1m).

Net Debt

Net debt decreased from £111.6m to £108.5m at 30 June 2018, with increased capital investment in the business being more than offset by strong cash generation. During the year, we exercised an accordion feature in our credit facilities to increase them by £20.0m, in anticipation of payments to Møllevang in July 2018. At the end of June 2018, there was substantial headroom of £99.3m under the extended facilities of £220.0m.

The Group's financial position and borrowing ratios remain strong, with interest cover remaining at 25 times (2017: 37 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 1.4 times (2017: 1.5 times) with net debt slightly lower and an increased EBITDA.

Return on Invested Capital

We measure our 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 increased to 23.9% after tax (2017: 19.9%), reflecting the increase in adjusted profit and lower tax rate in the year.

Dividend

Reflecting the Board's continuing confidence in the Group's prospects, it is recommending to shareholders a final dividend of 17.9 pence per ordinary share, resulting in a total dividend for the year of 26.0 pence per ordinary share, an increase of 10% for the year. Dividend cover from adjusted earnings remains consistently strong at 2.9 times (2017: 2.9 times).

Stephen Wilson

Group Finance Director
5 September 2018

PEOPLE AND CULTURE

LEADING TODAY, TRANSFORMING TOMORROW



OUR PEOPLE PLAY A CRUCIAL ROLE IN HELPING US PURSUE OUR STRATEGIC GOALS AND UPHOLD THE CORE VALUES THAT UNDERPIN OUR ORGANISATION. WE ENGAGE, EQUIP AND SUPPORT THEM TO ACHIEVE THEIR FULL POTENTIAL WHILE BUILDING OUR BUSINESS

ANGELLE ROSATA
GROUP HR DIRECTOR



A Diverse Team

We are a global company and employ approximately 2,900 people in 25 countries. They range from geneticists to livestock technicians, veterinarians to accountants, all working together to pursue our vision.

We are an increasingly diverse, multinational organisation. One example is gender diversity: 32% of our workforce are women, and 27% of our managers: we are looking to increase that number.

An Inclusive Culture

Our work is underpinned by five core values, which our people helped to shape. They inform a culture that is engaging, fair and respectful. We are a passionate, high-performing team, that is also open and supportive. We communicate regularly regarding business plans and progress and we proactively seek employee feedback and ideas.

A Thirst for Great People

We are always looking to develop existing employees and bring in new talent to challenge current thinking, improve ways of working and fuel

further growth. This year, for example, we employed more than 180 colleagues, with nearly 120 hired to scale up operations for IntelliGen Technologies, including a whole new team to produce Sexcel in India.

We also established a graduate programme for ABS in EMEA, introduced a university internship programme for ABS in North America and established best-in-class global recruitment and onboarding practices to PIC's owned production facilities.

A Global Framework

We maintained and regularly reviewed our comprehensive set of global policies for employees, including our Anti-Harassment and Diversity and Inclusion policy and a range of health and safety policies (health and safety is covered in this report's 'Responsibility' section). These policies shape the way we work. They ensure employees have a clear framework in which to carry out their role and can do so in a safe environment that is free from discrimination.

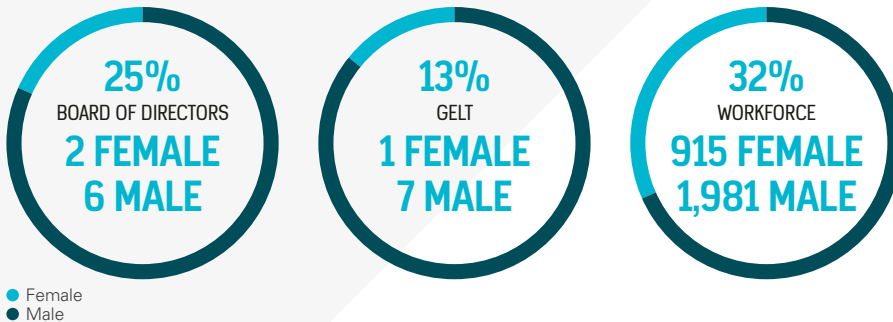
We publish all our policies and support them with periodic training where relevant. Our indicators (including employee survey feedback and health and safety statistics) show these are being implemented consistently. There are many routes through which employees can raise concerns, from informal feedback to our formal grievance procedure. We follow the same investigative procedure referenced in this report's Anti-Bribery and Corruption section (see opposite).

During the year, we continued to strengthen our global framework for managing people. Everyone has a performance discussion twice a year to review their progress, future aims and support needs. Managers are supported by HR Business Partners to help everyone make the most of this process.

We invest in people at all levels, from senior leaders to front-line employees.



GENDER DIVERSITY



We develop leaders from around the world to nurture the talent we need to improve, innovate and support our customers. We encourage individual development plans and run specific programmes for different groups, from training for people managers and supervisors to technical skills training for front-line employees. As a global company, we encourage our people to gain experience of working in other countries to develop global business knowledge and cross-cultural agility.

Improvement in Health and Safety

We prioritise the safety of employees and the well-being of our animals. We reduced overall injuries by 2% and animal-related injuries by 1% (despite working with a larger number of animals during the year). We increased reporting of 'near misses' in key regions across the company by 60%.

Anti-Bribery and Corruption

Our Anti-Bribery and Corruption policy sets out our responsibilities, and those of people working with us, to act professionally, fairly and with integrity in all business dealings. We have a zero-tolerance approach to any form of bribery, inducement or corrupt practice. All employees undertake mandatory annual training on this policy and must achieve 100% in a post-training test.

The training is supported by our Whistleblowing policy, which confirms an obligation to report any concerns about unethical behaviour and explains the process for doing so (including a confidential reporting hotline, managed

by an independent third party). Any concerns reported are immediately referred to the Group General Counsel & Company Secretary and are then investigated and discussed accordingly with our Group HR Director, Head of Internal Audit and the company's Audit Committee. This process is regularly reviewed as part of our annual Audit Committee activity.

Human Rights

Genus is committed to respecting the human rights of workers throughout our value chain and the local communities in which we operate. We aim to ensure that anyone who might be affected by Genus can enjoy the human rights described in the International Bill of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work.

This principle has underpinned our work for years and is being incorporated within a new, global employee handbook. We monitor it through the same process used for the policies outlined earlier and there were no specific issues identified during the year.

Looking Ahead

In the coming year, we will continue inspiring, challenging and supporting our people to perform, develop and grow. This will help us strengthen relationships with customers and build our business.

YOUR VOICE

In November 2017, we ran our third global employee engagement survey, Your Voice, to explore employee views of working at Genus.

We achieved a record response rate of 82%, with contributions from more than 2,200 colleagues. Global results showed higher scores than our last exercise (in 2015), with highlights including:

Question	2017	2015
I understand our vision	90%	89%
I understand the Genus business strategy	80%	79%
The Genus values help me decide the right thing to do	78%	73%
I think the Genus leaders are taking the Company in the right direction	82%	76%
I think we are pioneering animal genetic improvement	93%	87%
Genus regularly improves products and services relative to those of its competitors	82%	71%

We also identified areas in which we could improve, such as strengthening people management capabilities at different levels of the organisation and enhancing clarity over career paths within the Company.

We received breakdowns of results from our businesses and markets and, for the first time, specific results from individual teams (where there were six or more responses). We provided detailed materials to help managers hold feedback and action planning sessions with their teams and we are now engaged in implementing the resulting local, business unit and company-wide actions.



VISIT: WWW.GENUSPLC.COM/WORK_FOR_US/ TO LEARN ABOUT GENUS AS AN EMPLOYER.

CORPORATE RESPONSIBILITY

A DEEP SENSE OF RESPONSIBILITY

PRINCIPLES IN PRACTICE

Our work enhances the supply of safe, affordable and high-quality milk and meat. In a world with a growing population but finite natural resources, farmers need to produce animal protein more efficiently than ever before. Our innovative work and leading-edge technology helps them to do this, delivering more nourishment to people around the world.

We carry out our work with a deep sense of responsibility to animals, colleagues, customers and communities. 'Responsible' is one of our five core values, which were shaped by the people who work here. As a global company – operating in many different countries, with contrasting contexts and circumstances – we have established a range of core policies and principles on areas relevant to our business and help our countries apply them locally.

Examples include principles around animal well-being (explaining our zero-tolerance approach to any mistreatment of animals), environmental practices and a range of policies around health and safety (helping colleagues follow safe working practices).

We publish all our policies for employees and support them with guidance and training. For example, all employees are assigned annual training on animal well-being, whether or not they work directly with animals, and we provide further in-depth training for anyone working with animals regularly. There are many routes through which employees can raise concerns including the independent whistleblowing hotline explained earlier in this report.



PIC GENETIC IMPROVEMENT FOOD QUALITY AND SECURITY

PIC harnesses the latest science and technology to develop differentiated products that advance food quality and availability, while improving animal welfare and reducing environmental impact. For example, as producers seek to expand litter size, PIC's focus on increasing birth weight is helping to reduce piglet mortality. Developing the best feed conversion rate in the industry (so less feed is needed to drive desired weight gain) and improving animal growth rates also reduces environmental impact.

SOLAR PANELS AT DEKORRA COVERING ENVIRONMENT

The Genus ABS site at Dekorra is installing solar panels to reduce electricity use and cut carbon emissions. The panels will be sited near a production barn and are expected to generate at least one third of the energy needed for that area each year. The installation is the start of a wider programme to harness renewable energy on the site.

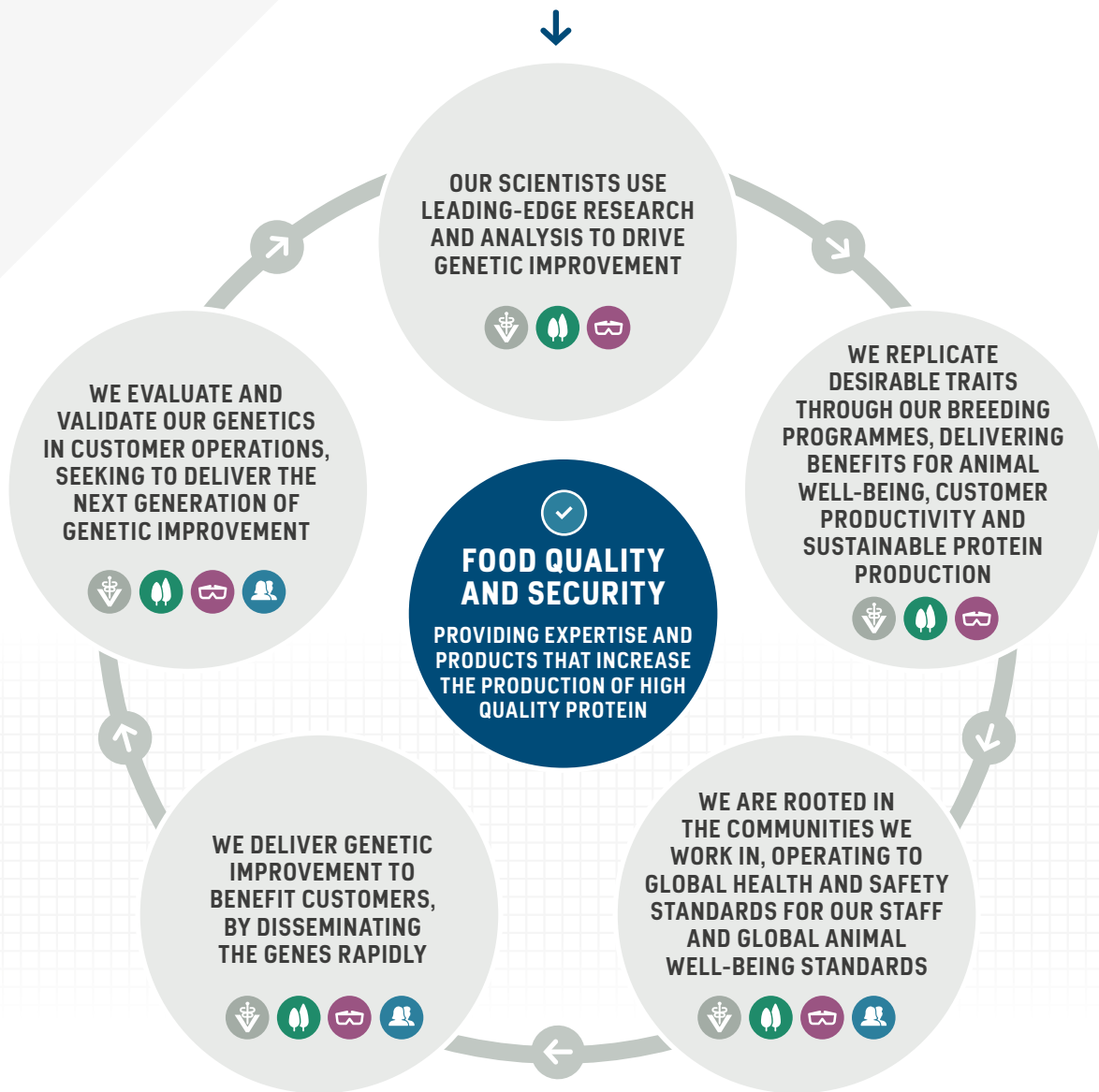
ABS SEXCEL™ IN INDIA COVERING COMMUNITY

Arshi, the first female calf born from using Sexcel in India, arrived on 6 March 2018. She shows how Sexcel is helping farmers produce female calves, rather than male offspring which cannot contribute to milk production but, as sacred animals, cannot be culled, leaving farmers with costly, non-productive animals.

A CLEAR FRAMEWORK FOR RESPONSIBLE DEVELOPMENT OF FOOD QUALITY AND SECURITY

We have developed our own five-part framework to guide and focus our efforts. It is built on five 'pillars', covering areas and issues highly relevant to our work and our impact on the world around us.

'Food Quality and Security' is at the very core of what we do as a business. The diagram below describes how our corporate responsibility approach works with our business cycle.



ANIMAL WELL-BEING → Continually improving animal well-being through proven science-based initiatives

OPERATE SAFELY → Ensuring a safe working environment for colleagues

ENVIRONMENT → Reducing the impact of protein production

COMMUNITY → Being a responsible corporate citizen within our communities

CORPORATE RESPONSIBILITY

LEADING FROM THE FRONT

We have established a Corporate Social Responsibility ('CSR') Committee to oversee our framework and activity. This comprises experts from around our global company and reports to the Genus Executive Leadership Team.

The Committee sets our CSR strategy, articulates annual objectives and monitors progress.

The key performance indicators for monitoring and reporting our

performance, and our plans for 2019, are summarised below.

For more information on our work, progress and CSR Committee, please visit our dedicated website: www.genusplc.com/responsibility.

PROGRESS UPDATE

WHAT WE DO

HIGHLIGHTS IN THE YEAR

WHAT WE PLAN TO DO NEXT

FOOD QUALITY AND SECURITY

Providing expertise and products that increase the supply of high-quality protein

- Drove rapid genetic improvement in both porcine and bovine species
- Continued our work to combat PRRSV in pigs, successfully delivering our first gene edited animals
- Introduced Sexcel in target markets such as India, increasing the probability of female offspring

- Continue driving porcine and bovine genetic improvement and rapidly disseminate the genetics
- Continue responsible development of PRRSV resistant pigs to improve animal well-being and sustainability, while engaging with industry stakeholders, regulators and consumers about the benefits of this technology
- Increase the availability of Sexcel in the market place

ANIMAL WELL-BEING

Continually improving animal welfare through proven science-based initiatives

- Introduced PIC Care, a new training programme to be undertaken annually by all PIC employees with routine animal contact
- Completed the second PIC Supply Chain survey and developed an action plan based on the findings
- Continued to invest in PIC and ABS animal housing facilities

- Continue investment in PIC and ABS animal housing facilities
- Continue aligning standard operating procedures across the PIC global Supply Chain
- Focus on reducing bovine birthing stress, to improve maternal health

ENVIRONMENT

Reducing the environmental impact of protein production

- Audited 83% of PIC-owned production sites
- Improved feed efficiency by 0.024kg of feed per kg of pork
- Evolved our range of proprietary beef genetics that improve feed efficiency

- Maintain scope and measures of PIC audits on owned production, including 80% of owned sites
- Improve feed efficiency by 0.02kg of feed per kg of pork per annum
- Explore opportunities for wider deployment of renewable energy solutions across sites
- Complete roll-out of eco-friendly porcine semen packaging solution in Mexico

OPERATE SAFELY

Ensuring a safe working environment for our colleagues

- Reduced vehicle-related incidents by 14%
- Increased 'near miss' reporting in key regions by 60%
- Reduced animal-related injuries by 1%, despite working with a larger number of animals during the year

- Reduce occupational road risk year-on-year
- Continue to reduce recordable incidents, specifically involving animals, and on customer premises

COMMUNITY

Being a responsible corporate citizen, within our communities

- Recruited 188 staff into our PIC and ABS production sites
- Supported internships and graduate recruitment programmes

- Continue to respond to local community crises, recruit into local farms and encourage support for charities close to the local businesses
- Enhance our range of placement and employment opportunities for students and apprentices

GREENHOUSE GAS ('GHG') REPORTING

Our GHG emissions are primarily methane produced by our animals and carbon dioxide from consuming fuel and other materials, and from transport. Our primary intensity ratio is based on animal weight, which is a key driver of our GHG emissions. Our secondary intensity ratio is based on turnover.

Animal weight reduced by 5%, mainly due to a lower number of animals in porcine, driven by the strategic production partnership entered into with Hermitage, exiting a farm in the Philippines and reductions in animal numbers in China and US due to disease outbreaks. This animal weight reduction is the primary driver in the reduction in our scope 1 and 2 emissions, resulting in our primary intensity ratio reducing 4%.

Our secondary intensity ratio has reduced by 10% due to the increase in turnover and decrease in our total emissions.

Our Reporting Approach

We use operational control as our reporting approach. We have determined and reported the emissions we are responsible for within this boundary and believe there are no material omissions. GHG data is therefore reported for assets, which are mainly rented or leased, that are otherwise not referred to elsewhere in the financial statements. We omitted JVs and some livestock held at third-parties, due to our limited authority to introduce and implement operating policies.

GHG EMISSIONS FOR 2018 (%)



- 46% Scope 1 Livestock
- 9% Scope 1 Fuel
- 13% Scope 1 Own Transport
- 9% Scope 2 Electricity and Heat
- 7% Scope 3 Distribution
- 11% Scope 3 Travel
- 5% Scope 3 Other

	2018	2017
Emissions from	Tonnes of CO ₂ e	Tonnes of CO ₂ e
Scope 1 – combustion of fuel, own transport and livestock emissions	67,650	74,339 ¹
Scope 2 – purchased electricity, steam, heat and cooling	8,398	9,710 ¹
Total Scope 1 and 2	76,048	84,049
Scope 3 – material usage and waste, third party distribution and business travel	23,016	24,055
Total emissions	99,064	108,104
Primary intensity measure – animal weight (tonne)	9,608	10,146
Secondary intensity measure – turnover (£m)	470.3	459.1
Primary intensity ratio – Scope 1 and 2 (tCO₂e/tonne animal weight)	7.9	8.3
Secondary intensity ratio – Scope 1, 2 and 3 (tCO₂e/£m turnover)	211	235

¹ 2017 scope 1 and 2 emissions have been restated due to corrections to data reported in China.

Annual emission figures have been calculated based on actual ten-month data for July to April extrapolated to full year.

CHAIRMAN'S LETTER

STRONG CORPORATE

GOVERNANCE

“
**THE BOARD
 CONTINUES
 TO PROVIDE
 HIGH-QUALITY
 LEADERSHIP
 TO THE GROUP**

BOB LAWSON
 CHAIR OF THE BOARD

”

Dear Shareholder

This was another busy and constructive year for the Board, as we continued to focus on providing the leadership and oversight the Group requires to successfully implement the strategy. We were pleased that this year's Board evaluation once again showed that the Board is functioning well.

Last year's evaluation identified strategic clarity, risk analysis, succession planning and shareholder communication as priorities for the Board this year. We made good progress in each of these areas, as this report explains. We were also delighted to further strengthen the Board, with the recruitment of Lesley Knox and Ian Charles as Non-Executive Directors. Their comprehensive induction programmes include meetings with senior management to discuss strategy, financial performance, operations, risks and opportunities; site visits and meetings with employees to provide insight into our bovine, porcine and R&D business units; and corporate governance seminars. This will give them a thorough grounding in Genus and help them to maximise their contribution to the Board.

Genus complied in full with the 2016 edition of the UK Corporate Governance Code, which was the applicable standard for this year. We continue to monitor changes to the governance environment, including the newly released 2018 edition of the Code, to ensure ongoing compliance.¹

Bob Lawson
 Chair of the Board
 5 September 2018

¹ A copy of the 2018 UK Corporate Governance Code is available from the Financial Reporting Council website.

OUR APPROACH TO REPORTING ON CORPORATE GOVERNANCE

We aim to provide genuine insight into the Board's activities and to clearly explain how our corporate governance framework functions. Set out below is an explanation of how we report on governance, aligned with the Code's five key principles.

Principle

Highlights

More Information

LEADERSHIP

Information on the composition of the Board and its Committees, the Directors' roles and responsibilities, and their key activities this year.

We further strengthened the Board by recruiting two Non-Executive Directors, adding different perspectives and experiences to the Board.

Board of Directors and Company Secretary (pages 44 to 45)
The Board's Year in Review (pages 48 to 51)
Leadership (pages 52 to 54)

EFFECTIVENESS

How we ensure the Board has the right mix of skills and experience, and the results of the annual Board evaluation.

The annual evaluation confirmed that the Board continues to work effectively and highlighted areas of focus for the coming year.

The Board's Year in Review (pages 48 to 51)
Nomination Committee Report (pages 59 to 61)

ACCOUNTABILITY

An explanation of our risk management and internal controls, and the Audit Committee's activities during the year.

The Audit Committee and Board continued their robust focus on risk management and control, including biosecurity.

Audit Committee Report (pages 62 to 64)
Internal Audit and Risk Management (pages 55 to 56)

RELATIONS WITH SHAREHOLDERS

Includes our investor relations calendar, data on the shareholders we met during the year, and the key themes discussed at investor meetings.

The Executive Directors met institutional investors owning almost 63.2% of our share capital, including 20 of our 25 largest shareholders, as well as many potential investors.

Relations with Shareholders and Other Stakeholders (pages 57 to 58)

REMUNERATION

Our approach to rewarding and incentivising the Directors and a report on their remuneration for the year.

The Remuneration Committee continued to focus on delivery of reward within the Policy agreed by shareholders, effective alignment of reward with business outcomes, and the structure of reward across the wider organisation.

Remuneration Report (pages 65 to 88)

BOARD OF DIRECTORS AND COMPANY SECRETARY



Bob Lawson^{1,2}
Non-Executive
Chairman/
Nomination
Committee Chair

Board Appointment
November 2010

Skills and Experience

- Significant experience of leading international businesses, including through operational and cultural changes
- Deep understanding of listed companies and corporate governance

Current Appointments
Non-Executive Chairman of Eurocell plc.

Past Appointments
Chief Executive of Electrocomponents plc, Managing Director of Vitec Group plc, Chairman of the Federation of Groundwork Trusts, Chairman of Hays plc, and Non-Executive Chairman of Barratt Developments plc.



Karim Bitar¹
Chief Executive

Board Appointment
September 2011

Skills and Experience

- Extensive experience of leading international, technology driven organisations
- Led the strategic review of Genus in 2012, resulting in a new vision, strategy, structure and core values
- BSc in Biochemistry from the University of Wisconsin and an MBA from the University of Michigan

Current Appointments
Non-Executive Director of Spectris plc and member of the University of Michigan Ross School of Business Advisory Board.

Past Appointments
President of Lilly Europe, Canada and Australia; McKinsey and Company consultant; and management roles at Johnson and Johnson, and the Dow Chemical Company.



Stephen Wilson
Group Finance Director

Board Appointment
January 2013

Skills and Experience

- International experience in France and the US
- Wide-ranging knowledge of mergers and acquisitions, financing, strategy and investor relations
- Fellow of the Chartered Institute of Management Accountants
- Degree in Mathematics from the University of Cambridge

Past Appointments
Executive Vice President and Chief Financial Officer of Misys plc; finance and business development roles at IBM; and Non-Executive Director and Audit Committee Chair of Xchanging plc.



Nigel Turner^{1,2,3}
Senior Independent
Non-Executive Director/
Remuneration
Committee Chair

Board Appointment
January 2008

Skills and Experience

- Substantial experience of international business and corporate finance

Past Appointments
Senior Independent Director of Croda International Plc, Chairman of Numis Securities Ltd; Deputy Chairman of Numis Corporation plc; Vice Chairman of ABN AMRO's Wholesale and Investment Bank; and Partner and member of the Supervisory Board at Lazard.



Lysanne Gray^{1,2,3}
Non-Executive Director/
Audit Committee Chair

Board Appointment
April 2016

Skills and Experience

- Significant experience of risk management, audit, business operations, acquisitions and disposals, and corporate governance, gained within the food sector
- Chartered accountant

Current Appointments
Financial Controller at Unilever plc and Unilever NV.

Past Appointments
Chief Auditor of Unilever; Chief Financial Officer of Unilever's global food service business; and a number of other senior operational and financial positions within Unilever.

Key to Committees

- 1 Member of the Nomination Committee.
- 2 Member of the Remuneration Committee.
- 3 Member of the Audit Committee.



Professor Duncan Maskell^{1,2,3}
Non-Executive Director

Board Appointment
April 2014

Skills and Experience

- Co-founder of several biotech companies
- Extensive experience of commercialising science and innovation
- Experienced scientific adviser to companies, using his broad perspective on life sciences

Current Appointments
Vice Chancellor of the University of Melbourne.

Past Appointments
Senior Pro-Vice Chancellor ('PVC') of the University of Cambridge, where he and the four other PVCs were responsible for the University's strategy and policy development.

Head of the School of the Biological Sciences at the University of Cambridge, leading research on infectious diseases of livestock and people.



Lykele van der Broek^{1,2,3}
Non-Executive Director

Board Appointment
July 2014

Skills and Experience

- Vast experience of growing companies and working in agricultural businesses throughout the world, including in emerging markets

Current Appointments
Chair of Eden Research plc.

Past Appointments
Member of the Board of Management of Bayer CropScience, a division of Bayer AG; senior international roles including the Head of Bayer CropScience's BioScience division; and President of the Bayer HealthCare Animal Health division.



Lesley Knox^{1,2,3}
Non-Executive Director

Board Appointment
June 2018

Skills and Experience

- Broad international, strategic and financial services experience, both through executive and non-executive roles
- Has advised numerous companies including manufacturers and distributors of food products, encompassing poultry and poultry breeding companies

Current Appointments
Chair of Grosvenor Group and member of the Remuneration committee; Non-Executive Director of Thomas Cook; and Non-Executive Director and Chair of the Remuneration Committee of Legal & General.

Past Appointments
Founder director of British Linen Advisors; Governor of British Linen Bank Group; and numerous non-executive roles, including Centrica, SAB Miller, Alliance Trust, Hays, Scottish Provident and Bank of Scotland.



Professor Ian Charles^{1,2,3}
Non-Executive Director

Board Appointment
July 2018

Skills and Experience

- Entrepreneurial scientist, with deep scientific expertise
- More than 30 years' experience in academic and commercial research institutions
- Current research focus is infectious diseases, the microbiome and its impact on health and well-being

Current Appointments
Co-founder and Board Director of Auspherix; Board Director of Longas Technologies Pty Limited; and Director of Quadram Institute Bioscience.

Past Appointments
Director of the three institute, University of Technology, Sydney; co-founder and Chief Scientific Officer of Arrow Therapeutics; founder member of The Wolfson Institute for BioMedical Research at University College London; and various roles at Glaxo Wellcome and Sheffield, Cambridge and Leicester Universities.



Dan Hartley
Group General Counsel and Company Secretary

Appointment
June 2014

Skills and Experience

- Significant experience in multi-jurisdictional patent litigation, mergers and acquisitions, patent licensing and managing product life cycles in complex areas
- Degrees in science and law

Past Appointments
Senior Vice President and International Counsel of Shire plc; and senior and global roles in Australia, the UK and the US.

GENUS EXECUTIVE LEADERSHIP TEAM ('GELT')



Karim Bitar
Chief Executive

Stephen Wilson
Group Finance Director

Dan Hartley
Group General Counsel and
Company Secretary

Angelle Rosata
Group HR Director

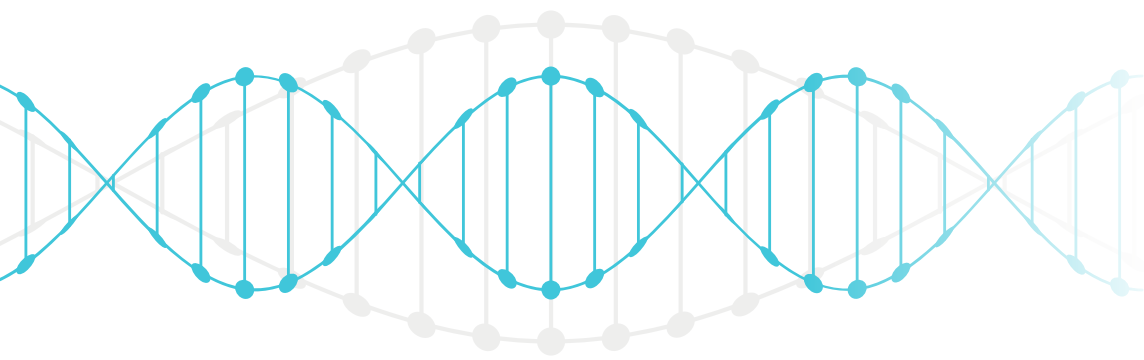
See pages 44 and 45 for Karim's, Stephen's and Dan's biographies.

Skills and Experience

- Deep and broad expertise spanning resourcing, talent management, succession planning, leadership development and health and safety
- Extensive HR strategic planning skills and commercial acumen
- Masters in Human Resource Development from Vanderbilt University

Career

- Joined Genus in September 2013, following more than 20 years in the healthcare sector
- Developed and delivered PIC's people strategy, before becoming HR Director for ABS and then Group HR Director on 1 July 2017





Dr Bill Christianson
Chief Operating Officer,
Genus PIC

Skills and Experience

- Deep understanding of agriculture and biotechnology, with broad industry knowledge and extensive commercial and global experience
- DVM and PhD in Veterinary Medicine from the University of Minnesota

Career

- Joined Genus in 1993 and subsequently worked in operational roles spanning Europe, South America and the US, before becoming General Manager of PIC North America in 2007
- Led the combined ABS and PIC business across the Americas from 2010, before becoming COO of Genus PIC in 2012



Jerry Thompson
Chief Operating Officer,
Genus ABS Beef

Skills and Experience

- A natural entrepreneur with deep industry knowledge, commercial skills and international experience
- Has helped Genus establish and grow businesses in countries as diverse as the UK, Russia, India and China
- Holds a degree in Agriculture from University of Plymouth and is a graduate of Harvard Business School's Advanced Management Program

Career

- Joined PIC in 1992, working initially in the UK and then Siberia and Romania, before leading PIC in Central and Eastern Europe and then Europe as a whole
- Led PIC and ABS in Russia and Asia Pacific, before becoming COO for Genus Asia in 2012 and then COO for Genus ABS Beef in July 2016



Dr Nate Zwald
Chief Operating Officer,
Genus ABS Dairy

Skills and Experience

- Deep expertise and experience of dairy genetics, strong commercial focus and passion for people development
- Board member of the Council on Dairy Cattle Breeding and Vice President of the National Association of Animal Breeders
- Degree in Dairy Science, MBA and PhD in Dairy Cattle Genetics from the University of Wisconsin

Career

- Joined Genus in January 2017 after 15 years at Alta Genetics, including 10 years as General Manager of its US business and more than two years as Global Marketing Director
- Remains involved in his family's commercial dairy operation, Bomaz farm in the US, which has produced high-ranking industry and ABS sires



Dr Jonathan Lightner
Chief R&D and
Scientific Officer

Skills and Experience

- Quantitative molecular geneticist, with expertise spanning molecular biology, analytical chemistry and biotechnologies
- Extensive regulatory and commercial experience
- BS in Biology, Masters in Systems Engineering from Iowa State, MBA from the University of Iowa and Doctorate in Plant Physiology from the Institute of Biological Chemistry at Washington State University

Career

- Over 25 years of industrial experience, applying biotechnology to creating solutions for farmers
- Ten years in variety of executive roles with Pioneer HI-Bred, including leading the global biotechnology team
- Joined Genus in 2013 as Chief Scientific Officer and global head of R&D
- Prior experience included three years with Exelixis, as Director of Biochemical Genomics






THE BOARD'S YEAR IN REVIEW







BOARD ACTIVITIES

The Board held eight meetings during the year. At each scheduled meeting, the Board receives updates on:

- business performance, business development and competitive landscape developments from the CEO;
- financial performance of the businesses and forecasts from the Group FD; and
- corporate governance and legal issues from the Group General Counsel and Company Secretary, and external advisers.

The table below provides more detail of the Board's discussions and activities, and the outcomes from them:

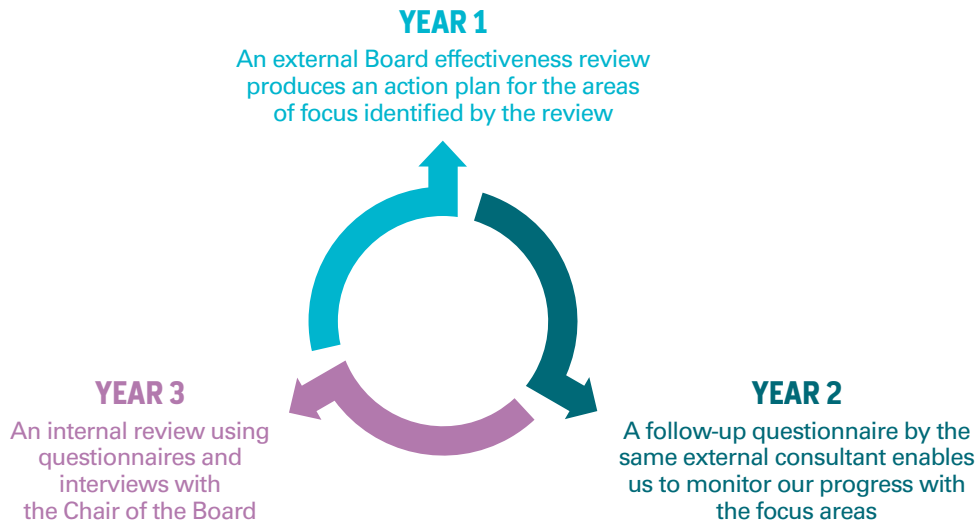
Topic and link to our strategy	Activity	Actions arising	Progress
Leadership and Effectiveness  	Monitor Board effectiveness	Carried out Board effectiveness review Received updates on changes in Corporate Governance from external advisors and Group General Counsel	Areas of strengths and focus were identified (see page 50)
	Monitor pipeline of senior talent	Updated on the employee survey outcomes and talent management	Oversight of implementation of actions from the employee survey and ongoing updates on key talent/talent management
Business Development & Strategy  	Monitor progress against our strategic objectives	Held strategic meeting with GELT	See page 51
	Review and approve business activities	Approved: <ul style="list-style-type: none"> • the launch of Sexcel • strategic relationship with Møllevang • IntelliGen Third Party Agreements 	See pages 20 and 21 See pages 22 and 23 See pages 18 and 19
	Monitor strategic developments	Received updates on: <ul style="list-style-type: none"> • Sexcel sales and progress • Hermitage acquisition • ongoing IVB integration • IntelliGen technology development and US litigation (see note 7) • business development opportunities, including summaries of due diligence reviews • competitor activities 	See pages 26 and 27
Research & Development 	Monitor R&D progress	Received updates: <ul style="list-style-type: none"> • on R&D investment • on IntelliGen technology production in the US and India • on R&D pipeline developments, new initiatives and potential collaborations • on the progress of the PRRSv development programme, including the first batches of founder gene edited pigs born from the result of the RenOVAtе joint venture • on the progress of bovine product developments, including the progress of the De Novo joint venture • from Directors attending the R&D Portfolio Management Team 	See pages 30 and 31

Topic and link to our strategy	Activity	Actions arising	Progress
Employees 	Review recruitment pipeline Update on employee feedback	Received updates on key vacancies and hires, in particular in relation to the scale up of the IntelliGen manufacturing team Met key talent and business leads on Board site visits Carried out Your Voice survey	See page 37 for more information 82% of global staff completed
Shareholders 	Monitor investor attitudes towards Genus	Updated on meetings with shareholders, potential investors and analysts Received regular briefings from Executive teams Held a Capital Markets Day	See page 57 for more information
Company Performance and Finance 	Monitor performance against plan Review past and projected financial performance Monitor key financial issues Monitor performance against plan	Received updates on: <ul style="list-style-type: none"> the operational performance of the business market conditions for each division Monitored the Group's performance against its goals Approved the annual and interim results and dividends Approved the 2019 budget Received tax and treasury updates Received pension updates Monitored Group's performance against its goals	See pages 32 to 35
Executive/GELT Updates 	Monitor business unit performance and plans	Received monthly financial and operational performance updates Received regular presentations from each business unit	
Health & Safety 	Ensure strong culture of health and safety	Reviewed 2018 targets for H&S and reviewed progress throughout the year Received monthly and quarterly updates from Head of H&S, including progress against the H&S KPIs	See pages 36 to 41
Risk Management 	Monitor risk management and control	Monitored the Group's risk register Updated on whistleblowing hotline reports and investigations Audit Committee and Board updated on the ongoing efforts to strengthen measures and improve biosecurity and supply chain resilience	See pages 12 and 13

THE BOARD'S YEAR IN REVIEW

ASSESSING THE BOARD'S EFFECTIVENESS

To ensure the Board provides effective leadership to the Group, we have a three-year evaluation cycle, using a mixture of internal and external evaluations.



This was the third year of the three-year cycle. The questionnaires circulated to the Board focused on the following:

- role of the Board;
- role of the Non-Executive Directors;
- role of the Executive Directors;
- Board meeting process;
- Board's monitoring of the Company's performance;
- Board's leadership and culture;
- Board's corporate governance; and
- additional comments on strengths, risks, priorities, effectiveness, and strategy

The Chairman then conducted individual interviews with each Board member. These enabled him to discuss questionnaire replies in confidence and open up further discussion of the points raised.

A report of the findings was then circulated to the Board, followed by a Board session to discuss the strengths and areas of focus identified by the review, and to agree actions.

The Evaluation's Conclusions

The review showed that the Board had the following key strengths:

- an open, challenging and supportive culture;
- complementary experience, style and team culture that encourages constructive debate;
- a high level of understanding, intelligence, skills and integrity; and
- a genuine interest in the business and its success.

Board Focus Areas FY19

The evaluation identified the following priorities for the Board in FY19:

- reviewing the sequence and timing of Board succession;
- ensuring appropriate induction of new Directors;
- obtaining greater insight into local and regional operating environments, markets and customer demands; and
- obtaining greater insight into competitors' performance, strategies and weaknesses.

Information about our progress with our FY18 areas of focus, which arose from the 2017 effectiveness review, can be found in the case studies on pages 20 to 25.

OVERSEEING OUR STRATEGY AND PERFORMANCE



ASSESSING OUR STRATEGIC PROGRESS

LYKELE VAN DER BROEK
NON-EXECUTIVE DIRECTOR

One of the Board's priorities for this year was to maintain its focus on strategic clarity, in a changing competitive landscape. A key part of this is the annual strategy review, which the Board holds each January. Members of GELT and their direct reports update the Board on their business unit or function, allowing the Directors to assess how well we are implementing the strategy and ensure it remains the right one for the Group.

As Lykele van der Broek explained: "The annual strategy review is critical. It helps us to stay informed about the competitive landscape, the challenges and opportunities the strategy is addressing and the Group's planned performance over the next five years. In turn, this knowledge enables us to effectively review, challenge and approve each business unit's strategy and monitor their progress against it. This process is equally important for senior leaders in that team. They benefit from outlining the strategic direction and allowing the Board, with its broad experience, to challenge and constructively debate their plans, helping them to fine tune their strategies."



EFFECTIVELY MANAGING RISK

LYSANNE GRAY
NON-EXECUTIVE DIRECTOR

Ensuring the Group effectively identifies, manages and mitigates risk is one of the Board's primary responsibilities, which it carries out with the support of the Audit Committee. This year, the Board also had an objective to continue to analyse risk, to better understand the risks we face, our controls and our risk appetite.

"Risk management has again been a key focus for the Audit Committee," said Lysanne Gray, the Committee Chair. "We reviewed the Group-wide risk management process and discussed the risks identified and the mitigation plans with the Chief Executive and Group Finance Director. There were also a number of risks that we considered important enough to raise to the full Board. These included IntelliGen gene editing technology, biosecurity and our supply chain, the project to implement a new enterprise-wide business system, cyber security and health and safety. This ensured that all the Directors received detailed input from management, were able to discuss the risks and mitigations and could satisfy themselves that the risks were being effectively managed."



PLANNING SUCCESSION

NIGEL TURNER
SENIOR INDEPENDENT
NON-EXECUTIVE DIRECTOR

Ensuring we have succession plans in place for the Directors and other senior executives is one of the Nomination Committee's primary responsibilities and a focus area for the Board as a whole this year.

"We established a formal succession planning process two years ago and this continues to prove effective," said Nigel Turner, Senior Independent Non-Executive Director. "Mapping the Board's skills and experience has enabled us to identify any gaps we need to address and the capabilities we would need to replace, should any of the Directors decide to step down. This work was important in considering and in recruiting two Non-Executive Directors this year. Lesley Knox brings exceptional experience of major company boards and an understanding of the City, while Ian Charles is the ideal candidate to take on Duncan Maskell's role as advisor to the R&D Portfolio Management Team. We will continue to update our plans to ensure successful succession in the future."



COMMUNICATING WITH SHAREHOLDERS

BOB LAWSON
CHAIRMAN

The Board puts a high priority on ensuring we keep shareholders informed about our strategy and progress. Focusing on structured shareholder communication was therefore one of the Board's objectives in 2018.

"The Capital Markets Day on 20 June was a key part of our communication with institutional investors and analysts this year," said Bob Lawson. "Investors were able to see our performance against strategy and learn more about our plans from six of our most senior executives. These events give investors much greater insight to Genus than we can provide in our day-to-day investor communications. They also help to showcase to investors the strength in depth of our executive team, while also helping our executives gain first-hand knowledge of investors' interests and concerns."

CORPORATE GOVERNANCE STATEMENT

LEADERSHIP

The Board's Role

The Board is responsible for ensuring our long-term success. It approves our strategy and corporate goals and monitors our performance against them; determines that we have the necessary resources, systems and controls to achieve our objectives; and sets the culture and standards of behaviour we want to see throughout Genus.

The Board is also responsible for other critical decisions. These include approving the corporate budget; ensuring we have the right funding; approving material contracts, acquisitions and investments; and reporting to shareholders.

The Board's Composition

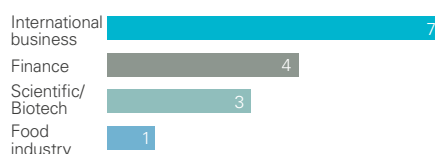
We have further strengthened the Board with the appointment of two additional independent Non-Executive Directors ('NEDs'), Lesley Knox (joined 1 June 2018) and Professor Ian Charles (joined 1 July 2018). At the date of this report, the Board therefore comprised seven independent NEDs, including the Chairman, and two Executive Directors – the Chief Executive and the Group Finance Director. This gives us a majority of independent Directors on the Board. Professor Duncan Maskell will retire at the Annual General Meeting ('AGM') on 15 November 2018, reducing the number of independent NEDs by one.

The two charts below show the length of time our NEDs have served on the Board and the number of Board members with experience of particular relevance to Genus.

NON-EXECUTIVE TENURE ON THE BOARD



A BROAD BASE OF RELEVANT EXPERIENCE



The Board comprises both well-established and newer NEDs, as we have broadened the Board's skills and experience through Non-Executive appointments over recent years.

Board Roles and Responsibilities

To ensure we have clear responsibilities at the top of the Company, the Board has set out well-defined roles for the Chairman and Chief Executive. These, along with the responsibilities of our other Directors, are summarised in the table below.

Title	Individual	Responsibilities
Chairman	Bob Lawson	Bob's primary responsibility is to lead the Board and ensure it operates effectively. He achieves this in part through promoting an open culture, which allows people to challenge the status quo, and holding meetings with the NEDs without the Executives present. Bob is also responsible for the Board's communications with shareholders.
Chief Executive	Karim Bitar	Karim is responsible for devising and implementing our strategy and for managing our day-to-day operations. He is accountable to the Board for the Group's development, in line with its strategy, taking into account the risks, objectives and policies set out by the Board and its Committees.
Group Finance Director	Stephen Wilson	Stephen is responsible for helping the Chief Executive to devise and implement the strategy, and for managing the Group's financial and operational performance.
Senior Independent NED	Nigel Turner	Nigel provides a sounding board for the Chair and is an alternative line of communication between the Chair and other Directors. He leads meetings of the NEDs, without the Chair present, to appraise the Chair's performance, and consults with shareholders in the absence of the Chair and Chief Executive.
NEDs	Lysanne Gray Duncan Maskell Lykele van der Broek Lesley Knox Ian Charles	The NEDs constructively challenge, oversee and help to progress the execution of our strategy, the management of the Group and the management of our governance structures, within the risk and control framework set by the Board.

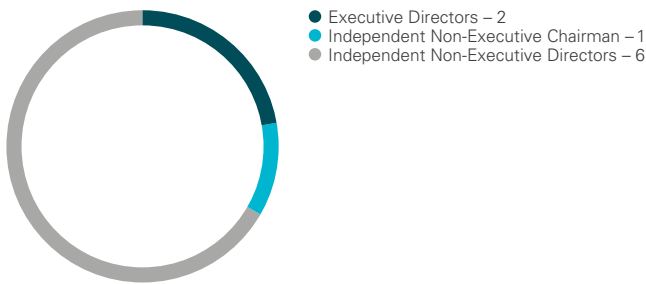
As a result, the Board has an appropriate blend of different areas of expertise, long-standing knowledge of the Group and its markets, and fresher perspectives. This helps to ensure the Board provides even-handed oversight, works in a constructive and focused manner and has the capabilities to manage the challenges of a complex and evolving global business environment. When recruiting NEDs, we consider diversity in its broadest sense while ensuring the Board has the skills it needs. More information about our approach can be found in the Nomination Committee report on pages 59 to 61.

Almost all of our Directors have held leadership positions in international companies, with several having run businesses overseas. Several of our Directors, including the Chair of the Audit Committee, have significant financial experience, while others have strong backgrounds in scientific research or in leading science-based businesses.

The Board believes that all of the NEDs are independent in character and judgement, and that there are no relationships or circumstances that are likely to affect (or could appear to affect) their judgement. Following the performance evaluation described on page 50, the Board also confirms that all the Directors continue to be effective and to demonstrate commitment to their roles.

As required by the Code, all the Directors will offer themselves for election at the next AGM. Details can be found in the Notice of AGM at the end of this report. If re-elected to the Board at the AGM, Nigel Turner will reach the 11th anniversary of his original appointment as a NED in January 2019. Following an internal review, the Board is satisfied that Nigel remains independent and that he has no connection with the Group's operational activities.

AN INDEPENDENT BOARD

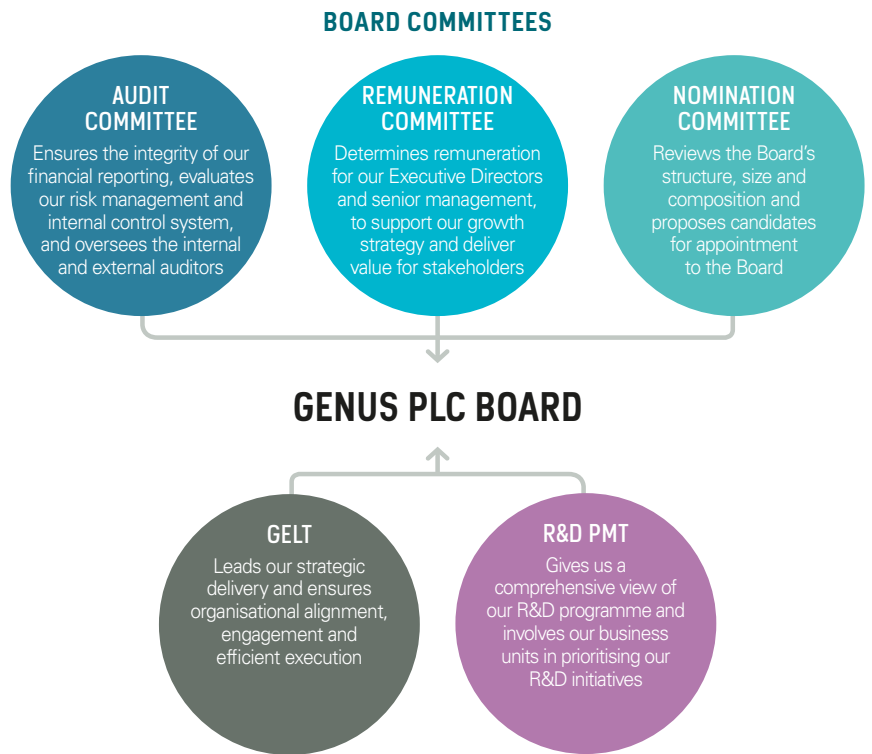


Board and Committee Structure

The diagram below shows the Board and the Committees that report to it.

Executive Committees

Information about the GELT and the R&D PMT can be found on pages 46 to 47 and page 51 respectively.



Board Committees

The table below shows Board Committee membership:

Director	Committee		
	Audit	Nomination	Remuneration
Bob Lawson	–	C	M
Karim Bitar	–	M	–
Nigel Turner	M	M	C
Lysanne Gray	C	M	M
Duncan Maskell	M	M	M
Lykele van der Broek	M	M	M
Lesley Knox	M	M	M
Ian Charles	M	M	M

M = Committee member C = Committee Chair

OTHER TEAMS REPORTING TO THE BOARD

The Committee Chairs oversee and lead the Committees' activities, within their terms of reference, and are responsible for their effective operation. More information about the roles and work of the Board Committees can be found in their statements on pages 59 to 88, and in their terms of reference on our website at www.genusplc.com.

CORPORATE GOVERNANCE STATEMENT

LEADERSHIP

Attendance at Board and Committee Meetings

The table below shows how many Board and Committee meetings each Director attended during the year.

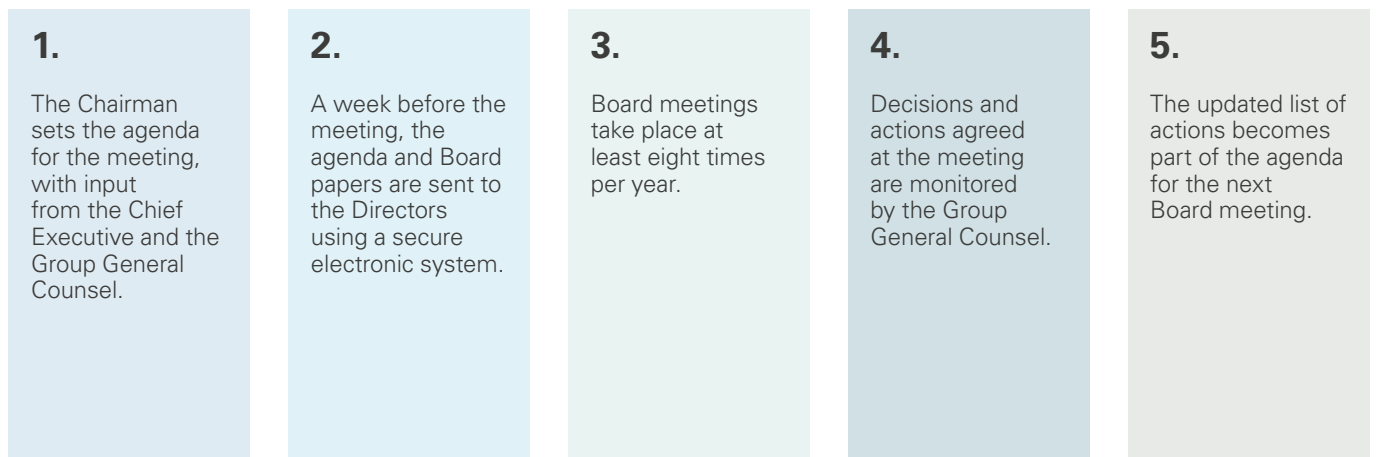
Director	Board	Nomination	Audit	Remuneration
Non-Executive Chair of the Board				
Bob Lawson	8	3	5 ¹	5
Executive Directors				
Karim Bitar	8	3	5 ¹	5 ¹
Stephen Wilson	8	3 ¹	5 ¹	5 ¹
Non-Executive Directors				
Nigel Turner	7	2	5	5
Lysanne Gray	8	3	5	5
Duncan Maskell	8	3	5	5
Lykele van der Broek	8	3	5	5
Lesley Knox (appointed 1 June 2018)	1	–	–	–

Notes: Maximum number of Board and Committee meetings a Director could have attended: Board 8, Nomination 3, Audit 5 and Remuneration 5. Ian Charles joined the Board after the year end and is therefore not included in the table above.

¹ Attendance by invitation.

Information Flow to the Board

The diagram below sets out our process for providing information to the Directors, ahead of the scheduled Board meetings. This ensures our Directors are well-informed and can contribute effectively to Board discussions.



ACCOUNTABILITY

Risk Management

The Board is responsible for our risk management system, which is designed to identify, evaluate and prioritise the risks and uncertainties we face. The Board sets our risk appetite, monitors the Group's risk exposure for our principal risks and ensures appropriate executive ownership for all risks. This ongoing risk management process for the Group's significant risks has been in place for the year under review and up to the date of approval of the Annual Report and Accounts. Our principal risks and how we mitigate them are summarised on pages 12 and 13.

To further assist its understanding of risk, the Board continued its programme of visits to our local operations and received regular political, economic and industry risk updates from the relevant business groups.

The Board performed its annual risk review in May 2018. This involved a fresh review of the types and levels of risk facing Genus, as it executes its strategy, and was designed to identify and evaluate any new or emerging risks and ascertain whether the risk register covered all relevant risks.

Internal Control

The key elements of our internal control system are set out below. An internal control system cannot completely eliminate the risks we face or ensure we do not have a material misstatement or loss.

Management Structure

The Board sets formal authorisation levels and other controls that allow it to delegate authority to run our businesses to the Chief Executive, GELT and their management teams. Our management supplements these controls by setting the operating standards that each subsidiary needs for its business and location.

GELT regularly reviews our performance against strategy, budget and a defined set of operational key performance indicators. The Chief Executive, Group Finance Director, Group General Counsel and Company Secretary, and the Group Financial Controller also hold monthly reviews with each business unit.

Quality and Integrity of Our People

We strive to operate with high integrity in everything we do. Our control environment depends on high-quality people who maintain our ethical standards. We ensure our people's ability and integrity through our recruitment standards, training and consistent performance management. The Board is informed of appointments to our most senior management positions.

Information and Financial Reporting Systems

We create detailed operational budgets for the year ahead, along with five-year strategic plans, which the Board reviews and approves. We then monitor our performance throughout the year, so we can address any issues. The information we consider includes our monthly financial results, key performance indicators and variances, updated full-year forecasts and key business risks.

The main internal control and risk management processes relating to our preparation of consolidated accounts are our Group-wide accounting policies and procedures, segregation of duties, system access controls, a robust consolidation and reporting system, various levels of management review and centrally defined process control points and reconciliation processes.

Investment Appraisal

We control our capital expenditure through our budget process and by having clear authorisation levels, above which our businesses must submit detailed written proposals to the Board for approval.

We carry out due diligence for business acquisitions and material licences, and conduct post-completion reviews of major projects, to ensure we identify areas for improvement and correct any areas of underperformance or overspend.

CORPORATE GOVERNANCE STATEMENT

ACCOUNTABILITY

Independent Audit

Our internal audit activities are provided by in-house and external resources, under the leadership of our Head of Risk Management and Internal Audit. During the year, Internal Audit completed a risk-based audit programme agreed by the Audit Committee. The Audit Committee reviews the results of these audits and the subsequent actions we take, which we also communicate to the external auditor.

All business units complete risk and control self-assessments twice a year. Internal Audit, as part of its work programme, performs independent reviews of these assessments to identify any deficiencies in our controls and how we should address them. The external auditor also provides observations on the control environment as part of its audit work. The results are communicated to senior management and the Audit Committee.

Review of the Effectiveness of Internal Controls

The Board, with the help of the Audit Committee, reviewed the effectiveness of our internal control system, as well as our financial, operational and compliance controls and our risk management. The review considered our internal control self-assessment process, which is designed to assess compliance with our minimum control standards, the independent internal audit programme, and the reports management prepared when the Board approved the interim and final results and financial statements.

It also assessed:

- whether we had identified, evaluated, managed and controlled significant risks; and
- whether any significant weaknesses had arisen, and if so, whether we had addressed them.

The assessment also took into account any risk or control issues we identified through our divisional business reviews, Board and GELT meetings, and insurers' reviews.

We have an internal control continuous improvement work programme and routinely identify opportunities to strengthen our control environment and improve our risk management capabilities. However, the Board has not identified or been told of any material weaknesses in our internal controls.

RELATIONS WITH SHAREHOLDERS AND OTHER STAKEHOLDERS

The Group has a wide range of stakeholders and looks to actively engage with them, to keep them updated about our business and our progress and to ensure we understand their priorities. Some of this engagement is carried out directly at Board level, while other engagement occurs during the course of running the business, which the Board keeps informed about through reports from management.

Shareholders

All Investors

- AGM – all resolutions passed with votes in favour ranging from 88.21% to 99.99%
- Annual report
- Website
 - live webcasts – preliminary and interim results
 - ongoing updates to CSR, with updated case studies

Institutional Investors

- See shareholder engagement (below)

Employees

- Your Voice survey – response rate increased to 82%. Further information on the results of the Your Voice survey are on page 37
- CEO video update, manager-led updates and updates via intranet following results announcements
- Leadership calls and quarterly manager briefings
- Intranet – regular updates on business developments and results
- Board annual site visits, meeting with the local teams
- Chairman's Award – opportunity for teams to present projects that meet Genus's values

Customers

- Board annual customer site visits – this year the Chairman and the CEO visited Russia in May, meeting with a number of customers and potential customers in Moscow, and customers and employees in Belgorod

Community

As a Group we aim to act responsibly at all times. We have developed plans to engage with our communities in an appropriate fashion, which have included: supporting "Women in Dairy"; the initiation of university internships; and graduate programmes. We have also:

- supported charities close to local businesses; and
- opened a gallery for our Ruthin stud to school groups and members of the public, to encourage a greater understanding of agricultural processes

Further information on the initiatives can be seen at www.genusplc.com/responsibility/case-studies/

Shareholder Engagement Investor Relations Calendar

Date	Type of communication	Location
September 2017	Preliminary results announcement and presentation	London
September 2017	Preliminary results investor roadshow	London, Basingstoke, Edinburgh
November 2017	AGM and trading update	London
February 2018	Interim results announcement and presentation	London
February and March 2018	Interim results investor roadshow	London, Edinburgh
June 2018	Capital Markets Day	London
Various through year	Investor calls and meetings	London, Basingstoke, New York

We have a programme of announcements, presentations, meetings and other events for institutional shareholders, as shown in the table above.

Our Chief Executive and Group Finance Director regularly meet institutional investors, to discuss our strategy and progress, and to understand how investors view our business. The Chairman also attends certain meetings. These meetings usually take place after we release our interim and preliminary results.

During the year, our investor relations programme included meetings in the locations set out in our investor relations calendar. The Board sets time aside during its meetings to discuss feedback from shareholder meetings, including feedback obtained by independent brokers and our advisers. This allows all Directors to understand major shareholders' views.

CORPORATE GOVERNANCE STATEMENT

RELATIONS WITH SHAREHOLDERS AND OTHER STAKEHOLDERS

In June 2018, we held a Capital Markets Day. This was introduced by the Chair of the Board and included presentations from the Chief Executive, Group Finance Director, the three Chief Operating Officers and the Chief Scientific Officer. These presentations covered:

- the long-term drivers of our business and the competitive landscape;
- the strategies of the porcine, dairy and beef business units;
- our financial performance and our investment in R&D, intellectual property, people and technology transformation;
- our pioneering R&D programmes, including:
 - De Novo Genetics, our world-leading Holstein breeding programme;
 - the successful launch of Sexcel and IntelliGen; and
 - our progress with the gene editing and PRRSv programmes;
- how we are driving genetic improvement for large integrated pork producers and progressive dairy farmers globally, and across the beef value chain; and
- our approach to delivering sustainable profit growth and investing to strengthen our position.

The presentations are available on the Investor section of our website, www.genusplc.com.

Key Themes Discussed in Shareholder Meetings

Our meetings with shareholders during the year covered a wide range of topics. The common themes included:

- Genus's operational and financial performance;
- market conditions and our initiatives to address them;
- strategic progress across the Group;
- R&D progress and our increased spending to accelerate the programme;
- capturing a share of the value we deliver to customers;
- the integration of the Hermitage merger;
- the progress of the PRRSv development and regulatory programme and the opportunity for PRRSv resistant pigs; and
- updates on the GSS litigation.

29

Non-holding institutions and potential investors met

63.2%

Proportion of shares held by institutions met during year

20

Number of top 25 shareholders met (8 of top 10)

NOMINATION COMMITTEE REPORT

EFFECTIVENESS

Introduction

The Nomination Committee has a critical role in ensuring the Company has an effective and well-balanced Board. It reviews the Board's structure, size and composition and manages appointments to the Board. This year, the Committee continued to focus on succession planning for the Board, by reviewing the Directors' skills and experience and identifying areas to consider for future appointments.

Bob Lawson

Chair of the Nomination Committee
5 September 2018

Committee Composition and Governance

Chair	Members
Bob Lawson	Nigel Turner
	Duncan Maskell
	Lykele van der Broek
	Lysanne Gray
	Karim Bitar
	Lesley Knox ¹
	Ian Charles ¹

¹ Lesley Knox and Ian Charles were appointed on 1 June and 1 July 2018 respectively.

The Committee's biographies, along with information on Genus's other Board members, can be found on pages 44 to 45.

Committee Roles and Responsibilities

The Committee is responsible for:

- making recommendations to the Board on the structure, size and composition of the Board and its Committees;
- evaluating the balance of skills, experience, independence, knowledge and diversity on the Board;
- succession planning for the Non-Executive and Executive Directors and other senior executives; and
- identifying and recommending suitable candidates to become Directors, based on merit.

The Committee has written terms of reference, which set out the authority delegated to it by the Board. These are available from our website: www.genusplc.com.

Focus Areas for 2018 and 2019

During the year, the Committee continued to focus on the following priorities:

- succession planning for the Directors and in particular Duncan Maskell, the Chairman, the Senior Independent Director, Chief Executive and Group Finance Director;
- the ongoing review of the Board's diversity; and
- the ongoing review of the Board's mix of skills, to identify any gaps that need to be filled.

Given their importance, these will remain the Committee's focus areas for 2019.

The Committee's Main Activities During the Year

The Committee met three times in the year, primarily to discuss the Board's current skills and experience and succession planning.

NOMINATION COMMITTEE REPORT

EFFECTIVENESS

Succession Planning Process

The Committee has a formal three-phase succession planning process:

Assessment	Approach	Execution
<ul style="list-style-type: none"> The Committee reviews the Board's current skills and experiences across a range of relevant areas This results in a skills matrix (see below), which identifies the skills coverage across all Board members. Potential skills gaps are identified, so they can be incorporated into future succession planning at Board and Executive level. Areas for ongoing Board upskilling are identified and discussed. 	<ul style="list-style-type: none"> The Committee applies engagement rules for succession planning, including: <ul style="list-style-type: none"> ensuring succession planning is in line with the Committee's terms of reference; considering the need to replace the skills of any departing Non-Executive Director; and filling any missing skills required for the Company's strategic direction. Job specifications for the Non-Executives and Executives are kept up to date. 	<ul style="list-style-type: none"> The Committee identifies the desired skills for any new Non-Executive Director, for use in filling any future vacancies on the Board. Potential internal candidates for promotion to Executive Director are identified.

The Committee continued to apply this process during the year. This work underpinned the recruitment of two Non-Executive Directors, as described under Appointments below.

Board Skills Matrix

The table below shows the key experience and skills the Committee has identified as desirable and indicates their depth on the Genus Board.

	Majority of Directors with Medium to High Experience
General Experience and Skills	
Board and corporate governance	✓
Strategy	✓
Finance, banking and capital markets	✓
Risk, culture change and change management	✓
Politics, public affairs, regulation and communications	✓
Human resources	✓
Specific Experience and Skills	
Science and biotechnology	✓
Food sector	✓
International business	✓
US market	✓
EMEA market	✓
Asian market	✓
Latin American market	✓

Lesley Knox and Ian Charles joined the Board on 1 June and 1 July 2018 respectively. They both joined after the skills analysis was completed and therefore their experience is not included in the above table.

Appointments

The Chair leads the process for making appointments to the Board. During the year, we identified the need to appoint an additional Non-Executive Director, to add further depth to the Board's skills and experience, and a Non-Executive Director with scientific experience following Duncan Maskell's decision to retire after the next AGM.

For the first of these roles, we sought a candidate with:

- experience in investment banking, preferably including mergers and acquisitions or corporate finance;
- strong connections in the City;
- Board experience, as either an Executive or Non-Executive; and
- experience as a Remuneration Committee member or chair.

For the second role, our primary requirement was strong scientific experience in the sector or a related sector. We also favoured candidates with:

- commercial experience, outside scientific academia; and
- international experience or experience of living or working in more than one country.

To reach the widest possible candidate pool, we engaged Egon Zender, an executive search firm, which has also provided the business with occasional executive coaching services, and provided a clear recruitment brief, as well as seeking referrals from the Board. The Chairman identified candidates for interview, who were presented to the Committee and Executive Directors. Following a one-to-one interview process, the Committee received feedback on each candidate. Candidates were assessed consistently throughout the process, against the role specification.

Lesley Knox and Ian Charles were the outstanding candidates for these roles and the Committee was pleased to recommend their appointment to the Board.

Diversity Policy

Genus will continue to make all Board appointments based on individual merit, while recognising and embracing the benefits of Board diversity. A diverse Board has members with different skills, backgrounds, regional and industry experiences, races, genders and other qualities. By bringing these differences to bear in its discussions and decision-making, a diverse Board can help Genus to maintain its competitive advantage. Diversity also links directly to our values, not only by being people-focused and responsible, but by encouraging new ideas which deliver for our customers and ultimately drive our results. Our Board diversity policy therefore aims to ensure that we consider diversity in its broadest sense.

The Board, with the support of the Nomination Committee, will:

- consider all aspects of diversity when reviewing the Board's composition and when conducting the annual Board effectiveness evaluation;
- encourage development of internal high-calibre people to help develop a pipeline of potential Executive Directors;
- consider a wide pool of candidates for appointment as Non-Executive Directors, including those with little company board experience;
- ensure a significant portion of the long list for Non-Executive Director positions are women;
- consider candidates against objective criteria and with regard to the benefits of Board diversity; and
- only engage executive search firms who have signed up to the voluntary Code of Conduct on gender diversity and best practice.

The Board complied with the policy throughout the period, including during the recruitment process for the two new Non-Executive Directors. The Committee reviewed the policy during the year and concluded that it remained appropriate.

More information about diversity across Genus can be found in the Strategic Report on pages 37 to 38.

Board Induction and Training

A good induction is a key part of ensuring new Board members can fully contribute, so we get the most benefit from their experience.

Our induction programme has three main elements:

- helping our Board members to conduct themselves effectively, through a course run by Spencer Stuart, one of the world's leading global executive search and leadership consulting firms;
- ensuring our Directors understand the legal and regulatory aspects of being a Board member; and
- an introduction to our business, through site visits and meetings with our management teams.

Committee Effectiveness

Alongside the Board evaluation process described on page 50, we reviewed the performance of the Nomination Committee. This identified a number of important strengths, including the Committee using its time effectively and having an appropriate range of skills and experience. Areas of focus for the coming year are to continue the Committee's ongoing review of succession planning, ensuring that it is aligned with the Board's strategy and any skills gaps.

Service Contracts and Letters of Appointment

Copies of service contracts and letters of appointment between the Directors and the Company will be available for inspection at the Company's registered office during normal business hours until the conclusion of the AGM on 15 November 2018, and at the AGM from at least 15 minutes prior to the meeting until its conclusion.

AUDIT COMMITTEE REPORT

ACCOUNTABILITY – ENSURING THE GROUP'S FINANCIAL REPORTING INTEGRITY

Dear Shareholder

The Audit Committee acts on behalf of the Board and shareholders, to ensure the integrity of the Group's financial reporting, evaluate its system of risk management and internal control, and oversee the performance of the internal and external auditors. We have an annual work programme that is designed to deliver these commitments, which was followed during the year.

I am happy to report that the Committee's membership continues to comply with the UK Corporate Governance Code and related guidance, with all members being Non-Executive Directors who bring a sound range of financial, commercial and scientific expertise to the Committee. In addition, all members received regular updates from the external auditor, to ensure that they continue to have current knowledge of the accounting and financial reporting standards relevant to the Group's operations.

We have carefully considered the critical accounting policies and judgements, the quality of disclosures and compliance with financial reporting standards, and reviewed the half-year and Annual Report, together with the related external audit reports. We also supported the Board in reviewing the going concern and viability statements and supporting analysis.

Risk management requires continuous focus and during the year we discussed existing and emerging risks. We ensured that the Committee and the Board received and discussed detailed input from management on key risks and mitigation action plans as appropriate. We also discussed the Group's continuing programme to monitor and improve internal controls and received updates on the development of a group-wide enterprise system, which will further strengthen the control environment and support control standardisation across the group.

Based on assessments of the effectiveness of internal and external audit, the Committee was satisfied with the performance of both internal and external auditors, while taking opportunities to further enhance the audit services provided during the year.

Lysanne Gray

Chair of the Audit Committee
5 September 2018

Committee Composition and Governance

Chair	Members
Lysanne Gray	Nigel Turner
	Duncan Maskell
	Lykele van der Broek
	Lesley Knox ¹
	Ian Charles ¹

¹ Lesley Knox and Ian Charles were appointed on 1 June and 1 July 2018 respectively.

In addition to all of the Committee members being Non-Executive Directors, the Committee met the UK Corporate Governance Code's requirement that at least one Committee member should have recent and relevant financial experience, with Lysanne Gray having this experience.

The Committee has formal terms of reference, approved by the Board, that comply with the UK Corporate Governance Code. These are available from our website: www.genusplc.com. The Committee's annual review of these terms took place during the year.

Committee Role and Responsibilities

The Committee's role and responsibilities include reviewing and monitoring:

- the financial reporting process and any significant financial reporting judgements;
- the integrity of the Group's financial statements and any formal announcements relating to financial performance;
- the Annual Report, to ensure it is fair, balanced and understandable;
- the Company's reporting to shareholders;
- the effectiveness of the Group's accounting systems and control environment, including risk management and the internal audit function; and
- the effectiveness, independence and objectivity of the Group's external auditor, including any non-audit services it provides to the Group.

The Committee also:

- ensures that the Group maintains suitable confidential arrangements for employees to raise concerns; and
- reviews the Group's systems and controls for preventing bribery.

The Committee reports its findings to the Board, identifying any matters that require action or improvement, and making recommendations about the steps to be taken.

Committee Effectiveness

The Committee assessed its own effectiveness, through a structured questionnaire, and concluded that it was effective. The Committee agreed to enhance its effectiveness by further broadening its members' knowledge of relevant financial reporting standards.

The Committee's Main Activities During the Year

During the year, the Committee held five meetings and invited the Company's Chairman, Chief Executive, the Group Finance Director, the Group Financial Controller, the Head of Risk Management and Internal Audit, and senior representatives of the external auditor to attend these meetings. The Committee also held separate private sessions during the year with the Head of Risk Management and Internal Audit and the external audit partner. At its meetings, the Committee focused on:

Financial Reporting

The main areas of focus and matters where the Committee specifically considered management's judgements are set out below:

Financial reporting area	Judgement and assumptions considered
Biological assets valuation	In compliance with IAS 41, Genus records its biological assets at fair value in the Group balance sheet (£363.0m), with the net valuation movement excluding foreign exchange translation shown in the income statement. At each reporting period, the Committee was updated on the methodology and outcomes of the biological assets valuation. The methodology remained unchanged during the year and the Committee discussed the estimates used as inputs to the bovine model, to ensure they appropriately reflect the business and market in which Genus operates. The Committee debated and considered management's assumptions and estimates, through the current period, and discussed and reviewed the external auditor's report on this area, before concurring with management's proposals. The Committee was satisfied with management's accounting treatment, including the income statement increase of £5.3m in the value of porcine biological assets and the reduction of £34.0m in the value of bovine biological assets.
Goodwill and intangible assets	Genus has £102.0m of goodwill (tested annually for impairment) and £78.7m of intangible assets (tested for any indications of impairment) on the Group balance sheet. Within intangible assets, Genus's policy is to capitalise certain development costs and to perform periodic impairment reviews of the carrying amounts. At the balance sheet date, the Group had £19.7m of capitalised development expenses in respect of IntelliGen. The Committee discussed management's goodwill and intangible asset impairment reviews, as well as the external auditor's report on this area, including its assessment of management's models underpinning the estimates and judgements. After due challenge and debate, the Committee was satisfied with management's assumptions and judgements.
Presentation and disclosure of exceptional and adjusting items	Genus had £49.5m of adjusting items, including £5.9m of exceptional items in the Group income statement. The Committee considered the presentation of these items in the financial statements, due to the nature of these items and the guidelines on the use of alternative performance measures, issued by the European Securities and Markets Authority. The Committee received detailed reports from management outlining the judgements applied in relation to the disclosure of adjusting items, which include net IAS 41 valuation movement on biological assets, amortisation of acquired intangible assets, share-based payment expense and exceptional items. For adjusting items, the Committee took into consideration their volatility and lack of correlation to the underlying progress and performance of the business. Specifically for exceptional items, the Committee took into consideration the materiality, frequency, and nature of the items. Following this detailed review and active discussion with management, the Committee has concluded that the presentation of the financial statements is appropriate.

AUDIT COMMITTEE REPORT

Monitoring Business Risks

The Committee discussed the principal risks identified with management and the external and internal auditors, along with management's plans to mitigate them, and received regular detailed updates from the risk owners and their direct reports.

In addition to reviewing the principal risks, the Committee received detailed updates on the following risk areas:

- **Enterprise system:** the Committee received updates on the project to implement a new enterprise-wide business system. The Committee also considered the success criteria defined by the project and the benefit realisation assessment.
- **Cyber security:** the Committee requested and received updates from the global Chief Information Officer on the cyber security risk faced by the Group and the activities being undertaken to strengthen infrastructure and systems security.

Internal Control System

Our risk management process and system of internal control are described in detail on pages 55 and 56. The Committee reviewed the approach to internal control standardisation and the results of the key financial controls self-assessment process, which is performed every six months. The Committee also reviewed internal audit's findings at each scheduled meeting, and received updates on the implementation of management's remedial actions.

The Committee further reviewed the Group's whistleblowing policy and bribery prevention procedures.

The Committee conducted its annual review of the effectiveness of the Group's internal controls and disclosures. The review did not identify any material deficiencies. However, Genus routinely identifies and implements control improvement opportunities and the Committee discussed with management various opportunities to further strengthen the Group system of internal control.

Going Concern and Viability Statements

The Committee supported the Board in performing its assessment of the going concern and long-term viability of the Group, with input from management. The viability assessment, which was based on the Group's operating, capital and funding plans, included consideration of the principal risks, as detailed on pages 12 to 13, and the liquidity and capital projections over the period. The Committee was satisfied that the viability statement could be provided and advised the Board that three years was a suitable period of review. The going concern and viability statement is disclosed on page 14 of the report.

Oversight of Internal Audit and External Audit Internal Audit

The Committee reviewed and agreed the internal audit function's scope, terms of reference, resources and activities. The Head of Risk Management and Internal Audit provided regular reports to the Committee on the work undertaken and management's responses to proposals made in the internal audit reports issued during the year. The Committee continued to meet the Head of Risk Management and Internal Audit without management being present. The Committee reviewed and was satisfied with the internal audit function's performance.

External Audit

The external auditor, Deloitte LLP, was first appointed as the Company's external auditor for the period ended 30 June 2006. Following a formal audit tender process, it was reappointed for the audit of the financial year ended 30 June 2016 and Andrew Bond was appointed as lead audit partner. The Company has complied with the Statutory Audit Services Order for the financial year under review.

The Committee reviewed and agreed the external auditor's scope of work and fees, held detailed discussions of the results of its audits and continued to meet the external auditor without management being present. The Committee reviewed the external auditor's objectivity and independence and the Group's policy on engaging the external auditor to supply non-audit services. The Committee received details of the external auditor's non-audit services to the Group, reviewed the nature and monetary levels of these services, which stood at 12% of audit fees, and reviewed compliance with the Group's Non-Audit Services by Auditor Policy (see note 8 to the financial statements for further details). The Committee was satisfied that using Deloitte for such services did not impair its independence as the Group's external auditor.

The Committee assessed the external auditor's performance in conducting the audit for the June 2017 year end, based on questionnaires completed by key finance staff and Committee members. The questionnaires covered the external auditor's fulfilment of the audit plan, the auditor's robustness and perceptiveness in its handling of key accounting and audit judgements, the content of the external auditor's reports, and cost effectiveness. The Committee also considered any regulatory reviews performed on the external auditor. While noting some opportunities for further improvement, the Committee concluded that the external auditor was effective and was satisfied with the plan put forward by the external auditor to respond to the opportunities for improvement identified.

DIRECTORS' REMUNERATION REPORT

SECTION A: ANNUAL STATEMENT

CONTINUED PROGRESS IN CHANGING GENUS INTO AN AGRICULTURAL BIOTECHNOLOGY PIONEER

Letter from the Chairman

Dear Shareholder

On behalf of the Board, I am pleased to present the Directors' Remuneration Report for 2018. It describes the significant progress made by the business over the past year and the linkage to reward outcomes for our Executive Directors. The Remuneration Committee's terms of reference can be found on the Company's website and a summary of the current remuneration policy ('Remuneration Policy') agreed by shareholders in 2016 is summarised at the end of this disclosure.

Company Progression

Over the past few years, and particularly since the appointment of Karim Bitar as Chief Executive, it has been my pleasure to witness the business commence a process of fundamental transformation which is well placed to continue in the years ahead. This has been achieved whilst still securing robust annual performance, of which specific highlights are shown below and referenced elsewhere in the Annual Report. The business has demonstrated continued and sustained progress in what is a significant journey in changing the business into a global science based agricultural pioneer underpinned by

leading-edge science. Our Remuneration Policy has been designed to provide motivation and reward for the Executive Directors and their leadership team to deliver this evolving strategy and drive the long-term success of the Company.

Your Company is very different to the one when Karim Bitar was appointed. Over the past six years Genus has evolved significantly in terms of size and complexity. Adjusted basic earnings per share has grown by 51.8% from 50p in 2012 to 75.9p in 2018. Returns generated to shareholders have been strong, significantly outperforming the FTSE 250 index on which the business is listed. The share price over this period has grown by over 100% from £12.41 to £26.36.

This performance has been achieved thanks to the strong leadership of Karim Bitar and Stephen Wilson, fully supported by the Board, creating a clear vision of the Company's potential and a Remuneration Policy which has so far successfully incentivised, rewarded and retained these individuals. This vision has been shared throughout the organisation and has resulted in closer teamwork and a more acute monitoring of performance and direction at all levels within the Company. This high-calibre leadership has laid the foundations for this transformational journey to continue with the potential to create significant future value for shareholders.

BUSINESS ACHIEVEMENT

Annual Bonus – Core Bonus

- Adjusted profit before tax growth of 11.3% in constant currency excluding gene editing
- Strong cash generation
- Good progress against personal targets

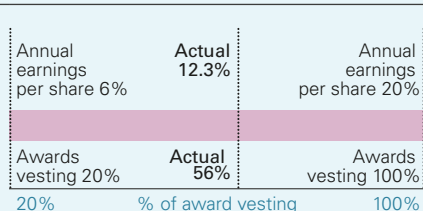
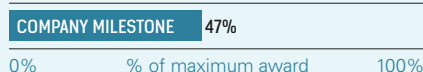
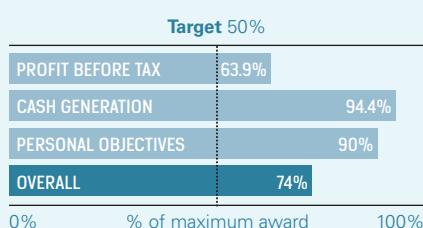
Annual Bonus – Company Milestones

- Strong performance in securing key customers utilising IntelliGen technology.
- Strong progress on second project but milestone target set by the Committee not yet met in 2018.

Long-Term – Performance Share Plan ('PSP')

- Three-year average adjusted earnings per share growth of 12.3% after the costs of share based payments and excluding gene editing
- Strong share price growth over the performance period

REMUNERATION TARGETS



OUTCOMES FOR EXECUTIVES

- Total award of 74% of maximum. One quarter of this award is made in shares deferred for three years

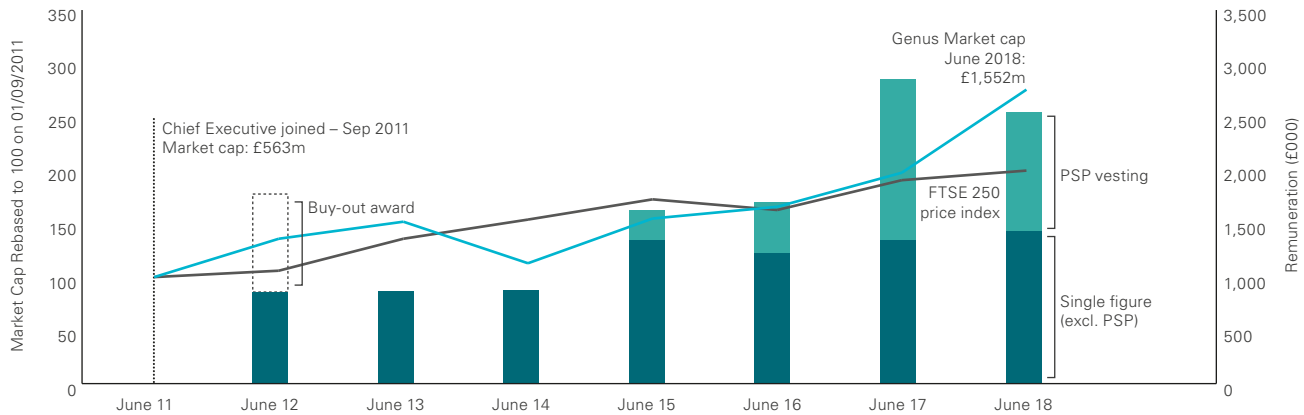
- Total award of 47% of maximum available, all deferred into shares for three years

- 56% of the PSP award vested for both Executives

DIRECTORS' REMUNERATION REPORT

SECTION A: ANNUAL STATEMENT

Company Performance and Chief Executive Remuneration



Market capitalisation calculated as the 3-month average to respective financial year end. Start market cap was the spot market cap on 1 September 2011. End market cap of £1,552m calculated as the 3-month average to 30 June 2018

One of the key principles of our Remuneration Policy is the alignment of executives' interests with those of shareholders. Over the last five years, as can be seen from the chart above, there has been a strong link between the total remuneration of the Chief Executive and the returns delivered to shareholders.

How Performance has been Seen in Reward Outcomes for the Executives in 2018

The Core Bonus element of our annual bonus considers key annual financial measures (cash and profit) and the executives' individual performance against defined and measurable targets. The combined impact of individual and business performance means that 74% of the bonus opportunity is payable to the Chief Executive and Group Finance Director respectively under the Core Bonus element of the annual bonus. One quarter of the award is made in shares under the Deferred Share Bonus Plan ('DSBP') which are deferred for three years and released subject to continued employment.

The Company Milestones element of the annual bonus allows us to recognise key areas of strategic progress. The Committee evaluated performance in key identified strategic areas (in particular the development of IntelliGen) as described in more detail within this report. We also set targets against further projects where we have seen strong progress, but as yet have not fulfilled the criteria we set as a Committee to represent achievement under the Company Milestones element. Therefore, having considered the performance achieved the Committee determined that awards of shares worth 35% of salary would be made to the Chief Executive and 23.3% of salary to the Group Finance Director. These awards are made in shares which are deferred for three years. Further details of payments relating to the Core Bonus and Company Milestones are set out on pages 71 and 72.

We remain committed to the Company Milestones element of the bonus – used to drive strategic achievement and recognise significant strategic evolution of the business and retain key talent. It is to be expected within our industry that strategic milestones do not dovetail into particular financial years, but rather occur in a less cyclical way. We have carried forward the opportunity to make further awards under the Company Milestones element into 2019, the details of which we will be able to share with shareholders once complete.

Awards under the Performance Share Plan ('PSP') granted in September 2015 vest in September 2018. These awards were linked to our EPS performance over the three-year period. Average annual EPS growth of 12.3% means that 56% of these shares will vest. We have seen significant growth in the share price over the performance period and as at the point of drafting this report it is around double that when the awards were granted in 2015. This growth is reflected in the values shown within the single figure of total remuneration, as we are required to disclose under the reporting regulations. Under our Policy, executives are obliged to retain the post-tax number of shares for a further two years post vesting.

Our Role as a Committee

We consider the Committee's effectiveness on a regular basis and have discussed what we see as strengths and the opportunity for future evolution of the Committee. This is against a backdrop of changing expectations of the role of the Committee and legislative developments. An evaluation of the Committee's effectiveness took place during the year. The review found the Committee feels it is working effectively, and that it has good support from management and external advisers and that sound solutions and outcomes are identified.

We recognise the increasingly broad remit for remuneration committees and the recent announcement of the revisions within the 2018 UK Corporate Governance Code (the 'Code') and the implications for the way we directly govern reward for certain individuals within our global leadership team. While the amended Code will apply to future accounting periods beyond our 2019 year, we note that many expectations of the Code are already seen within the way we operate as a Committee in considering wider workforce remuneration and conditions and the way we structure reward within Genus to ensure that it is effected in a fair manner.

Over the past year we have discussed the gender pay analysis from within our largest UK business (Genus Breeding Limited). This showed a median pay gap of 12.2% linked to the existing gender profile within our business and we noted the higher proportions of women who are joining the organisation, changing the gender balance within the business, and we anticipate that the gap will fall over time.

The Committee also considered the findings of our global employee engagement survey ('Your Voice') and the views of around 2,250 employees across the Group and their feelings and attitudes to employment within our business, and the actions being taken by the business to both reinforce positive outcomes, but also address areas of concerns or opportunities identified.

Looking Forward to 2019 – Leadership and Talent Retention

Given the strategic transformation of the business, the Company needs to ensure that it retains and motivates senior leadership to continue to deliver the business strategy and create value for shareholders. A fundamental component of retaining executives of such high calibre is to ensure that base salary levels are positioned at a level which reflects their experience and the value the individual brings to the Company and contributes to overall corporate success. Karim has seen no market adjustment to his base salary over the last five years despite the significant change in the complexity and size of the business and the returns generated for shareholders. Pay increases for the Executive Directors have historically tracked below the general increase for the UK-based workforce.

Following consultation with our major shareholders, the Committee is bringing his base salary to a higher level, reflecting comparator group insight from both the FTSE 250 and a global comparator (the US biotech sector). A salary increase of 15% will be applied to Karim. Such an increase will bring his base salary to around upper quartile of the FTSE 250 and total remuneration levels competitive with the US biotech sector. The Committee firmly believes that this positioning is appropriate for a Chief Executive of Karim's calibre. Furthermore, the proposed increases ensure that overall total remuneration levels are competitive against global competitors in the agri/biotechnical environment where we observe levels of remuneration that can be many multiples of that being paid to Karim. Stephen Wilson has had a very strong year and we will increase his salary by 4%, in line with the way we link strong individual performance to pay investment across the wider employee population.

The Committee is conscious of the impact of a base pay increase to total remuneration and the wider environment around executive pay levels. The adjustment for the Chief Executive is designed as a one-off adjustment to reflect the changing nature of Genus as a business. We would not expect any further adjustments to the Chief Executive's base salary for the remainder of this remuneration policy or the life of the next policy in excess of that applied to the general UK workforce. We will continue to set stretching targets for variable schemes in place.

Genus as a Global Employer

Across the business we continue to promote a pay-for-performance philosophy, helping us secure and retain key talent for the future, and reward contribution in line with our values. This philosophy applies throughout the organisation (including the United States where over 37% of our workforce is and our R&D function is centred), and we recognise the importance of a single reward framework within the organisation, capable of rewarding strong individual and collective contributions throughout our business. We will also be watching developments in the evolution of corporate governance and the impact on the new Code on widening the remit of the Committee. We will also strive to reduce our gender pay gap by proactively continuing to change the gender demographics of our workforce.

This is the second year of operation for our current Remuneration Policy and we continue to believe that the structure appropriately aligns reward with Company performance and drives the right behaviours of our leaders. We closely monitor how the Policy is meeting our stated aims and will continue to review this ahead of presenting an updated Policy to shareholders for approval at our 2019 AGM. As will be evident from the above detail, it is important that our Policy continues to reflect the nature of the business and is able to ensure we can continue to attract and retain the high-calibre leadership required.

As a result of the clear alignment between excellent corporate performance, significant shareholder value creation and the resultant remuneration outcomes I have no hesitation in commending the Remuneration Report to you for your support and approval at our forthcoming AGM. If you have any feedback I can be contacted at remunerationchair@genusplc.com.

Nigel Turner Senior Independent Non-Executive Director and Chair of the Remuneration Committee

This Remuneration Report has been prepared so it complies with the provisions of the Large and Medium-sized Companies and Groups (Accounts & Reports) (Amendment) Regulations 2013, which set out the disclosures required for Directors' remuneration as at the reporting date. The Report is also in accordance with the requirements of the Financial Conduct Authority's Listing Rules.

The 'auditable parts' of the Directors' Remuneration Report state whether, in the auditor's opinion, the parts of the Report that have been subject to audit have been properly prepared in accordance with the legislation. We have highlighted the parts of this Report which have been audited.

DIRECTORS' REMUNERATION REPORT

SECTION B: AT A GLANCE

For more detail
please see pages 71 to 84

WHAT EXECUTIVE DIRECTORS WERE PAID IN 2018:

	Chief Executive Karim Bitar	Group Finance Director Stephen Wilson																
1 Base Salary and Benefits	<p>BASE SALARY £554,966</p> <p>BENEFITS £161,349</p>	<p>BASE SALARY £376,066</p> <p>BENEFITS £69,647</p>																
<ul style="list-style-type: none"> Salaries were effective from 1 September 2017 Benefits include a car allowance for each Executive Director and a pension allowance of 25% of base salary for the Chief Executive and 15% for the Group Finance Director 																		
2 Annual Bonus – Core Bonus	<p>Company performance Target 50%</p> <table border="1"> <tr> <td>PROFIT BEFORE TAX</td> <td>63.9%</td> </tr> <tr> <td>CASH GENERATION</td> <td>94.4%</td> </tr> <tr> <td>PERSONAL OBJECTIVES</td> <td>90%</td> </tr> <tr> <td>OVERALL</td> <td>74%</td> </tr> </table> <p>0% % of maximum award 100%</p> <p>↓</p> <p>CORE ELEMENT £514,611 MAXIMUM OPPORTUNITY £695,420</p> <p>CORE ELEMENT £348,719 MAXIMUM OPPORTUNITY £471,243</p>	PROFIT BEFORE TAX	63.9%	CASH GENERATION	94.4%	PERSONAL OBJECTIVES	90%	OVERALL	74%	<p>Company performance Target 50%</p> <table border="1"> <tr> <td>PROFIT BEFORE TAX</td> <td>63.9%</td> </tr> <tr> <td>CASH GENERATION</td> <td>94.4%</td> </tr> <tr> <td>PERSONAL OBJECTIVES</td> <td>90%</td> </tr> <tr> <td>OVERALL</td> <td>74%</td> </tr> </table> <p>0% % of maximum award 100%</p> <p>↓</p> <p>CORE ELEMENT £348,719 MAXIMUM OPPORTUNITY £471,243</p>	PROFIT BEFORE TAX	63.9%	CASH GENERATION	94.4%	PERSONAL OBJECTIVES	90%	OVERALL	74%
PROFIT BEFORE TAX	63.9%																	
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CASH GENERATION	94.4%																	
PERSONAL OBJECTIVES	90%																	
OVERALL	74%																	
<ul style="list-style-type: none"> Maximum opportunity 125% of salary comprising 80% adjusted profit before tax, 20% cash generation and 25% personal objectives Overall award 74% of maximum 25% of the total award under this element made in shares deferred for three years 																		
3 Annual Bonus – Company Milestones	<p>Company performance</p> <table border="1"> <tr> <td>COMPANY MILESTONES</td> <td>47%</td> </tr> </table> <p>0% % of maximum award 100%</p> <p>↓</p> <p>COMPANY MILESTONE £194,718 MAXIMUM OPPORTUNITY £417,252</p> <p>COMPANY MILESTONE £87,965 MAXIMUM OPPORTUNITY £188,497</p>	COMPANY MILESTONES	47%	<p>Company performance</p> <table border="1"> <tr> <td>COMPANY MILESTONES</td> <td>47%</td> </tr> </table> <p>0% % of maximum award 100%</p> <p>↓</p> <p>COMPANY MILESTONE £87,965 MAXIMUM OPPORTUNITY £188,497</p>	COMPANY MILESTONES	47%												
COMPANY MILESTONES	47%																	
COMPANY MILESTONES	47%																	
<ul style="list-style-type: none"> Maximum opportunity of 75% of salary for the Chief Executive and 50% of salary for the Group Finance Director Company Milestones linked to strategic progress resulted in share awards made to Chief Executive and Group Finance Director (35% and 23.3% of salary respectively) All awards are to be made in shares deferred for three years 																		
4 PSP	<p>Awards granted in September 2015 vested at 56% of maximum based on average annual adjusted earnings per share growth achieved of 12.3%</p>	<p>Company performance</p> <table border="1"> <tr> <td>Annual adjusted EPS</td> <td>Actual 12.3%</td> </tr> <tr> <td></td> <td>Actual 56%</td> </tr> </table> <p>6% 20%</p> <p>20% % of award vesting 100%</p> <p>Total shares released 44,156 Total shares released 26,182</p> <p>↓</p> <p>INDICATIVE VALUE £1,114,056¹ INDICATIVE VALUE £660,564¹</p>	Annual adjusted EPS	Actual 12.3%		Actual 56%												
Annual adjusted EPS	Actual 12.3%																	
	Actual 56%																	
5 Total Remuneration Breakdown	<p>TOTAL £2,539,700</p> <p>PERFORMANCE SHARES £1,114,056</p> <p>COMPANY MILESTONES £194,718</p> <p>CORE ELEMENT £514,611</p> <p>BASE SALARY AND BENEFITS £716,315</p>	<p>TOTAL £1,542,961</p> <p>PERFORMANCE SHARES £660,564</p> <p>COMPANY MILESTONES £87,965</p> <p>CORE ELEMENT £348,719</p> <p>BASE SALARY AND BENEFITS £445,713</p>																

¹ Calculated based on the average share price for the final quarter of financial year ended 30 June 2018 (2,523p).

WHAT EXECUTIVE DIRECTORS CAN EARN IN 2019 AND HOW:

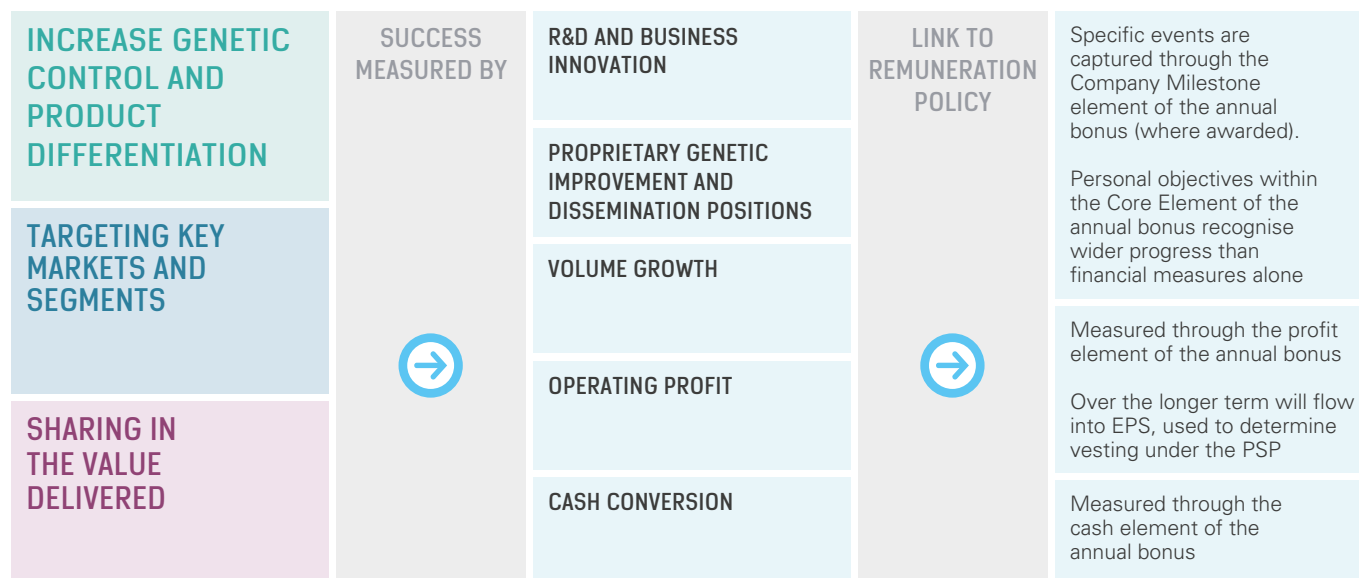
	Chief Executive Karim Bitar	Group Finance Director Stephen Wilson
<p>1 Base Salary and Benefits</p> <ul style="list-style-type: none"> Salaries were increased by 15% for the Chief Executive and 4% for the Group Finance Director from 1 September 2018, with new values of £639,786 and £392,074 There are no changes to the range of benefits provided 	<p>BASE SALARY £625,878</p> <p>BENEFITS £179,077</p>	<p>BASE SALARY £389,560</p> <p>BENEFITS £71,672</p>
<p>2 Annual Bonus – Core Bonus</p> <p>The measures for the Core Bonus element are unchanged</p> <ul style="list-style-type: none"> Adjusted profit before tax growth → 80% of salary Cash generation → 20% of salary Personal objectives → 25% of salary <p>For the adjusted profit before tax growth, target bonus requires 10% growth and maximum requires 15% growth in constant currency</p>	<p>Maximum of 125% of salary, target award of 62.5% of salary</p> <p>ADJUSTED PROFIT BEFORE TAX GROWTH → 80% OF SALARY</p> <p>CASH GENERATION → 20% OF SALARY</p> <p>PERSONAL OBJECTIVES → 25% OF SALARY</p>	
<p>3 Annual Bonus – Company Milestones</p> <ul style="list-style-type: none"> The Remuneration Committee has determined that this element will be included in the reward structure for 2019 Due to commercial sensitivity, this will be disclosed retrospectively in the 2019 Annual Report Any awards to be made in shares deferred for three years 	<p>Maximum award of 75% of salary for Chief Executive</p> <p>SHARES WORTH UP TO 75% OF SALARY</p> <p>0% Maximum 75%</p>	<p>Maximum award of 50% of salary for Group Finance Director</p> <p>SHARES WORTH UP TO 50% OF SALARY</p> <p>0% Maximum 50%</p>
<p>4 PSP (September 2016 Awards)</p> <ul style="list-style-type: none"> The vesting of these awards depends on the adjusted earnings per share (excluding gene editing costs) achieved in the three financial years ending 30 June 2019 	<p>Chief Executive – award (shares)</p> <p>UP TO 58,186 SHARES</p>	<p>Group Finance Director – award (shares)</p> <p>UP TO 34,500 SHARES</p>
<p>5 PSP (September 2018 Awards)</p> <ul style="list-style-type: none"> The vesting of these awards will be subject to an adjusted earnings per share growth, with the 2021 adjusted earnings per share being compared to the 2018 adjusted earnings per share (excluding gene editing costs) 5% annual growth threshold – 20% vesting 15% annual growth – 100% vesting Vesting levels will be calculated based on a straight-line basis between the above values 	<p>Award to Chief Executive of 200% of salary</p> <p>5% Annual adjusted EPS 15%</p> <p>20% % of award vesting 100%</p>	<p>Award to Group Finance Director of 175% of salary</p>

DIRECTORS' REMUNERATION REPORT

SECTION C: REMUNERATION AND PERFORMANCE STATEMENT

Genus's Strategy and its Link to Performance-Related Pay

See pages 85 to 88 for a summary of our Remuneration Policy, as agreed by shareholders in 2016. Our strategy and the way this is linked to variable reward is shown below.



Performance Components and Their Impact on Remuneration

	2017	2018	Movement %	Impact on remuneration
Adjusted results				
Revenue	£459.1m	£470.3m	2	Input to annual bonus profit and earnings per share in PSP.
Adjusted profit before tax	£56.4m	£58.5m	4	Annual bonus measure.
Generation of free cash flow	£25.4m	£24.3m	(4)	Annual bonus measure.
Adjusted earnings per share	69.4p	75.9p	9	PSP performance condition.
Dividend per share	23.6p	26.0p	10	Executives rewarded via dividend equivalent feature of deferred bonuses and PSP awards.
Share price at year end	1,780p	2,636p	48	Determines the value of deferred bonuses and PSP awards.

Values in the table are in actual currency as shown in the Annual Report. A number of adjustments are made to these for the purposes of calculating awards under our incentive plans as described in this report and in line with our Remuneration Policy.

Executive Directors' Alignment to Share Price

The table below shows the value of shares currently held by the Executive Directors and those awarded under the Deferred Share Bonus Plan ('DSBP'), but not yet released (on a post-tax basis). It does not include those awards under the PSP which are scheduled to vest in the future subject to Company earnings per share performance, which have the potential to significantly increase the alignment of the Executives, subject to the resulting level of vesting.

	Shares owned	Shares awarded under the DSBP (post-tax)	Total share exposure	Indicative value on 1 July 2017 (£) ¹	Indicative value on 30 June 2018 (£) ²	Difference (£)	Consequence of a +/- £2 share price change (£)	Conclusion
Chief Executive	68,213	20,950	89,163	1,624,550	2,249,582	625,032	178,326	Executives remain aligned to share price
Group Finance Director	39,528	12,147	51,675	941,519	1,303,760	362,241	103,350	

¹ Value calculated using the average share price for the final quarter of the financial year ended 30 June 2017 (1,822p).

² Value calculated using the average share price for the final quarter of the financial year ended 30 June 2018 (2,523p).

SECTION D: ANNUAL REPORT ON REMUNERATION

Introduction

This section of the Directors' Remuneration Report is subject to an advisory vote at the AGM.

We have split this section into the following chapters to balance our formal disclosure obligations with our desire to have a clear and understandable report:

1. What the Executive Directors Were Paid in 2018.
2. What the Executive Directors Can Earn in 2019.
3. The Process the Committee Followed to Arrive at These Decisions.
4. How the Chief Executive's Pay Compares to Shareholder Returns Over the Past Nine Years and to Employees' Pay.
5. The Chairman and Non-Executive Directors' Fees.
6. Details of the Directors' Shareholdings and Rights to Shares.
7. Details of the Executive Directors' Contracts and Non-Executive Directors' Letters of Appointment.

1. What the Executive Directors Were Paid in 2018

Executive Directors' Single Total Remuneration Figure (Audited)

The following table shows a single total figure of remuneration for the 2018 financial year for each of the Executive Directors and compares this figure to the prior year.

	Year	Salary and fees £000s	Benefits ¹ £000s	Pension ² £000s	Subtotal for fixed pay £000s	Annual bonus ³ (Core Bonus) £000s	Annual bonus ⁴ (Company Milestone) £000s	PSP ⁵ £000s	Subtotal for variable pay £000s	Total £000s
Karim Bitar	2018	555	23	138	716	515	195	1,114 ⁵	1,824	2,540
	2017	548	23	137	708	312	329	1,507 ⁶	2,148	2,856
Stephen Wilson	2018	376	13	57	446	349	88	661 ⁵	1,098	1,544
	2017	371	13	56	440	212	149	894 ⁶	1,255	1,695

1 Benefits include a car allowance of £20,000 for Karim Bitar and £12,000 for Stephen Wilson. Insured benefits include life assurance, private medical insurance and a medical screen.

2 Executive Directors receive a cash allowance in lieu of pension, which is shown in the Pension column.

3 Bonus earned includes the 25% of the Core Bonus element which is deferred into Company shares.

4 All awards under the Company Milestone element are made in shares deferred for three years.

5 The value of the PSP is determined by the number of awards vesting in relation to performance in the period ended 30 June 2018. Dividend equivalents are not added to awards made under the PSP. The value shown for 2018 is based on the average share price for the final three months of the 2018 financial year (which was 2,523p).

6 The 2017 values shown as estimated in the previous Annual Report have been restated to reflect the actual value at vesting. The share price was 2,200p on 20 November 2017 when awards vested for the Chief Executive and Group Finance Director.

How the Bonuses for 2018 Were Calculated

Annual Bonus: Core Bonus Element

The 2018 bonuses for Executive Directors were calculated by performance against a challenging sliding scale of profit, cash flow and personal targets. Targets were set by the Committee to exclude the costs of gene editing. This was a decision by the Committee (as was the case in 2017) to ensure that management's reward was not unfairly affected by making the right long-term investment decisions on behalf of the business.

The following results were achieved for each element of the annual bonus incentive.

Bonus target ¹	Strategic objective	Proportion of salary (maximum)	Actual 2018 performance	Threshold	Target	Stretch	Extent to which targets were met (%)
Adjusted profit before tax ²	Year-on-year profit growth	80%	£66.7m	£59.9m	£65.8m	£68.8m	63.9%
Generation of free cash flow	Generate cash for reinvestment and dividend	20%	£24.3m	£18.6m	£21.6m	£24.6m	94.4%
Personal objectives	To build the foundation for future growth	25%	See page 72				Chief Executive 90% Group Finance Director 90%

1 The financial elements of the bonus are payable on a straight-line basis between each threshold, target and stretch level.

2 Adjusted profit before tax in constant currency was £61.5m (actual currency was £58.5m).

Overall extent to which targets for the Core Bonus element of the annual bonus were met:

Chief Executive 74%
Group Finance Director 74%

DIRECTORS' REMUNERATION REPORT

SECTION D: ANNUAL REPORT ON REMUNERATION

1. What the Executive Directors Were Paid in 2018 *continued*

Personal Objectives

Performance against personal objectives related to targets set in a number of areas that included customers, people, and product and service improvement. Performance against these targets is disclosed retrospectively, as follows:

Executive Director		Key achievements in the year	Payout against maximum of 25% of salary
Karim Bitar	Customer	<ul style="list-style-type: none"> Establishment of strategic partnership with Møllevang Successful global launch of Sexcel and IntelliGen Strategic clarity on beef and dairy go-to market strategy Effective integration of Hermitage across Europe 	90%
	People	<ul style="list-style-type: none"> Strengthening of ABS leadership and development of GELT Strong strategic alignment and engagement across Genus employees as captured through "Your Voice" process 	
	Product and service improvement	<ul style="list-style-type: none"> Robust advancement of PRRSv resistance technology Advancements of dairy, beef and porcine genetics portfolio, and strengthening of our IP position 	
Stephen Wilson	Customer/stakeholders	<ul style="list-style-type: none"> Advancing of strategic agenda through Board strategy day Delivery of 2018 Capital Markets Day with positive feedback from Shareholders 	90%
	People	<ul style="list-style-type: none"> Enhanced employee engagement and improved capabilities within IT Continued to strengthen the accounting function and processes with a strong business partnering model in Finance 	
	Product and service improvement	<ul style="list-style-type: none"> Enterprise System project launched and tracking to project plan Important progress on several strategic priorities including the Møllevang relationship, the launch of Sexcel and IntelliGen securing third party contracts Improved Company-wide technology infrastructure with upgraded hardware and software and end-user service provisioning Maintained tight internal management disciplines and cash flow management, risk management and controls 	

Annual Bonus: Company Milestones

The Committee included this element of the annual bonus for 2018 as disclosed in our 2017 Directors' Remuneration Report.

The maximum opportunity under the Company Milestone element of the bonus was an award of shares deferred for three years and worth up to 75% of salary for the Chief Executive and 50% of salary for the Group Finance Director. The performance criteria and resulting awards as determined by the Committee are as follows:

Performance criteria	Outcome/progress made	Resulting award
Generation of revenue from Sexcel, commercialising the technology and securing long-term benefit from it.	Highly successful launch of product across multiple markets. Revenue generation in excess of budgets.	Having reviewed the level of progress made against these pivotal areas for the business the Committee determined that partial awards under the Company Milestone element should be made.
Securing key customers to use IntelliGen technology.	Signed contracts to produce in excess of targets set.	
Defined outputs on additional business project.	Strong progress was made during the year but the specific target set by the Committee was not achieved. The project remains commercially sensitive and has not been disclosed within the report for this reason.	Award levels were determined of deferred shares worth 35% of salary for the Chief Executive and 23.3% of salary for the Group Finance Director.

As a result of this performance, the total annual bonus (comprising both the Core Bonus and Company Milestone elements) awarded to the Executive Directors was:

	Annual bonus: Core Bonus			Annual bonus: Company Milestone		Total bonus		
	Extent to which targets were met	(75%) Cash bonus	(25%) Deferred shares	Extent to which targets were met	Deferred shares	Total cash	Deferred shares ¹	Total
Karim Bitar	74%	£385,958	£128,653	47%	£194,718	£385,958	£323,371	£709,329
Stephen Wilson	74%	£261,539	£87,180	47%	£87,965	£261,539	£175,145	£436,684

¹ The number of shares will be calculated in September when bonuses are paid.

How the Performance Share Plan Figure was Calculated in the Single Total Remuneration Table

Karim Bitar's and Stephen Wilson's PSP awards granted on 14 September 2015 were subject to a performance condition, based on the growth in adjusted earnings per share from 2015 to 2018. The range of targets applicable to the awards, which had a value of 200% of salary for the Chief Executive and 175% of salary for the Group Finance Director, was as follows:

Average annual growth in adjusted earnings per share ¹	% of award vesting
Less than 6% per annum	Nil
6% per annum	20%
20% per annum	100%

¹ Straight line vesting between the points in the above table.

The Committee exercised discretion to calculate the long-term award after excluding gene editing costs incurred during the performance period, to avoid an unintended impact on the Executives' remuneration whilst making long-term decisions in support of value creation. This is consistent with the approach previously communicated to shareholders and taken in 2016 and 2017.

The adjusted 2018 earnings per share after the cost of share-based payments and adjusting for costs relating to gene editing was 75.4p. This represents an average annual growth in adjusted earnings per share of 12.3% compared to the comparable 2015 adjusted earnings per share figure (after the cost of share-based payments). The resulting level of vesting is therefore 56% of maximum for both the Chief Executive and Group Finance Director¹.

Karim Bitar's award was over a maximum of 78,850 shares, so the actual level of vesting is 44,156 shares and these will vest on 14 September 2018. Stephen Wilson's award was over a maximum of 46,753 shares, so the actual level of vesting is 26,182 shares and these will vest on the same date.

The Company's average share price for the period from 1 April 2018 to 30 June 2018 was 2,523p, meaning that the values shown for these awards within the single figure table are £1,114,056 for Karim Bitar and £660,564 for Stephen Wilson.

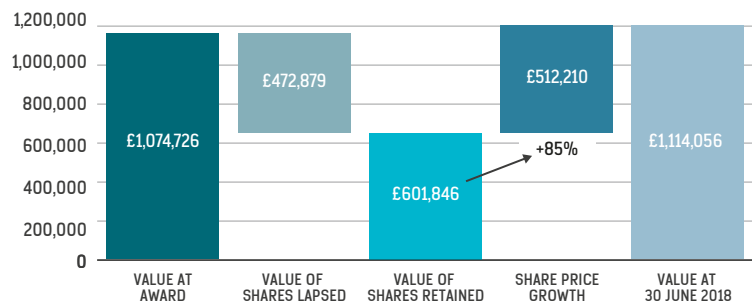
¹ The average annual earnings per share growth including gene editing costs after share based payments was 8.4% and the associated vesting level would have been 33.7% of maximum.

DIRECTORS' REMUNERATION REPORT

SECTION D: ANNUAL REPORT ON REMUNERATION

1. What the Executive Directors Were Paid in 2018 *continued*

Breakdown of Vesting for Chief Executive:



2015 PSP AWARD:

Key points:

- Our average annual earnings per share growth of 12.3% means that 56% of the original grant of shares will vest.
- Significant share price growth over the period has been seen, from 1,363p at award to 2,523p (based on the average price over the last three months of the year)
- This has increased the value of the shares that vest by over 85%

Material Contracts

There were no other contracts or arrangements during the financial year in which a Director of the Company was materially interested and/or which were significant in relation to the Group's business.

Payments for Loss of Office and Payments to Former Directors (Audited)

There were no payments for loss of office in the year or to any former Directors of the business.

Executive Directors' External Appointments

Executive Directors are permitted to accept an external non-executive position, with the Board's approval. Any fees received in respect of these appointments may be retained by the Executive. The Chief Executive (Karim Bitar) was appointed as a Non-Executive Director of Spectris Plc with effect from 1 July 2017 and received fees totalling £55,000 during the year.

2. What the Executive Directors Can Earn in 2019

A summary of this chapter is given on page 69.

Base Salary

As outlined in the letter from the Committee Chairman, an increase in the salary of the Chief Executive of 15% is being implemented, designed to reflect the experience he brings to the role and the ongoing strategic transformation of the business. The salary of the Group Finance Director will be increased by 4%, in line with the way we link strong individual performance to pay investment across the wider employee population.

In line with other UK employees, the date of salary review is 1 September 2018. The Executive Directors' current salary levels (with effect from 1 September 2018) are as follows:

- Karim Bitar: £639,786 (15% increase); and
- Stephen Wilson: £392,074 (4% increase).

Benefits

The Executive Directors will receive benefits including a car allowance, private fuel (for Chief Executive), life assurance, an annual medical screen and private medical insurance.

Pension

In lieu of Company pension contributions, the Company pays the Chief Executive and Group Finance Director a taxable pension allowance of 25% and 15% of basic salary per annum respectively.

Performance-Related Annual Bonus

Consistent with the Remuneration Policy agreed by shareholders in 2016, the Company bonus scheme for 2019 for the Executive Directors is as follows:

Annual Bonus: Core Bonus Element

Value of bonus	A Core Bonus element of 125% of salary based on profit, cash generation and personal objectives.		
Bonus	Chief Executive/Group Finance Director On-target value of bonus 62.5% (Core Bonus element)		
Performance measures	Adjusted profit before tax	– 80% of salary weighting.	
	Cash generation	– 20% of salary weighting.	
	Personal objectives	– 25% of salary weighting.	
Calibration of profit target	No bonus is payable in respect of profit unless the prior year's result is exceeded. Thereafter, the Core Bonus award is determined on the following basis:		
		Payout (profit element)	Percentage of salary awarded
	Growth on prior year adjusted profit before tax ¹		
	0%	0%	0%
	10% per annum delivers	50%	40%
	15% per annum delivers	100%	80%
	Straight-line payout between performance points.		
	¹ In constant currency and excluding gene editing costs.		
Calibration of cash generation target	The cash target is the budgeted figure, with a specific range of £3m below the target and £3m above. Specific numbers were set (rather than a percentage range) to ensure Executives are focused on actual cash generation.		
Calibration of personal objectives	Personal objectives are linked to successful implementation of objectives for the Executive Directors. It would be commercially sensitive to disclose them in advance. We will retrospectively disclose performance against these targets.		
Bonus deferral	Of the 125% Core Bonus element, one quarter of the total award will be deferred by way of shares for three years and will vest subject to continued employment, other than in certain good leaver circumstances.		
Malus and clawback	The Committee can apply malus to deferred bonuses and claw back any element of paid bonuses that should not have been awarded or paid, in the event of a material misstatement of the Group's annual results.		

Annual Bonus: Company Milestone Element

Value of bonus	The Company Milestones element allows for awards of deferred shares of up to 75% of salary for the Chief Executive and 50% of salary for the Group Finance Director.		
Performance measures	Company Milestones represent pivotal and significant events in the Company's development, which reposition the Company as an agricultural biotechnology pioneer. Such events would be significant strategic achievements and long-term value creating.		
	The Committee has determined that this element of the annual bonus will be included for 2019 for the Chief Executive and Group Finance Director. Due to commercial sensitivity the target and achievement against it including any resulting award will be disclosed retrospectively.		
Bonus deferral	For achievement of the Company Milestone element, any award will be deferred into shares for three years and will vest subject to continued employment, other than in certain good leaver circumstances.		

DIRECTORS' REMUNERATION REPORT

SECTION D: ANNUAL REPORT ON REMUNERATION

2. What the Executive Directors Can Earn in 2019 continued

Long-Term Incentives

Awards to be granted in 2019 will be granted in line with the Remuneration Policy approved by shareholders and under the 2014 PSP. The Chief Executive will be granted an award over shares worth 200% of salary and the Group Finance Director will be granted an award over shares worth 175% of salary. These awards are in line with those awarded in 2016, due to vest in 2019.

The performance targets for the awards to be granted in 2019 will primarily relate to average annual growth in adjusted earnings per share, measured over three years and excluding gene editing costs. The same approach will govern awards due to vest in 2019.

The range of targets for the 2019 awards is as follows:

Average annual growth in adjusted earnings per share ¹	Vesting ² (% award)
Less than 5% per annum	0%
5% per annum	20%
15% per annum	100%

1 Growth in adjusted earnings per share over the three-year performance period will be calculated on a simple average annual growth rate after the cost of share-based payments and excluding gene editing costs.

2 Straight-line vesting between performance points.

The Committee remains convinced that using adjusted earnings per share is the correct approach and is consistent with awards made in 2018. The Committee believes the above targets are appropriately challenging, that they incentivise Executives to deliver the Company's growth strategy and are therefore aligned with shareholders' interests. They also adhere to the principles of transparency and simplicity, to maximise the incentive provided to participants by the 2014 PSP.

As with awards currently granted under the 2014 PSP, the Committee will be able to scale back vesting based on earnings per share performance if it does not consider the vesting result to be consistent with the progress achieved against the Company's strategy during the performance period. This is considered appropriate to broaden the Executive team's focus beyond financial performance.

2014 PSP awards granted in 2019 will continue to require the Executives to retain the after-tax number of shares vesting in 2022 for two years. Clawback and malus provisions may be applied at the Committee's discretion, if the Company's results are found to have been materially misstated within three years of vesting.

3. The Process the Committee Followed to Arrive at These Decisions

The Committee complies with the UK Corporate Governance Code. It makes recommendations to the Board, within agreed terms of reference, on remuneration for the Executive Directors and other members of GELT. The Committee's full terms of reference are available on the Company's website at www.genusplc.com.

During 2018, the Committee comprised:

Director	Independent	Attendance at meetings
Nigel Turner (Chairman)	Yes	5/5
Duncan Maskell	Yes	5/5
Lykele van der Broek	Yes	5/5
Lysanne Gray	Yes	5/5
Lesley Knox ¹	Yes	0/0
Bob Lawson	Yes	5/5

1 Lesley Knox was appointed on 1 June 2018.

None of the Committee members has any personal financial interest (other than as shareholders), conflicts of interests arising from cross-directorships or day-to-day involvement in running the business. The Chief Executive and the Group Finance Director attend meetings at the Committee's invitation but are not present when their own remuneration is being discussed.

The Committee is supported by the Group HR Director, Group Reward Director, Finance and Company Secretariat functions.

During the year, the Committee continued to use PricewaterhouseCoopers ('PwC') for advice it considers is of value, objective and independent. PwC's fees were £35,000 for its remuneration advice to the Committee. PwC is a member of the Remuneration Consultants Group and complies with its Code of Conduct. Separate teams within PwC provide unrelated advisory service to the Group, including taxation, international assignments and actuarial advice.

During the year to 30 June 2018, the Committee met five times and considered the following matters:

JULY 2017

- Pay review for GELT members.
- Discussion of Company Milestones.

JULY 2017

- Review of Directors' Remuneration Report.

SEPTEMBER 2017

- Approval of the Directors' Remuneration Report for 2017.
- Determination of Annual Bonus awards in respect of 2017.
- Testing of the performance conditions and approval of the vesting levels of long-term share incentive awards granted in 2014.
- Approval of long-term share incentive awards under the Company's 2014 PSP and the associated performance targets.
- Review of shareholdings by Executive Directors and GELT.
- Approval of PSP for senior leadership and review of share dilution.

NOVEMBER 2017

- Review of shareholder voting on the Remuneration Policy and Annual Remuneration Report.
- Discussion of gender pay within Genus Breeding Limited.
- Review of remuneration reporting for 2017.

APRIL 2018

- Discussion of Company Milestone element within the annual bonus.
- Review of shareholder perspectives and trends in corporate governance and discussion of AGM season.
- Review of the Committee's effectiveness.

How Shareholders' Views are Taken into Account

We consulted with shareholders ahead of proposing a revised Remuneration Policy to shareholders at our 2016 AGM. We were pleased with the constructive dialogue with shareholders and for their time and feedback on the proposed policy changes. The result of the most recent vote in November 2017 was as follows:

	Vote on Directors' Remuneration Report (advisory)	
	Total number of votes	% of votes cast
For	41,359,892	97.2
Against	1,197,783	2.8
Total number of shares in respect of which votes were validly made	42,557,675	100
Votes withheld	190,033	

How Employees' Pay is Taken into Account

While the Company does not consult employees on matters of Directors' remuneration, the Committee does take account of the policy for employees across the workforce when determining the Remuneration Policy for Directors.

The Group HR Director facilitates this process, presenting to the Committee on the pay structures across the organisation and how they fit the Group's Remuneration Policy. The process includes a staff engagement survey that includes questions on pay, as well as consulting employees informally on their views of the current overall Remuneration Policy. This forms part of the feedback provided to the Committee and is used by the Group HR Director to assess the Remuneration Policy's ongoing effectiveness and the changes that should be made.

When setting the Executive Directors' base salaries, the Committee compares the salary increases proposed for each Executive Director within those proposed for employees in their geographical location, as well as considering the typical increase proposed across our UK business and the wider Group.

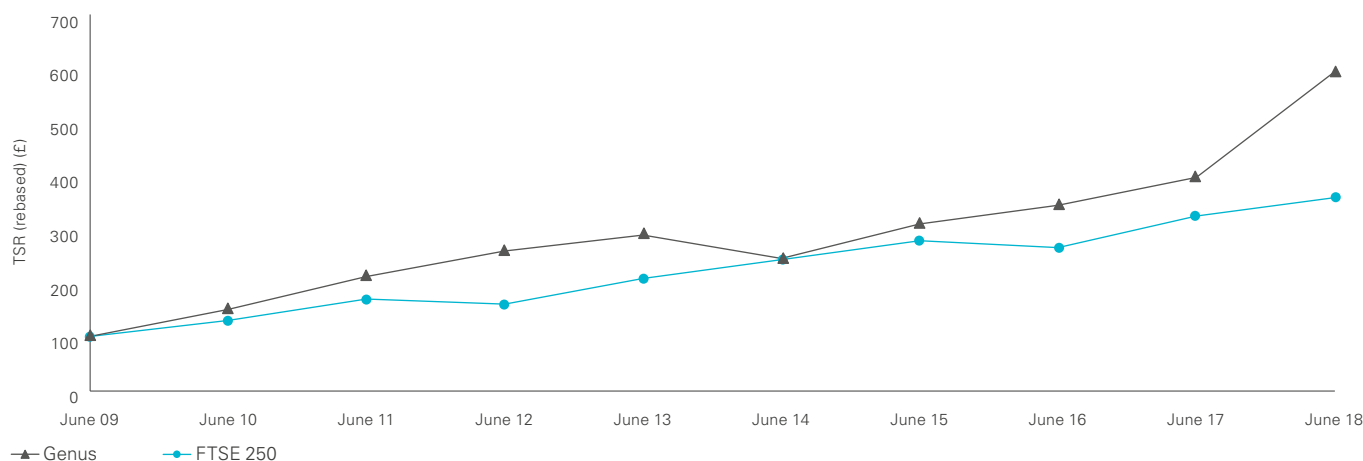
DIRECTORS' REMUNERATION REPORT

SECTION D: ANNUAL REPORT ON REMUNERATION

4. How the Chief Executive's Pay Compares to Shareholder Returns Over the Past Nine Years and to Employees' Pay Total Shareholder Return

The following graph shows the Company's performance measured by total shareholder return ('TSR'), compared with the TSR performance of the FTSE 250 Index. The FTSE 250 Index was selected as it represents a broad equity market of which the Company is a member.

Nine Years of Total Shareholder Return



This graph shows the value, by 30 June 2018, of £100 invested in Genus plc on 30 June 2009 compared with the value of £100 invested in the FTSE 250 index. Source: Thomson Datastream.

As required under the reporting regulations, the table below shows the "single figure" pay for the Chief Executive over the same period, to allow comparison between variability in reward and the shareholder experience over the same period.

	Year ending 30 June 2018										
	Richard Wood			Karim Bitar							
	2010	2011 ¹	2012	2012 ²	2013	2014	2015	2016	2017	2018	
Total remuneration (£000s)	£2,034	£2,383	£231	£1,776	£868	£877	£1,622	£1,704	£2,856	£2,540	
Annual bonus (% of max)	64%	94%	88%	77%	31%	32%	99%	78%	58.5% ³	63.8%³	
Total PSP vesting (% of max)	100%	88%	–	–	–	–	26%	34%	79.4%	56%	

- PSP vesting relates to all awards that were tested early on cessation of employment.
- Includes payment (as previously disclosed) for loss of annual bonus (£163,000) and the value of restricted stock (£755,000) granted to compensate him for loss of value forfeit on joining Genus.
- Includes the award under the Company Milestone element of the annual bonus.

Chief Executive Pay Compared to Genus Employees Remuneration Received (% Change from 2017 to 2018)

	Salary %	Benefits ³ %	Annual bonus %
Chief Executive	1.3%	(0.6%)	10.6% ¹
UK comparators ²	3.9%	0%	48%

- Includes the award made under the Company Milestone element of the annual bonus.
- A subset of the UK workforce comprising employees with a bonus structure based on Group performance. This is considered the most relevant comparator group for these purposes.
- Excludes pension.

Distribution Statement

	2017	2018	% change
Employee costs (£m)	£137.6m	£148.4m	7.8
Distributions to shareholders ¹	£13.5m	£14.9m	10.4

¹ Includes dividends and share buy-backs.

5. The Chairman and Non-Executive Directors' Fees

Fees payable to the Non-Executive Directors per annum are as follows:

Position	2017 fees	2018 fees	2019 fees
Chairman	£160,000	£160,000	£160,000
Audit and Remuneration Committee Chairs	£60,000	£60,000	£60,000
Adviser to R&D PMT	n/a	£65,000	£65,000
Base Non-Executive Director fee	£55,000	£55,000	£55,000

Fees were increased in 2016 (as explained in the Directors' Remuneration Report set out in the 2015 Annual Report and approved at the 2015 AGM). The Chairman's fee, which had not been reviewed since 2010, was increased to £160,000 and Non-Executive Director fees, which were last reviewed in 2012, increased to £55,000 which includes, for each of them, their fees for membership of the Board's Committees. The responsibilities of chairing the Audit and Remuneration Committees were also recognised with an additional fee of £5,000, giving the Chairs of these Committees a total fee of £60,000.

Fees will continue at this level for 2019.

Total Single Figure of Remuneration (Audited) for 2017 and 2018 are as follows:

		Fees £000s	Taxable expenses £000s	Benefits £000s	Total £000s
Non-Executive Directors					
Bob Lawson	2018	160	3	–	163
	2017	160	2	–	162
Nigel Turner	2018	60	2	–	62
	2017	60	1	–	61
Duncan Maskell	2018	65	2	–	67
	2017	55	2	–	57
Lykele van der Broek	2018	55	1	3	59
	2017	55	1	11	67
Lysanne Gray	2018	60	1	–	61
	2017	58	1	–	59
Lesley Knox ¹	2018	5	–	–	5
	2017	n/a	n/a	n/a	n/a
Total	2018	405	9	3	417
	2017	388	7	11	406

¹ Lesley Knox was appointed on 1 June 2018.

The Non-Executive Directors' taxable expenses are travel expenses related to their role and have been grossed up for tax where applicable, in line with HMRC rules.

DIRECTORS' REMUNERATION REPORT

SECTION D: ANNUAL REPORT ON REMUNERATION

5. The Chairman and Non-Executive Directors' Fees continued

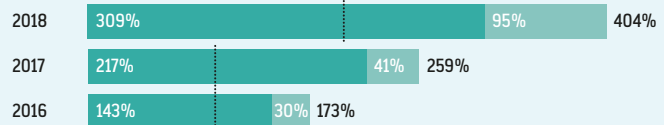
Spotlight: Increased Alignment of Executives to Genus Through Shareholding

The Remuneration Policy in 2016 increased the shareholding guideline for Executives from 100% of salary to 200% of salary. A significant part of the Core Bonus element of the annual bonus is delivered in shares, along with any awards under the Company Milestone Element. In addition, Executives are required to retain the post-tax shares from vesting PSP awards for a further two years.

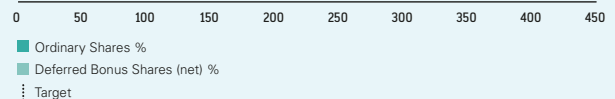
We have seen significant progress by both Executives in developing their shareholding in the business as highlighted in the adjacent chart.

Shareholding as percentage of salary

Karim Bitar



Stephen Wilson



SHAREHOLDING REQUIREMENT
TO 2016 =
100% OF SALARY

SHAREHOLDING REQUIREMENT
FROM 2017 =
200% OF SALARY

6. Details of the Directors' Shareholdings and Rights to Shares

Directors' Shareholdings (Audited)

At the year end, the Directors had the following interests in the Company's shares:

	At 30 June 2018 Number	% of salary held ¹	% of shareholding guideline ²	Unvested DSBP awards at 30 June 2018 Number	Unvested PSP awards held at 30 June 2018 Number	At 30 June 2017 Number
Bob Lawson	8,557	n/a	n/a	n/a	n/a	8,557
Karim Bitar	68,213	404%	200%	39,529	193,440	65,353
Stephen Wilson	39,528	346%	200%	22,918	114,696	16,214
Nigel Turner	15,000	n/a	n/a	n/a	n/a	15,000
Duncan Maskell	0	n/a	n/a	n/a	n/a	–
Lykele van der Broek	3,750	n/a	n/a	n/a	n/a	3,750
Lysanne Gray	0	n/a	n/a	n/a	n/a	–
Lesley Knox	2,000	n/a	n/a	n/a	n/a	–
Total	137,048			62,447	308,136	108,874

There were no changes in the Directors' interests between 30 June 2018 and the date of this report.

- Based on the combined number of beneficially held shares and the net of tax DSBP awards held and the average closing share price over the three months to 30 June 2018 of 2,523p.
- Executive Directors are expected to work towards achieve a shareholding of 200% of salary as set out in the Remuneration Policy agreed by shareholders in 2016. This was increased from 100% in 2016.

Company Share Price

The market price of the Company's shares on 30 June 2018 was 2,636p and the lowest and highest share prices during the financial year were 1,695p and 2,688p respectively.

Performance Share Awards Granted in 2018 (Audited)

The awards granted under the 2014 PSP were as follows:

Executive	Number of shares comprising award	Face/maximum value of awards at grant date (% salary) ¹	% of award vesting at threshold	Performance period
Karim Bitar	56,404	£1,112,851 (200%)	20	01.07.17–30.06.20
Stephen Wilson	33,443	£659,830 (175%)	20	01.07.17–30.06.20

¹ The closing average share price over the three days prior to the award being granted has been used to determine the maximum face value of the awards. This was 1,973p for Karim Bitar and Stephen Wilson (award granted on 13 September 2017).

The awards were granted as nil-cost share options and vesting will be subject to achieving a challenging sliding scale of adjusted earnings per share growth target and a strategic underpin, consistent with our Remuneration Policy. The adjusted earnings per share growth performance target for the above awards is:

Average annual growth in adjusted earnings per share ¹	Vesting (% award)
Less than 5% per annum	0%
5% per annum	20%
15% per annum	100%
Straight-line vesting between performance points	

¹ Growth in adjusted earnings per share over the three-year performance period will be calculated on a simple average annual growth rate after the cost of share-based payments and adjusted for gene editing costs in line with previous awards.

Deferred Bonus Awards Granted in 2018 (Audited)

The following DSBP awards were granted in relation to the 2017 annual bonus. The basis of the awards' calculation is described in more detail on page 71:

Executive	Number of shares comprising award	Face value of awards at grant date ¹
Karim Bitar	20,629	£407,010
Stephen Wilson	10,213	£201,502

These awards are not subject to any further performance conditions and will normally vest in full on 13 September 2020, subject to continued service.

¹ The closing average share price over the three days prior to the award being granted has been used to determine the maximum face value of the awards. This was 1,973p for Karim Bitar and Stephen Wilson (award granted on 13 September 2017).

DIRECTORS' REMUNERATION REPORT

SECTION D: ANNUAL REPORT ON REMUNERATION

6. Details of the Directors' Shareholdings and Rights to Shares continued

Summary of Scheme Interests (Audited)

At 30 June 2018, the Executive Directors had the following beneficial interests in share awards and share options:

Karim Bitar

Grant date	Award	Vesting period	Share price at grant	At 30 June 2017 Number	Granted in year Number	Lapsed in year Number	Exercised in year Number	At 30 June 2018 Number
21 October 2014	DSBP	21 October 2014 to 21 October 2017	1,111p	4,648	–	–	(4,648)	0
20 November 2014	PSP	20 November 2014 to 20 November 2017	1,221p	86,271	–	(17,772)	(68,499)	0
14 September 2015	DSBP	14 September 2015 to 14 September 2018	1,363p	11,927	–	–	–	11,927
14 September 2015	PSP	14 September 2015 to 14 September 2018	1,363p	78,850	–	–	–	78,850
14 September 2016	PSP	14 September 2016 to 14 September 2019	1,884p	58,186	–	–	–	58,186
14 September 2016	DSBP	14 September 2016 to 14 September 2019	1,884p	6,973	–	–	–	6,973
13 September 2017	PSP	13 September 2017 to 13 September 2020	1,973p	–	56,404	–	–	56,404
13 September 2017	DSBP	13 September 2017 to 13 September 2020	1,973p	–	20,629	–	–	20,629
Total				246,855	77,033	(17,772)	(73,147)	232,969

Stephen Wilson

Grant date	Award	Vesting period	Share price at grant	At 30 June 2017 Number	Granted in year Number	Lapsed in year Number	Exercised in year Number	At 30 June 2018 Number
21 October 2014	DSBP	21 October 2014 to 21 October 2017	1,111p	3,445	–	–	(3,445)	0
20 November 2014	PSP	20 November 2014 to 20 November 2017	1,221p	51,153	–	(10,538)	(40,615)	0
14 September 2015	DSBP	14 September 2015 to 14 September 2018	1,363p	7,980	–	–	–	7,980
14 September 2015	PSP	14 September 2015 to 14 September 2018	1,363p	46,753	–	–	–	46,753
14 September 2016	PSP	14 September 2016 to 14 September 2019	1,884p	34,500	–	–	–	34,500
14 September 2016	DSBP	14 September 2016 to 14 September 2019	1,884p	4,725	–	–	–	4,725
13 September 2017	PSP	13 September 2017 to 13 September 2020	1,973p	–	33,443	–	–	33,443
13 September 2017	DSBP	13 September 2017 to 13 September 2020	1,973p	–	10,213	–	–	10,213
Total				148,556	43,656	(10,538)	(44,060)	137,614

In relation to the share awards granted on 13 September 2017, the closing average share price over the three days prior to 13 September 2017 (the grant date for the PSP awards) of (1,973p) was used to determine the number of shares comprising individual awards.

The performance targets applying to the 13 September 2017 awards are as described above. An earnings per share range also applied to awards made in 2016 and 2015. No further performance conditions apply to the DSBP awards.

Dilution

The aggregate dilution of all relevant share incentives was 4.72% at 30 June 2018, which is less than the permissible 10% in ten years dilution limit.

7. Details of the Executive Directors' Contracts and Non-Executive Directors' Letters of Appointment

Director	Appointment date	Current contract date	Expiry date	Notice period (Months)
Executives				
Karim Bitar	24 May 2011	24 May 2011	n/a	12 (from Company) 6 (from Executive)
Stephen Wilson	12 December 2012	12 December 2012	n/a	12 (from Company) 6 (from Executive)
Non-Executives				
Bob Lawson	11 November 2010	11 November 2016	11 November 2019	1
Nigel Turner	17 January 2008	17 January 2017	16 January 2020	1
Duncan Maskell	1 April 2014	1 April 2017	1 April 2020	1
Lykele van der Broek	1 July 2014	1 July 2017	1 July 2020	1
Lysanne Gray	1 April 2016	1 April 2016	1 April 2019	1
Lesley Knox	1 June 2018	1 June 2018	1 June 2021	1

DIRECTORS' REMUNERATION REPORT

SECTION E: SUMMARY OF DIRECTORS' REMUNERATION POLICY

Our Directors' Remuneration Policy was approved by shareholders on 17 November 2016 with over 96% support from Shareholders. There are no proposed changes to the Policy this year and therefore there will be no resolution seeking shareholder approval at the forthcoming AGM. We will continue to review the effectiveness of our Policy during the year ahead of presenting an updated Policy for shareholder approval in 2019. We will continue to have the annual resolution seeking shareholder approval of how we have implemented the Remuneration Policy.

The table summarising the Remuneration Policy is shown below for information. Full details of the Remuneration Policy can be found in our 2016 Annual Report which is available from our website at www.genusplc.com.

Directors' Remuneration Policy Report

The key objectives of the Remuneration Policy are that:

- pay should be competitive, so we can attract and retain the best people;
- fixed pay (base salary, pension and benefits) should take account of appropriate external benchmarks (both in the UK where we are listed and globally) and pay for our other employees;
- short and long-term incentive pay should provide the opportunity to earn upper quartile total remuneration, subject to delivering our above-market long-term growth aspirations;
- we can recognise significant biotechnology and strategic Company Milestones;
- incentive pay should be directly linked to the Group's strategy, with targets relating to our key performance indicators (using non-financial 'input' measures and/or 'output' measures such as earnings per share) and should be stretching, in light of our strategic plan;
- incentive structures should be simple, reward long-term sustained growth and key strategic milestones, rather than volatile performance;
- the policy should be clearly aligned with shareholders' interests, take due account of current best practice and not encourage undue risk taking; and
- policy principles for Executive Directors should apply to GELT members with appropriate tiering through the wider workforce.

Base Salary

To provide competitive fixed remuneration that will attract and retain key employees and reflect their experience and position in the Group.

Operation

Reviewed annually as the norm, with increases from 2017 usually effective from 1 September.

Periodically benchmarked against relevant market comparators, reflecting the size and nature of the role, individual performance and experience, increases awarded to other employees, Group performance and broader economic conditions.

Maximum

Annual percentage increases are generally consistent with the range awarded across the Group and in line with the salary awards for the home country in which the Executive works.

Percentage increases in salary above this level may be made in certain circumstances, such as a change in responsibility or a significant increase in the role's scale or the Group's size and complexity.

Performance Conditions

A broad assessment of individual and Company performance is used as part of the salary review.

The salaries payable to the Executive Directors from 1 September 2018 are disclosed on page 74.

Benefits

To provide competitive benefits and to attract and retain high-calibre employees.

Operation

Benefits generally include a car allowance and insured benefits (e.g. life assurance and private medical insurance).

Where Executive Directors are recruited from overseas, or required to relocate on an international assignment, benefits more tailored to their geographical location may be provided and may include relocation costs and/or tax equalisation arrangements as necessary.

Where revised benefits are offered in a geographic location or across the Group, Executive Directors are likely to be eligible to receive those benefits on similar terms.

If the Company introduces an all-employee share plan, Executive Directors will be eligible to participate on the same terms as other employees.

Maximum

The car allowance is limited to £20,000 per annum.

The value of insured benefits will vary year on year, based on the cost of providing insured benefits, and is included in the total single figure table on page 71.

Performance Conditions

None.

Pension

To provide a competitive Company contribution that enables effective retirement planning.

Operation

Only basic salary is pensionable.

Pension is provided by way of contribution to a personal pension or as a salary supplement in lieu of pension provision.

Maximum

Pension contribution or salary supplements in lieu of pension are provided to a maximum of 25% of basic salary.

Performance Conditions

None.

DIRECTORS' REMUNERATION REPORT

SECTION E: SUMMARY OF DIRECTORS' REMUNERATION POLICY

Annual Bonus

The bonus is split into two parts:

A Core Bonus element incentivises against a combination of financial targets and personal objectives.

A Company Milestone element

incentivises achievement of significant Company Milestones. This element is included at the discretion of the Committee.

In combination, these elements support achievement of the Group's goals.

Operation

25% of the payments under the Core Bonus element are made in Company shares deferred for three years subject to continued service. The remaining award is payable in cash.

Payments under the Company Milestone element are made fully in Company shares deferred for three years subject to continued service.

Malus and clawback provisions may apply for a period of three years from the point of award, in the event of a material misstatement of the Group's financial results.

Share awards made under the DSBP (under either the Core Bonus element or Company Milestone element) will vest after three years, subject to continued service.

A dividend equivalent provision operates, enabling dividends to be paid (in cash or shares) on deferred shares that vest.

Maximum

Core Bonus opportunity: 125% of salary

The Committee has the discretion to award an additional variable award (up to 75% of salary for the Chief Executive, up to 50% of salary for other Executive Directors) to reward achievement of Company milestones under the Company Milestone element.

The Committee has the discretion to determine in which year the award is earned, and can choose to recognise achievement in a subsequent year. The maximum award in any year will be up to 75% for the Chief Executive and 50% for other Executive Directors.

Therefore the maximum under the annual bonus is 200% of salary for the Chief Executive and 175% for other Executive Directors.

Performance Conditions

Core Bonus awards are subject to achievement against a sliding scale of challenging financial targets and personal objectives, which the Committee sets each year to reflect the priorities for the year ahead.

The specific performance measures, targets and weightings are set every year to align with the Company's strategy.

Financial targets govern the majority of Core Bonus payments and are typically linked to the Group's key performance indicators (e.g. profit and cash generation), with a minority earned based on performance against personal objectives.

The Committee may include the Company Milestone element to incentivise and reward the achievement of pre-determined Company Milestones.

The Committee has the discretion to adjust the bonus outcome in light of overall underlying performance. Any adjustment made will be disclosed within the following Annual Report on Remuneration.

For financial performance targets under the Core Bonus element, bonus is earned on a graduated scale. The level of payment at threshold is set annually but will not exceed 25% of maximum. Maximum awards (100% payable) are for substantial outperformance against targets.

A summary of the performance targets for 2019 is included on page 75.

2014 PSP

The 2014 PSP incentivises Executives to achieve superior returns to shareholders over a three-year period, to retain key individuals and align their interests with shareholders.

Operation

Eligibility to receive awards is at the Committee's discretion each year.

Awards vest three years from grant, subject to continued employment and satisfaction of challenging three-year performance targets.

For awards granted from 2014, the post-tax number of vested shares must be held for at least a two-year period following vesting.

A dividend equivalent provision enables dividends to be paid (in cash or shares) on shares that vest.

Malus and clawback provisions may apply for a period of three years, in the event of a material misstatement of the Group's financial results.

Maximum

Maximum annual award of 200% of salary (300% of salary in exceptional circumstances, such as recruitment).

Performance Conditions

Awards vest based on three-year performance against a challenging range of targets, aligned with the delivery of the Company's long-term strategy.

Financial targets (including adjusted earnings per share growth) will determine the vesting of a majority of awards granted in any year.

Targets are typically structured as a challenging sliding scale, with no more than 20% of the maximum award vesting for achieving the threshold performance level through to full vesting for substantial outperformance of the threshold.

The awards will also be subject to an underpin that enables the Committee to scale back (but not scale up) vesting, if the Group's performance over the period is not considered to reflect the progress made against its strategic business targets.

A summary of the performance targets for 2019 is given on page 78.

The Committee will review performance conditions annually, specifically the range of earnings per share targets and the metrics and weightings applied to each element of the PSP. Any revisions to the metrics and/or weightings will only take place if it is necessary because of developments in the Company's strategy and, where these are material, following dialogue with the Company's major shareholders. Should the Committee believe that a major change to the current approach is appropriate (for example, replacing a primary performance metric with an alternative), this would only take place following a revised Directors' Remuneration Policy being tabled to shareholders.

Share Ownership Guidelines

To align Executives and shareholders.

Operation

Executives are expected to achieve a shareholding of 200% of salary, by retaining 50% of the net of post-tax number of vested shares under the Company's DSBP and PSP.

Maximum

n/a

Performance Conditions

n/a

DIRECTORS' REMUNERATION REPORT

SECTION E: SUMMARY OF DIRECTORS' REMUNERATION POLICY

Non-Executive Directors

To provide compensation that attracts high-calibre individuals and reflects their experience and knowledge.

Operation

The Committee determines the Chairman's fee.

The Board periodically reviews Non-Executive Directors' fees.

No Directors take part in meetings where their own remuneration is discussed.

Fees are based on the time commitments involved in each role and set with reference to the fees paid in other similarly sized UK listed companies.

Maximum

Any increase in Non-Executive Director fees may be above the level awarded to other employees, given that they may only be reviewed periodically and may need to reflect any changes to time commitments or responsibilities.

The periodic review may result in an increase beyond the fees currently payable.

Non-Executive Directors also receive reimbursement of reasonable expenses incurred in connection with Company business and may settle any tax incurred in relation to these.

The fees payable for 2018 are stated on page 79.

Performance Conditions

None.

Approved by the Board and signed on its behalf by:

Nigel Turner

Chair of the Remuneration Committee
5 September 2018

OTHER STATUTORY DISCLOSURES

Directors

The Directors and the dates of their respective appointments are listed on pages 44 and 45.

Equal Opportunities/Employees with Disabilities

Genus values diversity and aims to make best use of everyone's skills and abilities. We are therefore committed to equal opportunities at every stage of our employees' careers. Our policy on employees with disabilities is to fully and fairly consider people with disabilities for all vacancies. We interview and recruit people with disabilities and endeavour to retain employees if they become disabled while they work for us. Where possible, we will retrain employees who become disabled and adjust their working environment, so they can maximise their potential.

Political Contributions

The Group does not make political contributions.

Dividend

The Board is recommending to shareholders a final dividend of 17.9 pence per ordinary share, resulting in a total dividend for the year of 26.0 pence per ordinary share, an increase of 10% for the year. It is proposed that the final dividend will be paid on 30 November 2018, to shareholders on the register at the close of business on 16 November 2018.

Share Capital

Note 29 gives details of the Company's issued share capital and any movements in the issued share capital during the year. The Directors may only issue shares to the extent authorised by the shareholders in a general meeting. The current power to allot shares was granted by shareholder resolution at the 2017 AGM and a new authority is being sought at the 2018 AGM within the limits set out in the notice of meeting, that is up to a nominal value of £4,102,831.12 (representing two-thirds of the Company's current issued share capital).

The Company has one class of ordinary share, with the rights set out in the Articles of Association. All issued shares are fully paid and each share has the right to one vote at the Company's general meetings. There are no specific restrictions either on the size of a holding or on the transfer of shares, which are both governed by our Articles of Association and prevailing legislation. No person has any special rights of control over the Company's share capital.

Details of the Company's employee share schemes are set out in note 51. In connection with these schemes, the Genus plc Employee Benefit Trust holds shares in the Company from time to time and abstains from voting in respect of any such shares.

For additional information on capital risk management, including financial instruments, see note 24.

Authority to Acquire the Company's Own Shares

The Directors may only buy back shares to the extent authorised by the shareholders in general meeting. The current power to buy back shares was granted by shareholder resolution at the 2017 AGM and a new authority is being sought at the 2018 AGM within the limits set out in the notice of meeting, that is up to a nominal value of £615,425 (representing 10% of the Company's current issued share capital). No shares were bought back by the Company under the authority granted at the 2017 AGM, from the date of that AGM up to the date of this report.

Substantial Shareholdings

As at 3 September 2018, we were aware of the following material interests in the Company's ordinary shares:

As at 3 September 2018	Shares held	%
Lansdowne Partners	5,352,933	8.70
Baillie Gifford & Co Limited	4,405,616	7.16
Columbia Threadneedle Investments	3,324,465	5.40
NFU Mutual Investment Mgrs	2,020,733	3.28
M&G Investment Mgt	1,928,567	3.13
Legal & General Investment Mgt	1,883,139	3.06

There have been no material changes in shareholding since 30 June 2018.

No other person has notified an interest in the Company's ordinary shares, which is required to be disclosed to us.

Provision of Information to the Company's Auditor

Each of the Directors at the date of approval of this Annual Report confirms that:

- so far as the Director is aware, there is no relevant audit information of which the Company's auditor is unaware; and
- the Director has taken all the steps that he or she ought to have taken as a Director in order to make himself or herself aware of any relevant audit information and to establish that the Company's auditor is aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of section 418 Companies Act 2006.

Appointment of Auditor

Deloitte LLP has expressed its willingness to continue in office as auditor and a resolution to reappoint them will be proposed at the forthcoming AGM.

Directors' Indemnities

The Company has made qualifying third-party indemnity provisions for the benefit of its Directors, which were made during the year and remained in force at the date of this report.

Requirements of the Listing Rules

Details of the Company's long-term incentive schemes can be found in the Directors' Remuneration Report on pages 65 to 88.

Approved by the Board and signed on its behalf by:

Dan Hartley

Group General Counsel and Company Secretary
5 September 2018

DIRECTORS' RESPONSIBILITIES

The Directors are responsible for preparing the Annual Report and the Financial Statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare Financial Statements for each financial year. Under that law, the Directors are required to prepare the Group Financial Statements in accordance with International Financial Reporting Standards ('IFRSs') as adopted by the European Union and Article 4 of the IAS Regulation and have chosen to prepare the Parent Company Financial Statements in accordance with Financial Reporting Standard 101 'Reduced Disclosure Framework'. Under company law, the Directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Company and of the profit or loss of the Company for that period.

In preparing the Parent Company Financial Statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- make judgements and accounting estimates that are reasonable and prudent;
- state whether Financial Reporting Standard 101 'Reduced Disclosure Framework' has been followed, subject to any material departures disclosed and explained in the Financial Statements; and
- prepare the Financial Statements on the going concern basis, unless it is inappropriate to presume that the Company will continue in business.

In preparing the Group Financial Statements, International Accounting Standard 1 requires that Directors:

- properly select and apply accounting policies;
- present information, including accounting policies, in a manner that provides relevant, reliable, comparable and understandable information;
- provide additional disclosures when compliance with the specific requirements in IFRSs are insufficient to enable users to understand the impact of particular transactions, other events and conditions on the entity's financial position and financial performance; and
- make an assessment of the Company's ability to continue as a going concern.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the Financial Statements comply with the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Legislation in the UK governing the preparation and dissemination of Financial Statements may differ from legislation in other jurisdictions.

Directors' Responsibility Statement

We confirm that to the best of our knowledge:

- the Financial Statements, prepared in accordance with the relevant financial reporting framework, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole;
- the Strategic Report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face; and
- the Annual Report and Financial Statements, taken as a whole, are fair, balanced and understandable, and provide the information necessary for shareholders to assess the Company's position, performance, business model and strategy.

Approved by the Board and signed on its behalf by:

Karim Bitar
Chief Executive
5 September 2018

Stephen Wilson
Group Finance Director
5 September 2018

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF GENUS PLC

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

Opinion

In our opinion:

- the financial statements of Genus plc (the 'Parent Company') and its subsidiaries (the 'Group') give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 30 June 2018 and of the Group's profit for the year then ended;
- the Group financial statements have been properly prepared in accordance with International Financial Reporting Standards ('IFRSs') as adopted by the European Union;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice, including Financial Reporting Standard 101 'Reduced Disclosure Framework'; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006 and, as regards the Group financial statements, Article 4 of the IAS Regulation.

We have audited the financial statements which comprise:

- the Group Income Statement;
- the Group Statement of Comprehensive Income;
- the Group and Parent Company Statements of Changes in Equity;
- the Group and Parent Company Balance Sheets;
- the Group Statement of cash flows; and
- the related notes 1 to 55.

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and IFRSs as adopted by the European Union. The financial reporting framework that has been applied in the preparation of the Parent Company financial statements is applicable law and United Kingdom Accounting Standards, including FRS 101 'Reduced Disclosure Framework' (United Kingdom Generally Accepted Accounting Practice).

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the financial statements section of our report.

We are independent of the Group and the Parent Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the Financial Reporting Council's (the 'FRC's') Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We confirm that the non-audit services prohibited by the FRC's Ethical Standard were not provided to the Group or the Parent Company.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Summary of our audit approach

Key audit matters	The key audit matters that we identified in the current year were: <ul style="list-style-type: none"> • Key estimates and assumptions used in determining the fair value of biological assets under IAS 41 'Agriculture' • Consideration of the key assumptions used in the impairment model for the ABS cash generating unit
Materiality	The materiality that we used for the Group financial statements was £2,300,000 (2017: £2,200,000) which is 5.4% (2017: 5.0%) of pre-tax profit before exceptional items and changes in fair value in biological assets.
Scoping	Our audit scope covered 15 components (2017: 17). Of these, seven were subject to a full audit (2017: eight), whilst the other eight (2017: nine) were subject to specified audit procedures. The coverage of key account balances was 75% of revenue (2017: 82%), 75% pre-tax profit before exceptional items and changes in fair value in biological assets (2017: 80%) and 84% of net assets (2017: 92%).
Significant changes in our approach	Given the improved position on the Milk Pension Fund defined benefit pension scheme and the continued contributions of other employers of the scheme, we no longer include this as a key audit matter.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF GENUS PLC

Conclusions relating to going concern, principal risks and viability statement

Going concern

We have reviewed the Directors' statement in note 2 to the financial statements about whether they considered it appropriate to adopt the going concern basis of accounting in preparing them and their identification of any material uncertainties to the Group's and Company's ability to continue to do so over a period of at least 12 months from the date of approval of the financial statements.

We are required to state whether we have anything material to add, or draw attention to, in relation to that statement required by Listing Rule 9.8.6R(3) and report if the statement is materially inconsistent with our knowledge obtained in the audit.

Principal risks and viability statement

Based solely on reading the Directors' statements and considering whether they were consistent with the knowledge we obtained in the course of the audit, including the knowledge obtained in the evaluation of the Directors' assessment of the Group's and the Company's ability to continue as a going concern, we are required to state whether we have anything material to add or draw attention to in relation to:

- the disclosures on pages 12 and 13 that describe the principal risks and explain how they are being managed or mitigated;
- the Directors' confirmation on page 14 that they have carried out a robust assessment of the principal risks facing the Group, including those that would threaten its business model, future performance, solvency or liquidity; or
- the Directors' explanation on page 14 as to how they have assessed the prospects of the Group, over what period they have done so and why they consider that period to be appropriate, and their statement as to whether they have a reasonable expectation that the Group will be able to continue in operation and meet its liabilities as they fall due over the period of their assessment, including any related disclosures drawing attention to any necessary qualifications or assumptions.

We are also required to report whether the Directors' statement relating to the prospects of the Group required by Listing Rule 9.8.6R(3) is materially inconsistent with our knowledge obtained in the audit.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit and directing the efforts of the engagement team.

These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key estimates and assumptions used in determining the fair value of biological assets under IAS 41 'Agriculture'

Key audit matter description The Group calculates the fair value of biological assets through the use of discounted cash flow models and recent transaction prices. As at 30 June 2018, the total fair value of biological assets is £343m (2017: £353m).

Certain assumptions contain high levels of estimation and therefore represent potential areas where management could fraudulently manipulate the financial statements. Our key audit matter is focused specifically on the following key assumptions for each species, being the most sensitive assumptions applied in the valuation models. For bovine asset valuations: the future growth rates of semen volumes; the forecast average age of bulls producing saleable semen; expected unit prices; and the discount rates applied.

For porcine asset valuations: the expected useful breeding life of pigs; the number of future generations attributable to the current herds; and the discount rate applied.

Details of the biological assets are disclosed in note 15 to the financial statements. The Audit Committee has included their assessment of this key audit matter on page 63 and it is included in the key accounting estimates and judgements in note 4 to the financial statements.

We confirm that we have nothing material to report, add or draw attention to in respect of these matters.

We confirm that we have nothing material to report, add or draw attention to in respect of these matters.

Key estimates and assumptions used in determining the fair value of biological assets under IAS 41 'Agriculture' continued

How the scope of our audit responded to the key audit matter

Our response to this key audit matter considers the separate elements of the fair value calculations, specifically the basis for management's key estimates and assumptions.

For the bovine asset valuations, our audit work comprised of evaluating the design and implementation of controls relevant to the valuation model and substantive procedures. Our substantive procedures included challenging management's assumptions by performing sensitivities, assessing historical forecasting accuracy, comparing to third-party data and reviewing the model logic and accounting treatment given the change in the year.

For the porcine asset valuations our audit work included consideration of the appropriateness of management's assessment of the number of future generations from which output is attributable to the current herd and expected useful lives. We tested the expected percentages of animals to be sold, retained and slaughtered as well as recent selling prices by reference to historical transactional data. For all other key assumptions in each model we challenged the significant estimates with reference to third-party or historical transactional data as appropriate. We also performed sensitivity analysis on the key assumptions.

For both species' valuation models, we used internal valuation experts in our testing of the discount rates applied to the cash flows.

Key observations

From the work performed, we are satisfied that the key assumptions applied in respect of the fair value determination of biological assets are appropriate.

Consideration of the key assumptions used in the impairment model for the ABS cash generating unit

Key audit matter description

The Group has £31.2m of goodwill (2017: £32.4m) on its balance sheet and total assets of £160.6m (2017: £132.8m) in relation to the ABS CGU.

On an annual basis, management is required to perform an impairment assessment for goodwill, and to assess for indicators of impairment in respect of other intangible and tangible assets.

Assessment of the carrying value of the CGU's assets is a key audit matter due to the quantum of the balance and the judgements and estimates involved in setting the key assumptions and assertions used by management to support their assessment of the carrying value.

Our key audit matter in the current period has been focused specifically on the assets associated with the ABS business due to the more limited headroom associated with this cash generating unit. The key assumptions in testing the carrying value of the ABS CGU for impairment include the short-term and long-term growth rates and the discount rate.

The associated disclosure is included in note 14 to the financial statements. The Audit Committee has included their assessment of this key audit matter on page 63 and it is included in the key accounting estimates and judgements in note 4 to the financial statements.

How the scope of our audit responded to the key audit matter

We challenged the assumptions used by management in their annual impairment assessment, by comparing the projected growth rates and forecast cash flows against historical trends achieved in the business. We analysed historical budgeting accuracy to assess the reliability of the growth rates used in management's forecasts. Where available, we reviewed third-party market data to challenge the assumptions used, including benchmarking the long-term growth rate against the applicable industry and regional long-term growth rates which Genus operate in.

We evaluated management's assessment of the sensitivity of the Group's key impairment assumptions, as identified above, to reasonably possible changes and considered the disclosures provided by the Group in relation to its impairment review within note 14 to the financial statements.

We used valuation specialists within the audit team to challenge the discount rates applied to these cash flows by reference to market data, including the risk premium applied to the ABS CGU.

Key observations

We are satisfied with management's conclusions that the ABS CGU is not impaired and a reasonably possible change in any one of the key assumptions does not give rise to an impairment.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF GENUS PLC

Our application of materiality

We define materiality as the magnitude of misstatement in the financial statements that makes it probable that the economic decisions of a reasonably knowledgeable person would be changed or influenced. We use materiality both in planning the scope of our audit work and in evaluating the results of our work.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Group financial statements	Parent Company financial statements
Materiality	£2,300,000 (2017: £2,200,000)	£1,820,000 (2017: £1,100,000)
Basis for determining materiality	5.4% of pre-tax profit before exceptional items and changes in fair value of biological assets (2017: 5.0%).	1% of net assets, which is lower than our benchmark of 80% of Group materiality (2017: 1% of net assets, which was capped at our benchmark of 50% of Group materiality).
Rationale for the benchmark applied	We have used a profit-based measure given the Group is listed and, therefore, shareholders focus on profitability. The profit is adjusted for the exceptional items and changes in fair value of biological assets, to avoid distortion that could otherwise arise due to non-recurring items and fair value movements.	Genus plc (Company only) does not generate any external income and, therefore, we deem that net assets is a more appropriate basis for determining materiality.



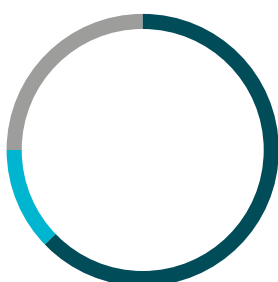
We agreed with the Audit Committee that we would report to the Committee all audit differences in excess of £115,000 (2017: £100,000), as well as differences below that threshold that, in our view, warranted reporting on qualitative grounds. We also report to the Audit Committee on disclosure matters that we identified when assessing the overall presentation of the financial statements.

An overview of the scope of our audit

Our group audit was scoped by obtaining an understanding of the Group and its environment, including Group-wide controls, and assessing the risks of material misstatement at the Group level. Based on that assessment, we focused our Group audit scope primarily on the audit work at 15 components (2017: 17). Of these, seven were subject to a full audit (2017: eight), whilst the remaining eight (2017: nine) were subject to specified audit procedures, where the extent of our testing was based on our assessment of the risks of material misstatement and of the materiality of the Group's operations at those locations.

These 15 components represent the principal business units and account for 75% (2017: 82%) of the Group's revenue, 75% (2017: 80%) of the Group's pre-tax profit before exceptional items and changes in fair value of biological assets, and 84% (2017: 92%) of the Group's net assets.

REVENUE



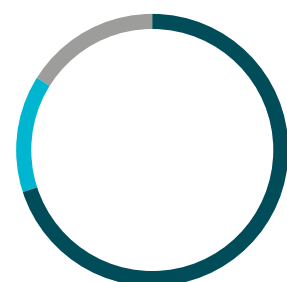
- 63% Full audit scope
- 12% Specified audit procedures
- 25% Revenue at Group level

PROFIT BEFORE TAX



- 52% Full audit scope
- 23% Specified audit procedures
- 25% Revenue at Group level

NET ASSETS



- 70% Full audit scope
- 14% Specified audit procedures
- 16% Revenue at Group level

At the parent entity level we also tested the consolidation process and carried out analytical procedures to confirm our conclusion that there were no significant risks of material misstatement of the aggregated financial information of the remaining components not subject to audit or audit of specified account balances.

The group audit team continued to follow a programme of planned visits. The lead audit partner visited the USA during the current year, and in the previous year visited the USA, Mexico and Brazil. In years when we do not visit a significant component, we include the component audit team in our team briefing, discuss their risk assessment, and review documentation of the findings from their work. As well as component reporting, in the current year we have reviewed a selection of audit papers for all in scope components.

Other information

The Directors are responsible for the other information. The other information comprises the information included in the Annual Report, other than the financial statements and our auditor's report thereon.

We have nothing to report in respect of these matters.

Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether there is a material misstatement in the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

In this context, matters that we are specifically required to report to you as uncorrected material misstatements of the other information include where we conclude that:

- *Fair, balanced and understandable* – the statement given by the Directors that they consider the Annual Report and financial statements taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy, is materially inconsistent with our knowledge obtained in the audit; or
- *Audit Committee reporting* – the section describing the work of the Audit Committee does not appropriately address matters communicated by us to the Audit Committee; or
- *Directors' statement of compliance with the UK Corporate Governance Code* – the parts of the Directors' statement required under the Listing Rules relating to the Company's compliance with the UK Corporate Governance Code containing provisions specified for review by the auditor in accordance with Listing Rule 9.8.10R(2) do not properly disclose a departure from a relevant provision of the UK Corporate Governance Code.

Responsibilities of Directors

As explained more fully in the Directors' responsibilities statement, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the Directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Directors are responsible for assessing the group's and the Parent Company's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless the Directors either intend to liquidate the Group or the Parent Company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

INDEPENDENT AUDITOR'S REPORT TO THE MEMBERS OF GENUS PLC

Report on other legal and regulatory requirements

Opinions on other matters prescribed by the Companies Act 2006

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the Strategic Report and the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the Strategic Report and the Directors' Report have been prepared in accordance with applicable legal requirements.

In the light of the knowledge and understanding of the Group and of the Parent Company and their environment obtained in the course of the audit, we have not identified any material misstatements in the Strategic Report or the Directors' Report.

Matters on which we are required to report by exception

Adequacy of explanations received and accounting records

Under the Companies Act 2006 we are required to report to you if, in our opinion:

- we have not received all the information and explanations we require for our audit; or
- adequate accounting records have not been kept by the Parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- the Parent Company financial statements are not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

Directors' remuneration

Under the Companies Act 2006, we are also required to report if in our opinion certain disclosures of Directors' remuneration have not been made or the part of the Directors' Remuneration Report to be audited is not in agreement with the accounting records and returns.

We have nothing to report in respect of these matters.

Other matters

Auditor tenure

Following the recommendation of the audit committee, we were appointed by the Board of Directors on 8 June 2006 to audit the financial statements for the year ending 30 June 2006 and subsequent financial periods. The period of total uninterrupted engagement including previous renewals and reappointments of the firm is 13 years, covering the years ending 30 June 2006 to 30 June 2018.

Consistency of the audit report with the additional report to the Audit Committee

Our audit opinion is consistent with the additional report to the Audit Committee we are required to provide in accordance with ISAs (UK).

Use of our report

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Andrew Bond, FCA (Senior statutory auditor)

For and on behalf of Deloitte LLP

Statutory Auditor

Reading, United Kingdom

5 September 2018

GROUP INCOME STATEMENT

FOR THE YEAR ENDED 30 JUNE 2018

	Note	2018 £m	2017 £m
Revenue	5, 6	470.3	459.1
Adjusted operating profit	5	57.7	55.1
Adjusting items:			
– Net IAS 41 valuation movement on biological assets	15	(28.7)	(1.1)
– Amortisation of acquired intangible assets	14	(9.5)	(8.7)
– Share-based payment expense	28	(5.4)	(4.6)
		(43.6)	(14.4)
– Exceptional items:	7		
– Litigation		(5.0)	(5.3)
– Acquisition and integration		(1.2)	(0.6)
– Other (including restructuring)		0.3	(2.3)
– Pension related		–	5.7
Total exceptional items		(5.9)	(2.5)
Total adjusting items		(49.5)	(16.9)
Operating profit	8	8.2	38.2
Share of post-tax profit of joint ventures and associates retained	17	4.2	6.2
Finance costs	10	(4.8)	(4.5)
Finance income	10	0.2	0.8
Profit before tax		7.8	40.7
Taxation	11	33.8	(6.4)
Profit for the year from continuing operations		41.6	34.3
Attributable to:			
Owners of the Company		42.7	32.8
Non-controlling interest		(1.1)	1.5
		41.6	34.3
Earnings per share from continuing operations	12		
Basic earnings per share		69.7p	53.8p
Diluted earnings per share		68.7p	53.0p
Alternative measure of performance			
Adjusted operating profit from continuing operations		57.7	55.1
Adjusted operating profit attributable to non-controlling interest		(0.8)	(2.1)
Pre-tax share of profits from joint ventures and associates excluding net IAS 41 valuation movement		6.2	7.1
Adjusted operating profit including joint ventures and associates		63.1	60.1
Net finance costs	10	(4.6)	(3.7)
Adjusted profit before tax from continuing operations		58.5	56.4
Adjusted earnings per share from continuing operations	12		
Basic adjusted earnings per share		75.9p	69.4p
Diluted adjusted earnings per share		74.9p	68.4p

GROUP STATEMENT OF COMPREHENSIVE INCOME

FOR THE YEAR ENDED 30 JUNE 2018

	Note	2018 £m	2018 £m	2017 £m	2017 £m
Profit for the year			41.6		34.3
Items that may be reclassified subsequently to profit or loss					
Foreign exchange translation differences		(22.4)		7.7	
Fair value movement on net investment hedges		1.3		(2.7)	
Fair value movement on cash flow hedges		1.1		2.1	
Tax relating to components of other comprehensive income	11	2.2		(4.6)	
Items that may not be reclassified subsequently to profit or loss					
Actuarial gain on retirement benefit obligations	27	43.4	(17.8)	1.2	2.5
Movement on pension asset recognition restriction	27	(2.5)		0.3	
Recognition of additional pension liability	27	(39.4)		(4.3)	
Tax relating to components of other comprehensive income	11	(0.3)		0.4	
			1.2		(2.4)
Other comprehensive (expense)/income for the year			(16.6)		0.1
Total comprehensive income for the year			25.0		34.4
Attributable to:					
Owners of the Company			26.1		33.8
Non-controlling interest			(1.1)		0.6
			25.0		34.4

GROUP STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 30 JUNE 2018

	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 2016		6.1	112.3	(0.1)	37.5	(0.6)	219.3	374.5	(6.4)	368.1
Foreign exchange translation differences, net of tax		–	–	–	3.9	–	–	3.9	(0.9)	3.0
Fair value movement on net investment hedges, net of tax		–	–	–	(2.2)	–	–	(2.2)	–	(2.2)
Fair value movement on cash flow hedges, net of tax		–	–	–	–	1.7	–	1.7	–	1.7
Actuarial gain on retirement benefit obligations, net of tax		–	–	–	–	–	1.0	1.0	–	1.0
Movement on pension asset recognition restriction, net of tax		–	–	–	–	–	0.3	0.3	–	0.3
Recognition of additional pension liability, net of tax		–	–	–	–	–	(3.7)	(3.7)	–	(3.7)
Other comprehensive (expense)/ income for the year		–	–	–	1.7	1.7	(2.4)	1.0	(0.9)	0.1
Profit for the year		–	–	–	–	–	32.8	32.8	1.5	34.3
Total comprehensive income for the year		–	–	–	1.7	1.7	30.4	33.8	0.6	34.4
Recognition of share-based payments, net of tax		–	–	–	–	–	4.0	4.0	–	4.0
Adjustment arising from change in non-controlling interest and written put option		–	–	–	–	–	–	–	8.6	8.6
Dividends	13	–	–	–	–	–	(13.5)	(13.5)	–	(13.5)
Issue of ordinary shares		–	0.5	–	–	–	–	0.5	–	0.5
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/(loss) for the year		–	–	–	–	–	42.7	42.7	(1.1)	41.6
Total comprehensive (expense)/ 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	13	–	–	–	–	–	(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

GROUP BALANCE SHEET

AS AT 30 JUNE 2018

	Note	2018 £m	2017 £m
Assets			
Goodwill	14	102.0	104.7
Other intangible assets	14	78.7	88.3
Biological assets	15	305.8	309.3
Property, plant and equipment	16	76.9	67.5
Interests in joint ventures and associates	17	19.9	22.7
Other investments	18	5.9	5.5
Derivative financial asset	24	0.3	0.1
Deferred tax assets	11	4.3	3.8
Total non-current assets		593.8	601.9
Inventories	19	34.2	33.1
Biological assets	15	37.0	43.8
Trade and other receivables	20	91.0	88.8
Cash and cash equivalents	21	29.1	26.5
Income tax receivable		1.4	1.9
Derivative financial asset	24	2.5	1.3
Asset held for sale		0.2	0.3
Total current assets		195.4	195.7
Total assets		789.2	797.6
Liabilities			
Trade and other payables	22	(83.7)	(76.4)
Interest-bearing loans and borrowings	25	(13.4)	(7.7)
Provisions	23	(2.8)	(2.7)
Deferred consideration	36	(19.3)	–
Obligations under finance leases	26	(1.4)	(1.4)
Current tax liabilities		(4.4)	(5.2)
Derivative financial liabilities	24	(0.3)	(0.6)
Total current liabilities		(125.3)	(94.0)
Interest-bearing loans and borrowings	25	(120.7)	(127.2)
Retirement benefit obligations	27	(33.9)	(40.9)
Provisions	23	(4.5)	(3.7)
Deferred consideration	36	(4.2)	–
Non-current income tax liability		(0.9)	–
Deferred tax liabilities	11	(74.8)	(124.2)
Derivative financial liabilities	24	(3.7)	(3.7)
Obligations under finance leases	26	(2.1)	(1.8)
Total non-current liabilities		(244.8)	(301.5)
Total liabilities		(370.1)	(395.5)
Net assets		419.1	402.1

	Note	2018 £m	2017 £m
Equity			
Called up share capital	29	6.2	6.1
Share premium account		112.8	112.8
Own shares	29	(0.1)	(0.1)
Translation reserve	29	20.5	39.2
Hedging reserve	29	2.0	1.1
Retained earnings		275.2	240.2
Equity attributable to owners of the Company		416.6	399.3
Non-controlling interest		5.7	6.1
Put option over non-controlling interest	24	(3.2)	(3.3)
Total non-controlling interest		2.5	2.8
Total equity		419.1	402.1

The Financial Statements were approved and authorised for issue by the Board of Directors on 5 September 2018.

Signed on behalf of the Board of Directors

Karim Bitar
Chief Executive

Stephen Wilson
Group Finance Director

GROUP STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED 30 JUNE 2018

	Note	2018 £m	2017 £m
Net cash flow from operating activities	30	43.2	34.6
Cash flows from investing activities			
Dividends received from joint ventures and associates		2.8	3.8
Joint venture loan repayment		–	3.0
Acquisition of subsidiaries, net of cash acquired	36	–	(17.5)
Increase in investment in subsidiaries	36	–	(12.0)
Acquisition of investment	18	–	(0.3)
Acquisition of investment in joint venture	17	–	(0.2)
Payment of deferred consideration		(1.8)	–
Disposal of joint venture		–	1.5
Purchase of property, plant and equipment		(17.8)	(13.4)
Purchase of intangible assets	14	(4.7)	(5.5)
Proceeds from sale of property, plant and equipment		0.4	1.4
Proceeds from sale of assets held for sale		0.3	–
Net cash outflow from investing activities		(20.8)	(39.2)
Cash flows from financing activities			
Drawdown of borrowings		64.4	68.1
Repayment of borrowings		(66.5)	(55.7)
Payment of finance lease liabilities		(2.2)	(2.0)
Equity dividends paid		(14.9)	(13.5)
Dividend to non-controlling interest		–	(0.1)
Issue of ordinary shares		0.1	0.5
Debt issue costs		–	(0.4)
Net cash outflow from financing activities		(19.1)	(3.1)
Net increase/(decrease) in cash and cash equivalents		3.3	(7.7)
Cash and cash equivalents at start of the year		26.5	34.0
Net increase/(decrease) in cash and cash equivalents		3.3	(7.7)
Effect of exchange rate fluctuations on cash and cash equivalents		(0.7)	0.2
Total cash and cash equivalents at 30 June	21	29.1	26.5

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

1. Reporting entity

Genus plc (the 'Company') is a public company limited by shares and incorporated in the United Kingdom under the Companies Act 2006. Its registered office is Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ. The Group Financial Statements for the year ended 30 June 2018 comprise the Company and its subsidiaries (together referred to as the 'Group'). We have used the equity method to account for the Group's interests in joint ventures and associates. Our business model on pages 6 and 7 explains the Group's operations and principal activities.

2. Basis of preparation

We have prepared the Group Financial Statements in accordance with International Financial Reporting Standards ('IFRSs') as adopted by the European Union and therefore comply with Article 4 of the IAS Regulation.

Unless otherwise stated, we have consistently applied the significant accounting policies set out below to all periods presented in these Group Financial Statements.

The going concern statement has been included in the Strategic Report on page 14 and forms part of these statements.

In note 5, we have reclassified the comparative period to reflect changes between current and non-current assets in our porcine biological assets. In note 15, we have reclassified the comparative period to reflect a change in the classification in our porcine biological assets between current and non-current assets.

Functional and presentation currency

We present the Group Financial Statements in Sterling, which is the Company's functional and presentational currency. All financial information presented in Sterling has been rounded to the nearest £0.1m.

Use of estimates

Preparing financial statements requires management to make judgements, estimates and assumptions that affect our application of accounting policies and our reported assets, liabilities, income and expenses. Our actual results may differ from these estimates. We review our estimates and underlying assumptions on an ongoing basis, and recognise revisions to accounting estimates in the period in which we revise the estimate and in any future periods affected.

Note 4 provides information about significant areas of estimation uncertainty and the critical judgements we made in applying accounting policies that have the most effect on the amounts we recognised in the financial statements.

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.

The Group believes that these APMs, which are not considered to be a substitute for or superior to IFRS measures, 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 some 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 periodic exchange rates used in the previous financial year. This measure eliminates the effects of exchange rate fluctuations on 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 are considered 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 2018:

- net IAS 41 valuation movements on biological assets – 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 7 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.

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

3. Significant accounting policies applied in the current reporting period that relate to the Financial Statements as a whole

This section sets out our significant accounting policies that relate to the Financial Statements as a whole. Where an accounting policy is generally applicable to a specific note to the Financial Statements, the policy has been described in that note. We have also detailed below the new accounting pronouncements that we will adopt in future years and our current view of the impact they will have on our financial reporting.

Accounting convention

We prepare the Group Financial Statements under the historical cost convention, except for our biological assets, share-based payment expense, pension liabilities and derivative financial instruments. In accordance with IFRS, we measure: biological assets at fair value less point-of-sale costs, which represent distribution costs and selling expenses, share-based payment expense, pension liabilities, and certain financial instruments at fair value.

Basis of consolidation

Subsidiaries are entities the Group controls. We have control of an entity when we are exposed, or have the rights, to variable returns from the entity and have the ability to affect the returns through power over the entity. In assessing control, we take into account potential voting rights that we can currently exercise or convert. We fully consolidate the results of subsidiaries we acquire from the date that control transfers to the Group. We cease consolidating the results of subsidiaries that we cease to control from the date that control passes.

In preparing the Group Financial Statements, we eliminate intra-Group balances and any unrealised income and expenses arising from intra-Group transactions. Unrealised gains arising from transactions with equity accounted investees are eliminated against the investment, to the extent of our interest in the investee. We eliminate unrealised losses in the same way as unrealised gains, but only to the extent that there is no evidence of impairment.

Foreign currencies

We record foreign currency transactions in the relevant Group entity's functional currency, at the exchange rate on the transaction date. At each balance sheet date, we retranslate monetary assets and liabilities denominated in foreign currencies at the exchange rate on the balance sheet date. We recognise the foreign exchange differences arising on retranslation in the Group Income Statement.

When non-monetary assets and liabilities are measured at historical cost in a foreign currency, we translate them at the exchange rate at the transaction date. When non-monetary assets and liabilities are stated at fair value in a foreign currency, we translate them at the prevailing exchange rate on the date we determined the fair value.

The assets and liabilities of foreign operations, including goodwill arising on consolidation, are translated into Sterling at the prevailing exchange rates at the balance sheet date. We translate these operations' revenues and expenses using an average rate for the period.

When exchange differences arise from translating foreign operations into Sterling, or from the fair value movement of related effective hedges, we take them to the foreign currency translation reserve. When we dispose of a foreign operation, we release these differences to the income statement. Exchange movements on inter-Company loans designated as long-term funding are taken to the foreign currency translation reserve, together with any related taxation.

The principal exchange rates were as follows:

	Average			Closing		
	2018	2017	2016	2018	2017	2016
US Dollar/£	1.35	1.27	1.47	1.32	1.30	1.34
Euro/£	1.13	1.16	1.33	1.13	1.14	1.20
Brazilian Real/£	4.51	4.11	5.47	5.12	4.30	4.28
Mexican Peso/£	25.37	24.61	25.38	26.30	23.51	24.66

Revenue

Revenue is the value of sales and royalties receivable from customers, net of trade discounts and value added tax.

The principal components of the Group's revenue and their respective accounting treatments are:

- Revenue from the sale of bovine and porcine semen, porcine breeding animals, embryos and ancillary products, which we recognise when risks and rewards transfer to the customer or distributor. This is either when we ship to customers or on delivery, depending on the terms of sale.
- Royalties, which we recognise when receivable. We receive royalty payments from certain porcine customers based on key performance variables, such as the number of pigs born per litter, the number of litters born per sow and the average slaughter weight of the animals born. This amount is confirmed directly to Genus by the customer.

3. Significant accounting policies applied in the current reporting period that relate to the Financial Statements as a whole continued

- Revenue from consulting, which represent the amounts we charged for services we provided during the year, including recoverable expenses but excluding value added tax. We recognise services provided but not yet billed as revenue, based on a fair value assessment of the work we have delivered and our contractual right to receive payment. Where unbilled revenue is contingent on a future event, we do not recognise any revenue until the event occurs.
- Revenue from a contract to provide services is recognised by reference to the stage of completion of the contract. The stage of completion of the contract is determined based on the fair value of services provided to date.
- Revenue from the slaughter of porcine animals, which we recognise when the risks and rewards transfer to the slaughterhouse.

Research and development

We undertake research with the aim of gaining new scientific or technical knowledge, and recognise this expenditure in the income statement as we incur it.

The Group constantly monitors its research activities. When research projects achieve technical feasibility and are commercially viable, our policy is to capitalise further development costs within intangible assets, in accordance with IAS 38.

Our development activities include developing and maintaining our porcine genetic nucleus herd and our bovine pre-stud herds. We do not capitalise development expenditure separately for these herds, as their fair value is included in the fair value of the Group's biological assets, in accordance with IAS 41.

We disclose the costs of research and herd development activities, as required by IAS 38.

New standards and interpretations

In the current year, 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 2017. Their addition has not had any material impact on the disclosures or the amounts reported in the Group Financial Statements.

- Amendments to IAS 7 – 'Disclosure Initiative';
- Amendments to IAS 12 – 'Recognition of Deferred tax Assets for Unrealised Losses'; and
- 'Annual Improvements to IFRSs 2014 -2016'.

New standards and interpretations not yet adopted

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

- IFRS 9 – 'Financial Instruments';
- IFRS 15 – 'Revenue from Contracts with Customers';
- IFRS 16 – 'Leases';
- Amendments to IFRS 2 – 'Classification and Measurement of Share-based Payments Transactions';
- IFRIC 22 – 'Foreign Currency Transactions and Advance Consideration'; and
- IFRIC 23 – 'Uncertainty over Income Tax Treatments'.

IFRS 15 'Revenue from Contracts with Customers' is effective for periods beginning on or after 1 January 2018 and therefore will be effective in the Group financial statements for the year ending 30 June 2019. 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 current accounting standards.

The Group has reviewed the impact of IFRS 15 on a sample of the contracts that it enters into with its customers. Following this review, we determined that there are no material impacts to the revenue recognised in the results for the year ended 30 June 2018. Consequently, no restatement will be made to the comparatives presented in this report and no adjustment is required to the reserves.

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 therefore will be effective in the Group Financial Statements for the year ending 30 June 2019.

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 Group has completed an initial assessment of the impact of IFRS 9 and has concluded that adoption will not have a material impact on either the Consolidated Income Statement or the Consolidated Balance Sheet. The Group will apply all aspects of the new standard at the transition date of 1 July 2018, by adjusting opening retained earnings in the balance sheet. However, a restatement of the comparative periods is not expected.

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

3. Significant accounting policies applied in the current reporting period that relate to the Financial Statements as a whole continued

IFRS 16 'Leases' is effective for periods beginning on or after 1 January 2019 and therefore will be effective in the Group Financial Statements for the year ending 30 June 2020.

The Group will transition to IFRS 16 on 1 June 2019. The standard introduces a comprehensive model for identifying lease arrangements and accounting treatments for both lessors and lessees and will replace the current lease accounting requirements including IAS 17 Leases and the related interpretations.

For lessees, IFRS 16 removes distinctions between operating leases and finance leases. These are replaced by a model where a right of use asset and a corresponding liability are recognised for all leases except for short-term leases and low value assets. In contrast to lessee accounting, IFRS 16 substantially carries forward the lessor accounting requirements in IAS 17, and continues to require a lessor to classify a lease either as an operating lease or a finance lease.

From the undiscounted lease commitments presented in note 31, we anticipate that implementing the new standard will have a significant impact on the Group's reported assets and liabilities. In addition, the implementation of the standard will affect the Consolidated Income Statement and classification of cash flows. A reliable estimate of the financial impact on the Group's consolidated results depends on a number of unresolved areas, including; choice of transition option, approach to determining discount rates, estimates of lease-term for leases with options to break and renew and conclusion of data collection. In addition, the financial impact depends on the facts and circumstances at the time of transition. For these reasons, it is not yet practicable to determine a reliable estimate of the financial impact on the Group.

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.

4. Critical accounting judgements and key sources of estimation uncertainty

In applying the Group's accounting policies, which are described in note 3 or in the specific note the policy relates to, the Directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods, if the revision affects both current and future periods.

Estimates and key sources of estimation uncertainty

Determination of the fair value of biological assets (note 15)

Determining the fair values of our bovine and porcine biological assets requires significant estimates and assumptions.

Below is a list of these significant estimates and assumptions, showing whether we consider them to be observable or unobservable inputs to the fair value determination. In addition, we identify those inputs that are 'readily obtainable transactional data' or 'open market prices'.

	Significant estimates and assumptions	Observable/ Unobservable	
Bovine	Long-term dairy volume growth rate	Unobservable	n/a
	Short-term dairy volume growth rate	Unobservable	n/a
	Value at point of production	Unobservable	n/a
	Unit prices	Observable	readily obtainable
	Animals' useful lifespan	Observable	readily obtainable
	Percentage of volume from dairy bulls to be produced internally	Unobservable	n/a
	Risk-adjusted discount rate	Unobservable	n/a
Porcine (general)	Animals' useful lifespan	Observable	readily obtainable
	The proportion of animals that go to slaughter	Observable	readily obtainable
	The mix of boars and gilts	Observable	readily obtainable
	Discount rate	Unobservable	n/a
Porcine (pure line herds)	Number of future generations attributable to the current herds	Observable	readily obtainable
	Fair value prices achieved on sales	Observable	open market prices
	Animals' expected useful lifespan and productivity	Observable	readily obtainable
	Risk-adjusted discount rate	Unobservable	n/a

4. Critical accounting judgements and key sources of estimation uncertainty *continued*

Impairment of Bovine goodwill and related intangible assets (note 14)

Determining whether bovine goodwill and related intangible assets are impaired requires us to consider any specific impairment indicators and to estimate the value in use of the cash-generating units to which we have allocated goodwill and intangible tangible assets. The value in use calculation requires us to estimate the future cash flows arising from the cash-generating unit ('CGU'), the appropriate discount rate and the growth rates, in order to calculate present value.

5. 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 Group Chief Executive and the Board to allocate resources to the segments and to assess their performance. The Group's operating and reporting structure comprises of 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 and segment assets and liabilities is provided below. We do not include our adjusting items in the segments, as we believe these do not reflect the underlying progress 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

	2018 £m	2017 £m
Genus PIC	247.7	249.5
Genus ABS	210.6	195.9
Research and Development		
Porcine Product Development	9.8	10.7
Bovine Product Development	2.2	3.0
Gene Editing	–	–
Other Research and Development	–	–
	12.0	13.7
	470.3	459.1

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 the Group Income Statement.

Adjusted operating profit

	2018 £m	2017 £m
Genus PIC	88.7	87.7
Genus ABS	26.2	22.3
Research and Development		
Porcine Product Development	(17.0)	(16.6)
Bovine Product Development	(16.6)	(14.2)
Gene Editing	(5.0)	(3.5)
Other Research and Development	(7.6)	(8.4)
	(46.2)	(42.7)
Adjusted segment operating profit	68.7	67.3
Central	(11.0)	(12.2)
Adjusted operating profit	57.7	55.1

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

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5. Segmental information *continued*

Other segment information

	Depreciation		Amortisation		Additions to non-current assets	
	2018 £m	2017 £m	2018 £m	2017 £m	2018 £m	2017 £m
Genus PIC	0.8	0.8	7.0	6.0	2.9	1.1
Genus ABS	2.3	2.1	2.1	2.1	9.7	3.4
Research and Development						
Research	0.3	0.3	1.1	0.9	–	2.5
Porcine Product Development	2.0	1.9	–	–	0.8	2.6
Bovine Product Development	2.1	1.4	3.6	2.2	8.9	5.6
	4.4	3.6	4.7	3.1	9.7	10.7
Segment total	7.5	6.5	13.8	11.2	22.3	15.2
Central	2.9	2.3	–	–	5.5	5.0
Total	10.4	8.8	13.8	11.2	27.8	20.2

	Segment assets		Segment liabilities	
	2018 £m	2017 £m	2018 £m	2017 £m
Genus PIC	235.9	258.3	(48.3)	(60.1)
Genus ABS	160.6	132.8	(41.2)	(41.1)
Research and Development				
Research	12.5	5.9	(1.3)	(1.4)
Porcine Product Development	209.5	182.4	(76.5)	(72.0)
Bovine Product Development	152.8	202.7	(31.1)	(52.6)
	374.8	391.0	(108.9)	(126.0)
Segment total	771.3	782.1	(198.4)	(227.2)
Central	17.9	15.5	(171.7)	(168.3)
Total	789.2	797.6	(370.1)	(395.5)

In the current year, IntelliGen assets are included within Genus ABS. However, in the prior year these assets were included within Bovine Product Development, as the technology had not yet commercialised globally.

Exceptional items of £5.9m expense (2017: £2.5m expense), relate to Genus ABS (£5.0m expense), Genus PIC (£0.4m expense) and our central segment (£0.5m expense). Note 7 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.

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

	2018 £m	2017 £m
North America	208.6	214.5
Latin America	75.1	71.4
Rest of Europe, Middle East and Africa	51.1	48.5
UK	76.7	70.0
Asia	58.8	54.7
	470.3	459.1

5. Segmental information *continued***Non-current assets (excluding deferred taxation and financial instruments)**

	2018 £m	2017 £m
North America	450.2	440.1
Latin America	37.4	46.4
Rest of Europe, Middle East and Africa	41.7	37.3
UK	41.0	61.0
Asia	18.9	13.2
	589.2	598.0

6. Revenue

	2018 £m	2017 £m
Sale of animals, semen, embryos and associated products and services	341.1	335.7
Royalties – animal and semen	121.8	116.1
Consulting services	7.4	7.3
	470.3	459.1
Interest income (see note 10)	0.2	0.8
	470.5	459.9

7. Exceptional items**Accounting policy**

We present exceptional items separately, as we believe it helps to improve the understanding of the Group's underlying performance.

In determining whether an item should be presented as exceptional, we consider items which are material either because of their size or their nature, and those which are non-recurring. For an item to be considered as exceptional, it must initially meet at least one of the following criteria:

- it is a one-off material item;
- it has been directly incurred as the result of either an acquisition, integration or other major restructuring programme;
- it has been previously classified as an exceptional item, and as such consistent accounting treatment is being applied; or
- it is unusual in nature e.g. outside the normal course of business.

If an item meets at least one of the criteria, we then exercise judgement as to whether the item should be classified as exceptional.

The tax impact of the exceptional items is disclosed in note 11.

	2018 £m	2017 £m
Operating (expense)/income:		
Litigation	(5.0)	(5.3)
Acquisition and integration	(1.2)	(0.6)
Other (including restructuring)	0.3	(2.3)
Pension related	–	5.7
	(5.9)	(2.5)

Litigation

Litigation includes legal fees of £5.0m (2017: £5.3m) related to the actions between ABS Global, Inc. ('ABS') and Inguran, LLC (aka Sexing Technologies or STGenetics ('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.

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

7. Exceptional items continued

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 the appeal was heard by a federal court of appeals on 5 December 2017. 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 has appealed the '092 patent decision and the validity of the '987 patent will be considered as part of the ABS Action appeal.

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 upfront amount of US\$750,000 and an ongoing royalty of US\$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 US\$500,000 and an ongoing royalty of US\$0.50 per straw for the use of ST's '092 patent in the US; (iii) ABS should pay XY, LLC damages of US\$750,000 for the use of certain XY trade secrets; and (iv) ABS had breached the confidentiality obligations under the 2012 semen sorting agreement.

ABS and the Company appealed the '987 patent and the breach of contract decisions and the appeal hearing was heard on 20 February 2018. The parties await the Court of Appeal's decision. Damages of US\$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 US\$0.50 royalty going forward. Claims for legal costs (and post judgement interest) already incurred in connection with the ABS Action have been filed by both parties. ABS has sought approximately US\$5.4m in legal fees and costs already charged to the income statement and ST has sought approximately US\$280,000 in legal costs (excluding fees). Both parties await the Court's decision.

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 alleges 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: (i) ST has breached its 2012 semen sorting agreement with ABS by failing to produce sorted semen that complies with the contractual specifications; and (ii) ST has obtained certain patents through inequitable conduct. In addition, ABS has filed six IPRs seeking to revoke the additional patents raised in the New Litigation. PTAB instituted hearings in relation to two IPRs, refused to institute hearings on two other IPRs, and the parties await a decision on another IPR. 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.

The hearing date for the New Litigation has been set for 1 April 2019, and the Company and ABS intend to pursue vigorously their counterclaims and defend the patent infringement and other claims.

Acquisitions and integration

During the year, £1.2m of expenses were incurred, with £0.8m of expenses in relation to acquisitions and integration, principally of Møllevang (see note 36).

Other (including restructuring)

Included within 'Other' there is a credit of £0.3m which principally relates to an insurance receipt from a legacy environmental claim.

Pension related

During the prior year, National Milk Records plc ('NMR') withdrew from the Mandatory Provident Fund ('MPF') under a Flexible Apportionment Arrangement between NMR, Genus and the Trustees of the MPF. In return for the right to withdraw from the MPF, NMR made a one-off, lump sum cash payment of £10.1m to the MPF, equivalent to the undiscounted value of all NMR's future payments under the existing MPF recovery plan, which extends to March 2026. NMR also made a payment to Genus of £4.7m, with £1.4m being satisfied by the issue of NMR shares.

As a result of the NMR withdrawal, Genus recognised in the prior year £5.7m as an exceptional credit in the year ended 30 June 2017, with £4.5m (£4.7m payment, net of fees) being received directly from NMR, and £1.2m from the MPF pension scheme reflecting the impact of NMR paying undiscounted amounts into the scheme.

8. Operating profit

Operating costs comprise:

	2018 £m	2017 £m
Cost of sales excluding net IAS 41 valuation movement on biological assets and amortisation of multiplier contract intangible assets	(196.6)	(199.7)
Net IAS 41 valuation movement on biological assets	(28.7)	(1.1)
Amortisation of multiplier contract intangible assets	(0.3)	(0.2)
Cost of goods sold	(225.6)	(201.0)
Other cost of sales	(91.0)	(88.2)
Amortisation of customer relationship intangible assets	(6.2)	(5.8)
Other cost of sales	(97.2)	(94.0)
Research and Development expenditure	(45.5)	(41.5)
Amortisation of technology and licences and patents	(5.9)	(3.9)
Research and Development costs	(51.4)	(45.4)
Administrative expenses	(75.2)	(72.1)
Share-based payment expense	(5.4)	(4.6)
Amortisation of software, licences and patents	(1.4)	(1.3)
Exceptional items within administrative expenses	(5.9)	(2.5)
Total administrative expenses	(87.9)	(80.5)
Total operating costs	(462.1)	(420.9)

Profit for the year is stated after charging/(crediting):

	2018 £m	2017 £m
Net foreign exchange losses	0.2	0.1
Depreciation of owned fixed assets	8.5	7.1
Depreciation of assets held under finance leases and hire purchase contracts	1.9	1.7
(Profit)/loss on disposal of fixed assets	(0.1)	0.2
Operating lease rentals		
– plant and machinery	4.0	4.0
– other	4.3	4.5
Employee costs (see note 9)	147.4	137.6
Cost of inventories recognised as an expense	92.6	98.5

Auditor's remuneration is as follows:

	2018 £m	2017 £m
Fees payable to the Company's auditor and their associates for the audit of the Company's Annual Report and Financial Statements	0.3	0.3
Fees payable to the Company's auditor and their associates for other services to the Group		
– The audit of the Company's undertakings	0.5	0.5
Total audit fees	0.8	0.8
Tax compliance services	0.1	0.1
Other services	–	0.2
Total non-audit fees	0.1	0.3
Total fees to the Group's auditor	0.9	1.1
Fees payable to other auditors of Group companies	–	–

Non-audit tax services principally comprise tax compliance support services. In the prior year, other services included financial due diligence provided in relation to the acquisition of Hermitage Genetics. These services fall within the non-audit services policy approved by the Company's Audit Committee.

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

9. Employee costs

This note shows the total employment costs and the average number of people employed by segment during the year.

Employee costs, including Directors' remuneration, amounted to:

	2018 £m	2017 £m
Wages and salaries (including bonuses and sales commission)	127.5	118.4
Social security costs	12.7	12.1
Contributions to defined contribution pension plans	3.6	3.5
Share-based payment expense (excluding National Insurance)	4.6	3.6
	148.4	137.6

The employee costs above are inclusive of £1.0m (2017: £nil) which has been capitalised into intangible assets as part of the development of GenusOne (see note 14).

The average monthly number of employees and full-time equivalent employees, including Directors, was as follows:

	Number of employees		Full time equivalent	
	2018 Number	2017 Number	2018 Number	2017 Number
Genus PIC	707	738	658	686
Genus ABS	1,749	1,683	1,665	1,603
Research and Development Central	219	168	215	163
	112	76	104	69
	2,787	2,665	2,642	2,521
Included in the totals above:				
UK	766	763	707	704

The Directors' Remuneration Report sets out details of the Directors' remuneration, pensions and share options.

10. Net finance costs

Net finance costs mainly arise from interest due on bank loans, pension scheme liabilities, amortisation of debt issue costs and the results of hedging transactions used to manage foreign exchange and interest rate movements.

Accounting policy

We recognise interest income and interest expense in the income statement, as they accrue.

	2018 £m	2017 £m
Interest payable on bank loans and overdrafts	(3.0)	(2.7)
Amortisation of debt issue costs	(0.4)	(0.4)
Other interest payable	(0.2)	(0.1)
Net interest cost in respect of pension scheme liabilities	(1.0)	(1.2)
Net interest cost on derivative financial instruments	(0.2)	(0.1)
Total interest expense	(4.8)	(4.5)
Interest income on bank deposits	0.2	0.8
Total interest income	0.2	0.8
Net finance costs	(4.6)	(3.7)

11. Taxation and deferred taxation

This note explains how our Group tax charge arises. The deferred tax section of the note also provides information on our expected future tax charges and sets out the tax assets and liabilities held across the Group, together with our view on whether or not we expect to be able to make use of them in the future.

Accounting policies

Tax on the profit or loss for the year comprises current and deferred tax. We recognise tax in the income statement, unless:

- it relates to items we have recognised directly in equity, in which case we recognise it in equity; or
- it arises as a fair value adjustment in a business combination.

We provide for current tax, including UK corporation tax and foreign tax, at the amounts we expect to pay (or recover), using the tax rates and the laws enacted or substantively enacted at the balance sheet date, together with any adjustments to tax payable in respect of previous years.

Deferred tax is tax we expect to pay or recover due to differences between the carrying amounts of our assets and liabilities in our Financial Statements and the corresponding tax bases used in calculating our taxable profit. We account for deferred tax using the balance sheet liability method.

We generally recognise deferred tax liabilities for all taxable temporary differences, and deferred tax assets to the extent that we will probably have taxable profits to utilise deductible temporary differences against. We do not recognise these assets and liabilities if the temporary difference arises from:

- our initial recognition of goodwill; or
- our initial recognition of other assets and liabilities in a transaction (other than a business combination) that affects neither our taxable profit nor our accounting profit.

We recognise deferred tax liabilities for taxable temporary differences arising on our investments in subsidiaries, and interests in joint ventures and associates, except where we can control the reversal of the temporary difference and it is probable that it will not reverse in the foreseeable future.

We calculate deferred tax at the tax rates we expect to apply in the period when we settle the liability or realise the asset. We charge or credit deferred tax in the income statement, except when it relates to items we have charged or credited directly to equity, in which case the deferred tax is also dealt with in equity.

Income tax expense

	2018 £m	2017 £m
Current tax expense		
Current period	11.7	9.9
Adjustment for prior periods	0.9	0.4
Total current tax expense in the Group Income Statement	12.6	10.3
Deferred tax expense		
Origination and reversal of temporary differences	(45.3)	(2.6)
Adjustment for prior periods	(1.1)	(1.3)
Total deferred tax credit in the Group Income Statement	(46.4)	(3.9)
Total income tax (credit)/expense excluding share of income tax of equity accounted investees	(33.8)	6.4
Share of income tax of equity accounted investees (see note 17)	1.5	1.4
Total income tax (credit)/expense in the Group Income Statement	(32.3)	7.8

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

11. Taxation and deferred taxation *continued*

Reconciliation of effective tax rate

	2018 %	2018 £m	2017 %	2017 £m
Profit before tax		7.8		40.7
Add back share of income tax of equity accounted investees		1.5		1.4
Profit before tax excluding share of income tax of equity accounted investees		9.3		42.1
Income tax at UK corporation tax of 19.00% (2017: 19.75%)	19.0	1.8	19.8	8.3
Effect of tax rates in foreign jurisdictions	–	–	7.8	3.3
Non-deductible expenses	25.3	2.3	0.7	0.3
Tax exempt income and incentives	(27.8)	(2.6)	(5.0)	(2.1)
Change in tax rate	(350.4)	(32.6)	(2.8)	(1.2)
Movements in recognition of tax losses	(2.3)	(0.2)	0.7	0.3
Change in unrecognised temporary differences	(1.4)	(0.1)	(0.7)	(0.3)
Tax overprovided in prior periods	(1.4)	(0.1)	(1.0)	(0.4)
Tax on undistributed reserves	(8.3)	(0.8)	(1.0)	(0.4)
Total income tax expense in the Group Income Statement	(347.3)	(32.3)	18.5	7.8

The tax rate for the year depends on our mix of profits by country and our ability to recognise deferred tax assets in respect of losses in some of our smaller territories. Tax is calculated using prevailing tax legislation, reliefs, and existing interpretations and practice. The effective tax rate of (347.3)% is lower than the UK corporation tax rate of 19% primarily due to the impact of the Tax Cuts and Jobs Act (US Tax Reform), enacted on 22 December 2017, which reduced the US Federal corporate income tax rate from 35% to 21%. This has resulted in a one-off non-cash tax credit of £32.5m, as a result of the remeasurement of the Group's US deferred tax liabilities in the current period.

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.

In October 2017, the European Commission announced that it would be conducting a State Aid investigation into the Group Financing Partial Exemption contained within the UK's controlled foreign company ('CFC') legislation. Similar to other UK-based international companies, the Group may be affected by the final outcome of this investigation.

There is considerable uncertainty as to both the final outcome of this investigation and any corresponding liability, but the Group has calculated that the maximum potential exposure would be £3.3 million if the European Commission were to conclude that the Group Financing Partial Exemption was in contravention of the EU's State Aid rules. In view of the uncertainty as to the final outcome of this investigation, the Group does not consider that a provision is required at this current time.

The tax credit attributable to exceptional items is £1.6m (2017: credit of £1.5m).

Income tax recognised directly in the Statement of Comprehensive Income and Statement of Changes in Equity

	2018 £m	2017 £m
Income tax recognised directly to the Statement of Comprehensive Income		
Financial instruments	0.2	0.4
Foreign exchange differences on long-term intra-Group currency loans and balances	0.2	0.4
Actuarial movement on retirement benefit obligations	0.3	(0.4)
Translation of biological assets, intangible assets and finance leases	(2.6)	3.8
	(1.9)	4.2
Income tax recognised directly to the Statement of Changes in Equity		
Share-based payment expense	(1.4)	(0.4)
Change of non-controlling interest deferred tax on biological assets and intangibles	(0.8)	–
	(2.2)	(0.4)

11. Taxation and deferred taxation continued**Unrecognised deferred tax assets and liabilities**

At the balance sheet date, the Group had unused tax losses which were available for offset against future profits, with a potential tax benefit of £14.5m (2017: £15.6m). We have recognised a deferred tax asset in respect of £2.2m (2017: £2.4m) of these benefits, as we expect these losses to be offset against future profits of the relevant jurisdictions in the near term. We have not recognised a deferred tax asset in respect of the remaining £12.3m (2017: £13.2m), due to uncertainty about the availability of future taxable profits in the relevant jurisdictions.

At 30 June 2018, the expiry dates of deferred tax assets in respect of losses available for the carry forward were as follows:

	Expiring within		Unlimited £m	Total £m
	1-10 years £m	11-20 years £m		
Losses for which a deferred tax asset is recognised	–	0.1	2.1	2.2
Losses for which no deferred tax asset is recognised	–	–	12.3	12.3
	–	0.1	14.4	14.5

At 30 June 2017, the expiry dates of deferred tax assets in respect of losses available for the carry forward were as follows:

	Expiring within		Unlimited £m	Total £m
	1-10 years £m	11-20 years £m		
Losses for which a deferred tax asset is recognised	–	0.2	2.2	2.4
Losses for which no deferred tax asset is recognised	–	–	13.2	13.2
	–	0.2	15.4	15.6

The gross value of losses for which deferred tax assets are recognised is £12.7m (2017: £12.9m). The gross value of losses for which deferred tax assets are not recognised is £42.3m (2017: £44.9m).

We have not recognised deferred tax liabilities totalling £2.0m (2017: £4.5m) for the withholding tax and other taxes that would be payable on the unremitted earnings of certain overseas subsidiaries. This is because we can control the timing and reversal of these differences and it is probable that the differences will not reverse in the foreseeable future.

Recognised deferred tax assets and liabilities

We have offset deferred tax assets and liabilities above, to the extent that they arise in the same tax jurisdiction.

The analysis of deferred tax balances is set out below:

	2018 £m	2017 £m
Deferred tax assets	(4.3)	(3.8)
Deferred tax liabilities	74.8	124.2
	70.5	120.4

UK deferred tax assets and liabilities are stated at 17%, which is the UK headline rate of tax effective from 1 April 2020. The tax effect of timing differences reversing in the UK between the reporting date and 1 April 2020, at current rates over 17%, is immaterial.

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11. Taxation and deferred taxation *continued*

Movement in net deferred tax liabilities during the year

	As at 1 July 2017 £m	Recognised in income statement £m	Changes in tax rate recognised in income statement £m	Prior year adjustments recognised in income statement £m	Recognised in equity £m	Acquisitions £m	Foreign exchange difference £m	As at 30 June 2018 £m
Property, plant and equipment	8.6	(0.8)	(3.0)	0.3	–	–	(0.2)	4.9
Intangible assets	20.8	(2.4)	(3.6)	(0.5)	(1.3)	–	–	13.0
Biological assets	111.7	(10.2)	(29.3)	0.6	(2.1)	–	–	70.7
Retirement benefit obligations	(8.5)	1.1	0.7	0.3	0.3	–	0.1	(6.0)
Share-based payment expense	(2.6)	(0.1)	–	–	(0.7)	–	–	(3.4)
Short-term timing differences	(7.2)	(0.7)	2.6	(1.6)	0.2	–	0.2	(6.5)
Tax loss carry-forwards	(2.4)	0.4	–	(0.2)	–	–	–	(2.2)
	120.4	(12.7)	(32.6)	(1.1)	(3.6)	–	0.1	70.5

	As at 1 July 2016 £m	Recognised in income statement £m	Changes in tax rate recognised in income statement £m	Prior year adjustments recognised in income statement £m	Recognised in equity £m	Acquisitions £m	Foreign exchange difference £m	As at 30 June 2017 £m
Property, plant and equipment	7.0	1.2	0.3	(0.1)	–	–	0.2	8.6
Intangible assets	18.7	(2.2)	(0.4)	–	–	4.4	0.3	20.8
Biological assets	109.7	(0.1)	(1.6)	–	3.7	–	–	111.7
Retirement benefit obligations	(9.6)	1.3	0.2	0.1	(0.4)	–	(0.1)	(8.5)
Share-based payment expense	(2.2)	(0.6)	–	0.2	–	–	–	(2.6)
Short-term timing differences	(7.3)	(0.8)	(0.2)	(1.2)	1.2	0.8	0.3	(7.2)
Tax loss carry-forwards	(2.5)	–	0.1	–	–	–	–	(2.4)
	113.8	(1.2)	(1.6)	(1.0)	4.5	5.2	0.7	120.4

12. 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

	2018 (pence)	2017 (pence)
Basic earnings per share	69.7	53.8

The calculation of basic earnings per share from continuing operations for the year ended 30 June 2018 is based on the net profit attributable to owners of the Company from continuing operations of £42.7m (2017: £32.8m) and a weighted average number of ordinary shares outstanding of 61,234,000 (2017: 60,944,000), which is calculated as follows:

Weighted average number of ordinary shares (basic)

	2018 000s	2017 000s
Issued ordinary shares at the start of the year	61,162	61,013
Effect of own shares held	(180)	(163)
Shares issued on exercise of stock options	20	47
Shares issued in relation to Employee Benefit Trust	232	47
Weighted average number of ordinary shares in year	61,234	60,944

12. Earnings per share *continued***Diluted earnings per share from continuing operations**

	2018 (pence)	2017 (pence)
Diluted earnings per share	68.7	53.0

The calculation of diluted earnings per share from continuing operations for the year ended 30 June 2018 is based on the net profit attributable to owners of the Company from continuing operations of £42.7m (2017: £32.8m) and a weighted average number of ordinary shares outstanding, after adjusting for the effects of all potential dilutive ordinary shares, of 62,120,000 (2017: 61,833,000), which is calculated as follows:

Weighted average number of ordinary shares (diluted)

	2018 000s	2017 000s
Weighted average number of ordinary shares (basic)	61,234	60,944
Dilutive effect of share options	886	889
Weighted average number of ordinary shares for the purposes of diluted earnings per share	62,120	61,833

Adjusted earnings per share from continuing operations

	2018 (pence)	2017 (pence)
Adjusted earnings per share	75.9	69.4
Diluted adjusted earnings per share	74.9	68.4

Adjusted earnings per share is calculated on profit before 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 £46.5m (2017: £42.3m), which is calculated as follows:

	2018 £m	2017 £m
Profit before tax from continuing operations	7.8	40.7
Add/(deduct):		
Net IAS 41 valuation movement on biological assets	28.7	1.1
Amortisation of acquired intangible assets	9.5	8.7
Share-based payment expense	5.4	4.6
Exceptional items (see note 7)	5.9	2.5
Net IAS 41 valuation movement on biological assets in joint ventures	0.5	(0.5)
Tax on joint ventures and associates	1.5	1.4
Attributable to non-controlling interest	(0.8)	(2.1)
Adjusted profit before tax	58.5	56.4
Adjusted tax charge	(12.0)	(14.1)
Adjusted profit after tax	46.5	42.3
Effective tax rate on adjusted profit	20.5%	25.0%

Reconciliation of effective tax rate

	2018 Profit £m	2018 Tax £m	2018 %
Total income tax expense in the Group Income Statement	9.3	(32.3)	(347.3)
Net IAS 41 valuation movement on biological assets	28.7	38.8	135.2
Amortisation of acquired intangible assets	9.5	3.1	32.6
Share-based payment expense	5.4	0.9	16.7
Exceptional items (see note 7)	5.9	1.6	27.1
Net IAS 41 valuation movement on biological assets in joint ventures	0.5	-	-
Attributable to non-controlling interest	(0.8)	(0.1)	12.5
Adjusted profit before tax	58.5	12.0	20.5

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12. Earnings per share continued

	2017 Profit £m	2017 Tax £m	2017 %
Total income tax expense in the Group Income Statement	42.1	7.8	18.5
Net IAS 41 valuation movement on biological assets	1.1	1.7	154.5
Amortisation of acquired intangible assets	8.7	3.1	35.6
Share-based payment expense	4.6	0.5	10.9
Exceptional items (see note 7)	2.5	1.5	60.0
Net IAS 41 valuation movement on biological assets in joint ventures	(0.5)	(0.2)	40.0
Attributable to non-controlling interest	(2.1)	(0.3)	14.3
Adjusted profit before tax	56.4	14.1	25.0

13. Dividends

Dividends are one type of shareholder return, historically paid to our shareholders in early December and late March.

Amounts recognised as distributions to equity holders in the year

	2018 £m	2017 £m
Final dividend		
Final dividend for the year ended 30 June 2017 of 16.2 pence per share	9.9	–
Final dividend for the year ended 30 June 2016 of 14.7 pence per share	–	9.0
Interim dividend		
Interim dividend for the year ended 30 June 2018 of 8.1 pence per share	5.0	–
Interim dividend for the year ended 30 June 2017 of 7.4 pence per share	–	4.5
	14.9	13.5

The Directors have proposed a final dividend of 17.9 pence per share for 2018. 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.

14. Intangible assets

Our Group Balance Sheet contains significant intangible assets, mainly in relation to goodwill, acquired technology, customer relationships and our IntelliGen (previously known as Genus Sexed Semen) development project.

Accounting policies

Identifiable intangible assets are recognised when the Group controls the asset, it is probable that future economic benefits attributed to the asset will flow to the Group and the cost of the asset can be reliably measured.

Goodwill

When we acquire a subsidiary, associate or joint venture, the goodwill arising is the excess of the acquisition cost, excluding transaction costs, over our interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities. Identifiable assets include intangible assets which could be sold separately or which arise from legal rights, regardless of whether those rights are separable.

We state goodwill at cost less any accumulated impairment losses. We allocate goodwill to CGUs, which are the smallest identifiable group of assets that generate cash inflows that are largely independent of the cash inflows from other assets or groups of assets. We do not amortise goodwill but we do test it annually for impairment.

IAS 21 requires us to treat the following as assets and liabilities of the acquired entity, rather than of the acquiring entity:

- goodwill arising on acquisition of a foreign operation; and
- any fair value adjustments we make on acquisition to the carrying amounts of the acquiree's assets and liabilities.

We therefore express them in the foreign operation's functional currency and retranslate them at the balance sheet date.

14. Intangible assets *continued*

Intangible assets

Intangible assets that we have acquired in a business combination since 1 April 2005 are identified and recognised separately from goodwill, where they meet the definition of an intangible asset and we can reliably measure their fair values. Their cost is their fair value at the acquisition date.

After their initial recognition, we report these intangible assets at cost less accumulated amortisation and accumulated impairment losses. This is the same basis as for intangible assets acquired separately.

The estimated useful lives for intangible assets are as follows:

Porcine and bovine genetics technology	20 years
Multiplier contracts	15 years
Customer relationships	10 to 17 years
IntelliGen	10 years
Patents and licences	term of agreement (4 years)
Software	2 to 10 years

Intangible assets acquired separately

We carry intangible assets acquired other than through a business combination at cost less accumulated amortisation and any impairment loss. We charge amortisation on a straight-line basis over their estimated useful lives, and review the useful life and amortisation method at the end of each financial year, accounting for the effect of any changes in estimate on a prospective basis.

Impairment

We recognise that accounting for intangible assets is an area which includes critical accounting judgements and key sources of estimation uncertainty. See note 4.

We review the carrying amounts of our tangible and intangible assets at each balance sheet date, to determine whether there is any indication of impairment. If any indication exists, we estimate the asset's recoverable amount.

For goodwill, and tangible and intangible assets that are not yet available for use, we estimate the recoverable amount at each balance sheet date. The recoverable amount is the greater of their net selling price and value in use. In assessing value in use, we discount the estimated future cash flows to their present value, using a pre-tax discount rate of 10.4% (2017: 10.7%), which is derived from the Group's weighted average cost of capital ('WACC'). For some countries we add a premium to this rate, to reflect the risk attributable to that country. If the asset does not generate largely independent cash inflows, we determine the recoverable amount for the cash-generating units ('CGUs') that the asset belongs to.

We recognise an impairment loss in the income statement whenever the carrying amount of an asset or its CGU exceeds its recoverable amount.

When we recognise an impairment loss in respect of a CGU, we first allocate it to reduce the carrying amount of any goodwill allocated to CGUs, and then apply any remaining loss to reduce the carrying amount of the unit's other assets on a pro rata basis.

Reversals of impairment

We reverse an impairment loss in respect of assets other than goodwill when the impairment loss may no longer exist and we have changed the estimates we used to determine the recoverable amount.

We only reverse an impairment loss to the extent that the asset's carrying amount does not exceed the carrying amount it would have had, net of depreciation or amortisation, if we had not recognised the impairment loss.

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14. Intangible assets continued

	Technology £m	Brand, multiplier contracts and customer relationships £m	Separately identified acquired intangible assets £m	Software Including Assets Under Construction £m	IntelliGen £m	Patents, licence and other £m	Total £m	Goodwill £m
Cost								
Balance at 1 July 2016	46.6	72.7	119.3	6.9	17.8	2.6	146.6	86.0
Additions	–	–	–	0.9	3.1	1.5	5.5	–
Acquisition	6.7	7.4	14.1	–	–	–	14.1	16.2
Reclassified from tangible fixed assets	–	–	–	1.0	–	–	1.0	–
Effect of movements in exchange rates	0.1	2.2	2.3	–	0.4	–	2.7	2.5
Balance at 30 June 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
Amortisation and impairment losses								
Balance at 1 July 2016	22.1	40.9	63.0	5.4	–	0.2	68.6	–
Reclassified from tangible fixed assets	–	–	–	0.7	–	–	0.7	–
Amortisation for the year	2.7	6.0	8.7	1.3	0.4	0.8	11.2	–
Effect of movements in exchange rates	–	1.0	1.0	0.1	–	–	1.1	–
Balance at 30 June 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	–
Carrying amounts 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
At 30 June 2016	24.5	31.8	56.3	1.5	17.8	2.4	78.0	86.0

Included within the software class of assets is £3.4m of costs capitalised in relation to software assets that are in the course of construction. Of this, £2.6m relates to the ongoing development of GenusOne, a single global enterprise system.

14. Intangible assets continued**Impairment testing for CGUs containing goodwill**

To test impairment, we allocate goodwill to our CGUs which are in line with our operating segments. These are the lowest level within the Group at which we monitor goodwill for internal management purposes.

The aggregate carrying amounts of goodwill allocated to each operating segment are as follows:

	2018 £m	2017 £m
Genus PIC	70.8	72.3
Genus ABS	31.2	32.4
	102.0	104.7

We test goodwill annually for impairment, or more frequently if there are indications that goodwill might be impaired. We determine the recoverable amount of our CGUs by using value in use calculations. The key assumptions for these calculations relate to discount rates, growth rates, expected changes to selling prices, direct costs and the cost saving derived from the use of IntelliGen technology.

We have estimated the pre-tax discount rate using the Group's WACC. We risk-adjusted the discount rate for risks specific to each market, adding between nil and 10% to the WACC as appropriate. The post-tax WACC of 8.0% (2017: 8.0%) we applied to our cash flow projections equates to a pre-tax rate of approximately 10.4% (2017: 10.7%). Our estimates of changes in selling prices and direct costs are based on past experience and our expectations of future changes in the market.

The annual impairment test is performed immediately before year end. It is based on cash flows derived from our most recent financial and strategic plans approved by management. A growth rate of 2.5% (2017: 2.5%) has been used to extrapolate cash flows beyond this period. Short-term profitability and growth rates are based on past experience, current trading conditions and our expectations of future changes in the market.

The Genus PIC and Genus ABS CGUs are deemed to be significant. The individual country assumptions used to determine value in use for these CGUs are:

	Risk premium used to adjust discount rate		Short-term growth rates (CAGR)		Long-term growth rates	
	2018	2017	2018	2017	2018	2017
Genus PIC	nil-10%	nil-14%	6-23%	6-24%	2.5%	2.5%
Genus ABS	nil-10%	nil-14%	8-20%	1-26%	2.5%	2.5%

	Weighted average risk-adjusted discount rate		Weighted average short-term growth rates (CAGR)	
	2018	2017	2018	2017
Genus PIC	9%	9%	10%	11%
Genus ABS	9%	9%	11%	8%

The rates towards the higher end of the range above represent those which are applied to our smaller entities and those in emerging markets and hence appear high relative to others.

Sensitivity to changes in assumptions

Management has performed sensitivity analysis on the key assumptions with other variables held constant, with other variables simultaneously changed and incorporating the potential impact of the principal risk and uncertainties outlined on pages 12 and 13, in particular the impacts of biosecurity, market downturns, continuity of supply and increased competition taking into account the likely degree of available mitigating actions. Management has concluded that there are no reasonably possible changes in any one of the key assumptions that would cause the carrying amounts of goodwill to exceed the value in use of PIC and ABS.

Management has identified the following assumptions as key sources of estimation uncertainty within the ABS CGU (see note 4).

	2018	2017	Sensitivity
Weighted average risk-adjusted discount rate	9%	9%	Increase of 1% in the discount rate would decrease the recoverable amount by £52.8m
Weighted average short-term growth rates (CAGR)	11%	8%	Decrease of 1% in the CAGR would decrease the recoverable amount by £20.5m
Long-term growth rate	2.5%	2.5%	Decrease of 1% in the long-term growth rate would decrease the recoverable amount by £43.4m

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15. Biological assets

The Group applies quantitative genetics and biotechnology to animal breeding. We use these techniques to identify and select animals with the genes responsible for superior milk and meat, high health and performance traits. We sell breeding animals and semen to customers, who use them to produce offspring which yield greater production efficiency, milk and meat quality, for the global dairy and meat supply chain. We recognise that accounting for biological assets is an area which includes critical accounting judgements and key sources of estimation uncertainty. See note 4.

Accounting policies

Biological assets and inventories

In bovine, we use research and development to identify genetically superior bulls in a number of breeds, primarily the Holstein dairy breed. Each selected bull has its performance measured against its peers, by using genomic evaluations and progeny testing of its daughters' performance. We collect and freeze semen from the best bulls, to satisfy our customers' demand. Farmers use semen from dairy breeds to breed replacement milking stock. They use the semen we sell from beef breeds in either specialist beef breeding herds, for multiplying breeding bulls for use in natural service, or on dairy cows to produce animals to be reared for meat.

Our research and development also enables us to produce and select our own genetically superior females from which we will breed future bulls.

We hold our bovine biological assets for long-term internal use and classify them as non-current assets. We transfer bull semen to inventory at its fair value at the point of harvest, which becomes its deemed cost under IAS 2. We state our inventories at the lower of this deemed cost and net realisable value.

Sorting semen is a production process rather than a biological process. As a result, we transfer semen inventory into sexed semen production at its fair value at the point of harvest, less the cost to sell, and it becomes a component of the production process. We carry sexed semen in finished goods at production cost.

In porcine, we maintain and develop a central breeding stock (the 'nucleus herd'), to provide genetically superior animals. These genetics help make farmers and food processors more profitable, by increasing their output of consistently high-quality products, which yield higher value. So we can capitalise on our intellectual property, we outsource the vast majority of our pig production to our global multiplier network. We also sell the offspring or semen we obtain from animals in the nucleus herd to customers for use in commercial farming.

Pig sales generally occur in one of two ways: 'upfront' and 'royalty'. Under upfront sales, we receive the full fair value of the animal at the point we transfer it to the customer. Under royalty sales, the pig is regarded as comprising two separately identifiable components: its carcass and its genetic potential. We receive the initial consideration, which is approximately the animal's carcass value, at the point we transfer the pig to the customer. We retain our interest in the pig's genetic potential and receive royalties for the customer's use of this genetic potential.

The breeding animal biological assets we own, and our retained interest in the biological assets we have sold under royalty contracts, are recognised and measured at fair value at each balance sheet date. We recognise changes in fair value in the income statement, within operating profit for the period.

We classify the porcine biological assets we are using as breeding animals as non-current assets and carry them at fair value. The porcine biological assets we are holding for resale, which are the offspring of the breeding herd, are carried at fair value and classified as current assets.

In the current year, we have refined certain aspects of our IAS 41 accounting policy, specifically in respect of the balance sheet presentation of our retained interest in the genetics from royalty sales. Having considered the principles of control as part of our assessment of the impact of adoption of IFRS 15 'Revenue from Contracts with Customers' and applying these to the nature of the asset that corresponds to our retained interest, we have concluded that the most appropriate presentation of these retained interests is as non-current assets. They continue to be carried at fair value. In accordance with IAS 8 'Accounting policies, changes in accounting estimate and errors', this change in presentation has been applied retrospectively. The change of £30.1m from current to non-current biological assets does not affect prior year earnings per share or earnings.

Determination of fair values – biological assets

IAS 41 'Agriculture' requires us to show the carrying value of biological assets in the Group Balance Sheet. We determine this carrying value according to IAS 41's provisions and show the net valuation movement in the income statement. There are important differences in how we value our bovine and porcine assets, as explained below.

Bovine – we base the fair value of all bulls on the net cash flows we expect to receive from selling their semen, discounted at a current risk-adjusted market-determined pre-tax rate. The significant assumptions determining the fair values are the expected future demand for semen, the estimated biological value and the marketable life of bulls. The biological value is the estimated value at the point of production. We adjust the fair value of the bovine herd and semen inventory where a third party has a royalty from semen sales from a particular bull. Females are valued by reference to market prices and published independent genetic evaluations.

15. Biological assets continued

Porcine – the fair value of porcine biological assets includes the animals we own entirely and our retained interest in the genetics of animals we have sold under royalty arrangements. The fair value of animals we own is calculated using the animals' average live weights, plus a premium where we believe that their genetics make them saleable. We base the live weight value and the genetic premium on recent transaction prices we have achieved. The significant assumptions in determining fair values are the breeding animals' expected life, the percentage of production animals that are saleable as breeding animals and the expected sales prices. For our retained interest in the genetics of animals sold under royalty contracts, we base the initial fair value on the fair values we achieved in recent direct sales of similar animals, less the amount we received upfront for the carcass element. We then remeasure the fair value of our retained interest at each reporting date. The significant assumption in determining the fair value of the retained interest is the animals' expected life.

We value the pigs in our pure line herds, which are the repository of our proprietary genetics, as a single unit of account. We do this using a discounted cash flow model, applied to the herds' future outputs at current prices. The significant assumptions we make are the number of future generations attributable to the current herds, the fair value prices we achieve on sales, the animals' expected useful lifespan and productivity, and the discount rate.

Non-recognition of porcine multiplier contracts where no contractual interest is retained by the Group

To manage commercial risk, a very large part of our porcine business model involves selling pigs to farmers ('multipliers') who produce piglets on farms we neither manage nor control. We have the option, but not the obligation, to buy the offspring at slaughter market value plus a premium. Because the offspring have superior genetics, we can then sell them to other farmers at a premium.

We do not recognise the right to purchase offspring on the balance sheet, as we enter into the contracts and continue to hold them for the purpose of receiving non-financial items (the offspring), in accordance with our expected purchase requirements. This means the option is outside the scope of IAS 39. We do not recognise the offspring as biological assets under IAS 41, as we do not own or control them.

Fair value of biological assets

	Bovine £m	Porcine £m	Total £m
Non-current biological assets	146.3	118.3	264.6
Current biological assets	–	66.4	66.4
Balance at 30 June 2016	146.3	184.7	331.0
Increases due to purchases	11.9	176.0	187.9
Decreases attributable to sales	–	(197.8)	(197.8)
Decrease due to harvest	(40.7)	(19.3)	(60.0)
Changes in fair value less estimated sale costs	10.3	66.0	76.3
Acquisition	5.4	–	5.4
Effect of movements in exchange rates	4.3	6.0	10.3
Balance at 30 June 2017	137.5	215.6	353.1
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 (see note 37)	–	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

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15. Biological assets continued

Bovine biological assets include £6.7m (2017: £6.9m) 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 Group's weighted risk-adjusted cost of capital. This has been assessed as 8.7% (2017: 8.0%).

Decreases due to harvest represent the semen extracted from the biological assets. Inventories of such semen are shown as biological asset harvest in note 19.

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 £47.7m (2017: £87.0m).

Decreases attributable to sales during the year of £194.7m (2017: £197.8m) include £71.9m (2017: £66.6m) 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 £88.2m (2017: £111.0m) 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 £157.2m (2017: £159.5m) in respect of these contracts, comprising £48.9m (2017: £54.0m) on initial transfer of animals to customers and £108.3m (2017: £105.5m) 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 adjusted rate has been assessed as 11.0% (2017: 11.0%). The number of future generations which have been taken into account is seven (2017: seven) and their estimated useful lifespan is 1.4 years (2017: 1.4 years).

Year ended 30 June 2018

	Bovine £m	Porcine £m	Total £m
Net IAS 41 valuation movement on biological assets ¹			
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)

Year ended 30 June 2017

	Bovine £m	Porcine £m	Total £m
Net IAS 41 valuation movement on biological assets ¹			
Changes in fair value of biological assets ²	10.3	66.0	76.3
Inventory transferred to cost of sales at fair value	(38.8)	(19.3)	(58.1)
Biological assets transferred to cost of sales at fair value	–	(18.8)	(18.8)
	(28.5)	27.9	(0.6)
Fair value movement in related financial derivative	–	(0.5)	(0.5)
	(28.5)	27.4	(1.1)

1 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.

2 Includes £2.1m write down of bovine assets.

15. Biological assets *continued***Fair value measurement**

All of the biological assets fall under Level 3 of the hierarchy defined in IFRS 13.

Unobservable inputs

	2018	Sensitivity
Bovine		
Risk-adjusted discount rate	8.7%	1% increase in the discount rate would result in approximately a £3.0m reduction in value.
Value at point of production	38.8%	1% decrease in the rate would result in approximately a £4.3m reduction in value.
% of volume from dairy bulls to be produced internally	FY19 55% FY20 65% FY21 75% FY22 and thereafter 80%	If % remained at FY18 level of 50% there would be a decrease in value of approximately £5.4m.
Long-term dairy volume growth rate	1.9%	1% decrease in the growth rate would result in approximately a £0.3m reduction in value.
Short-term dairy volume growth rate	5.5%	1% decrease in the growth rate would result in approximately a £1.8m reduction in value.
Porcine		
Discount rate – upfront prices	8%	1% increase in the discount rate would result in approximately a £0.3m reduction in value.
Risk-adjusted discount rate – pure line herd	11%	1% increase in the discount rate would result in approximately a £2.8m reduction in value.

Significant increases/(decreases) in any of these inputs in isolation would result in a significantly lower or higher fair value measurement.

Additional information

	2018	2017
Bovine		
<i>Quantities at period end</i>		
Number of bulls in production	628	577
Number of bulls under development (including calves)	979	979
Total number of bulls	1,607	1,556
Number of doses of semen valued in inventory	10.2m	7.2m
<i>Amounts during the year</i>		
Fair value of agricultural produce – semen harvested during the period	£35.5m	£40.7m
Porcine		
<i>Quantities at period end</i>		
Number of pigs (own farms)	88,091	108,549
Number of pigs, excluding parent gilts, despatched on a royalty basis and valued at fair value	87,431	110,632
<i>Amounts during the year</i>		
Fair value of agricultural produce – semen harvested during the period	£20.0m	£19.3m

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16. Property, plant and equipment

We make significant investments in our property, plant and equipment. All assets are depreciated over their useful economic lives.

Accounting policies

We state property, plant and equipment at cost, together with any directly attributable acquisition expenses, or at their latest valuation, less depreciation and any impairment losses. Where parts of an item of property, plant and equipment have different useful lives, we account for them separately.

We charge depreciation to the income statement on a straight-line basis, over the estimated useful lives of each part of an asset. The estimated useful lives are as follows:

- Freehold buildings 10 to 40 years
- Leasehold buildings over the term of the lease
- Plant and equipment 3 to 20 years
- Motor vehicles 3 to 5 years

We do not depreciate land or assets under construction.

	Land and buildings £m	Plant, motor vehicles and equipment £m	Assets under construction £m	Total £m
Cost or deemed cost				
Balance at 1 July 2016	47.3	58.7	6.6	112.6
Additions	1.2	3.8	9.7	14.7
Reclassification to intangible assets	–	(1.0)	–	(1.0)
Transfer	2.2	6.9	(9.1)	–
Disposals	(0.6)	(3.7)	(0.5)	(4.8)
Effect of movements in exchange rates	1.6	1.7	0.2	3.5
Balance at 30 June 2017	51.7	66.4	6.9	125.0
Additions	4.7	10.6	7.8	23.1
Reclassification to intangible assets	–	(0.7)	(1.2)	(1.9)
Transfer	2.0	7.3	(9.3)	–
Disposals	(0.3)	(4.2)	–	(4.5)
Effect of movements in exchange rates	(1.6)	(1.3)	(0.2)	(3.1)
Balance at 30 June 2018	56.5	78.1	4.0	138.6
Depreciation and impairment losses				
Balance at 1 July 2016	17.2	33.6	–	50.8
Depreciation for the year	2.4	6.4	–	8.8
Reclassification to intangible assets	–	(0.7)	–	(0.7)
Disposals	(0.5)	(2.7)	–	(3.2)
Effect of movements in exchange rates	0.6	1.2	–	1.8
Balance at 30 June 2017	19.7	37.8	–	57.5
Depreciation for the year	2.5	7.9	–	10.4
Reclassification to intangible assets	–	(0.4)	–	(0.4)
Disposals	(0.3)	(3.9)	–	(4.2)
Effect of movements in exchange rates	(0.6)	(1.0)	–	(1.6)
Balance at 30 June 2018	21.3	40.4	–	61.7
Carrying amounts				
At 30 June 2018	35.2	37.7	4.0	76.9
At 30 June 2017	32.0	28.6	6.9	67.5
At 30 June 2016	30.1	25.1	6.6	61.8

16. Property, plant and equipment continued**Leased plant and machinery**

At 30 June 2018, plant, motor vehicles and equipment included assets held under finance leases with a carrying value of £7.6m (2017: £7.3m, 2016: £7.8m). The associated depreciation charge for the year was £1.9m (2017: £1.7m, 2016: £1.5m).

17. Equity accounted investees

We hold interests in several joint ventures and associates where we have significant influence.

Accounting policies

Joint ventures are entities over whose activities we have joint control, under a contractual agreement. The Group Financial Statements include the Group's share of profit or loss arising from joint ventures.

Associates are entities in which the Group has significant influence, but not control, over the financial and operating policies. The Group Financial Statements include the Group's share of the total recognised income and expense of associates on an equity accounted basis, from the date that significant influence commences until the date it ceases. When our share of losses exceeds our interest in an associate, we reduce the carrying amount to nil and stop recognising further losses, except to the extent that the Group has incurred legal or constructive obligations or made payments on an associate's behalf.

Under the equity method, investments in joint ventures or associates are initially recognised in the Group Balance Sheet at cost and adjusted thereafter to recognised the Group's share of the profit or loss and other comprehensive income of the joint ventures and associates. Related party transactions with the Group's joint ventures and associates primarily comprise products and services. As each arrangement is a separate legal entity and control rights are substantially equal with the other parties, no significant judgements are required.

The Group's share of profit after tax in its equity accounted investees for the year was £4.2m (2017: £6.2m).

The carrying value of the investment is reconciled as follows:

	2018 £m	2017 £m
Balance at 1 July	22.7	24.3
Share of post-tax profits of joint ventures and associates retained	4.2	6.2
Dividends received from Agroceres – PIC Genética de Suínos Ltda (Brazil)	(2.8)	(3.8)
Shareholder loan repayment	–	(3.0)
Addition	–	0.2
Disposal of Humei Pig Improvement Company (China)	–	(1.5)
Effect of other movements including exchange rates	(4.2)	0.3
Balance at 30 June	19.9	22.7

During the prior year, the Group injected further capital of £0.2m into Chitale Genus ABS (India) Private Ltd, which is its investment under a joint venture agreement with B.G. Chitale Dairies Private Ltd in India.

There are no significant restrictions on the ability of the joint ventures and associates to transfer funds to the parent, other than those imposed by the Companies Act 2006 or equivalent government rules within the joint venture's jurisdiction.

Related party transactions with joint ventures and associates

	Transaction value		Balance outstanding	
	2018 £m	2017 £m	2018 £m	2017 £m
Purchase of goods and services from joint ventures and associates	3.5	3.7	(1.3)	(0.3)

All outstanding balances with joint ventures and associates are priced on an arm's length basis and are to be settled in cash within six months of the reporting date. None of the balances are secured.

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17. Equity accounted investees continued

Summary financial information for equity accounted investees, adjusted for the Group's percentage ownership, is shown below:

Joint ventures and associates – Year ended 30 June 2018

Net assets	Ownership	Current assets £m	Non-current assets £m	Biological assets £m	Total assets £m	Current liabilities £m	Total liabilities £m	Net assets £m
Agroceres – PIC Genética de Suínos Ltda (Brazil)	49%	4.9	8.0	4.3	17.2	(2.8)	(2.8)	14.4
HY-CO Hybridschweine- Cooperations GmbH (Germany)	50%	0.3	–	–	0.3	(0.1)	(0.1)	0.2
Xianyang Yongxiang Agriculture Technology Co., Ltd.(China) ¹	49%	2.1	3.6	0.7	6.4	(2.2)	(2.2)	4.2
Chitale Genus ABS (India) Private Limited (India)	50%	0.4	1.0	–	1.4	(0.3)	(0.3)	1.1
		7.7	12.6	5.0	25.3	(5.4)	(5.4)	19.9

Income statement	Ownership	Revenue £m	Net IAS 41 valuation movement on biological assets £m	Expenses £m	Operating profit £m	Taxation £m	Profit after tax £m
Agroceres – PIC Genética de Suínos Ltda (Brazil)	49%	22.2	–	(16.0)	6.2	(1.5)	4.7
HY-CO Hybridschweine-Cooperations GmbH (Germany)	50%	0.7	–	(0.6)	0.1	–	0.1
Xianyang Yongxiang Agriculture Technology Co., Ltd. (China) ¹	49%	2.3	(0.5)	(2.4)	(0.6)	–	(0.6)
Chitale Genus ABS (India) Private Limited (India)	50%	0.3	–	(0.3)	–	–	–
		25.5	(0.5)	(19.3)	5.7	(1.5)	4.2

1 Classified as an associate.

Joint ventures and associates have a December year end, except Chitale Genus ABS (India) Private Limited, which has a March year end.

Joint ventures and associates – Year ended 30 June 2017

Net assets	Ownership	Current assets £m	Non-current assets £m	Biological assets £m	Total assets £m	Current liabilities £m	Total liabilities £m	Net assets £m
Agroceres – PIC Genética de Suínos Ltda (Brazil)	49%	5.0	10.4	4.4	19.8	(3.1)	(3.1)	16.7
HY-CO Hybridschweine- Cooperations GmbH (Germany)	50%	0.3	–	–	0.3	(0.2)	(0.2)	0.1
Xianyang Yongxiang Agriculture Technology Co., Ltd.(China) ¹	49%	2.2	3.9	1.0	7.1	(2.3)	(2.3)	4.8
Chitale Genus ABS (India) Private Limited (India)	50%	1.3	–	–	1.3	(0.2)	(0.2)	1.1
		8.8	14.3	5.4	28.5	(5.8)	(5.8)	22.7

17. Equity accounted investees continued

Income statement	Ownership	Revenue £m	Net IAS 41 valuation movement on biological assets £m	Expenses £m	Operating profit £m	Taxation £m	Profit after tax £m
Agroceres – PIC Genética de Suínos Ltda (Brazil)	49%	21.1	0.7	(15.2)	6.6	(1.4)	5.2
HY-CO Hybridschweine-Cooperations GmbH (Germany)	50%	1.7	–	(1.5)	0.2	–	0.2
Humei Pig Improvement Company (China)	50%	1.6	–	(1.6)	–	–	–
Xianyang Yongxiang Agriculture Technology Co., Ltd. (China) ¹	49%	3.8	(0.2)	(2.8)	0.8	–	0.8
Chitale Genus ABS (India) Private Limited (India)	50%	0.2	–	(0.2)	–	–	–
		28.4	0.5	(21.3)	7.6	(1.4)	6.2

¹ Classified as an associate.

Joint ventures and associates have a December year end, except Chitale Genus ABS (India) Private Limited which has a March year end.

18. Other investments

We hold a number of unlisted and listed investments, mainly comprising our strategic investment in Caribou Biosciences, Inc. and shares in listed entity National Milk Records plc ('NMR').

Accounting policy

Available for sale ('AFS') financial assets are non-derivatives that are either designated as AFS or are not classified as: (a) loans and receivables; (b) held-to-maturity; or (c) financial assets at fair value through the profit and loss.

AFS listed equity investments are stated at fair value. AFS unlisted equity investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost less any identified impairment losses at the end of each reporting period.

AFS investments carried at fair value

	2018 £m	2017 £m
Unlisted equity shares – Caribou Biosciences, Inc.	3.7	3.6
Unlisted equity shares – RenOVate Biosciences, Inc.	0.3	0.3
Listed equity shares – NMR	1.9	1.6
	5.9	5.5

In the prior year, as part of the NMR pension agreement, we acquired 2,120,000 ordinary shares in NMR.

We also invested US\$5.0m to acquire a strategic non-controlling interest of 5% in Caribou Biosciences, Inc. These shares are not held for trading and accordingly are classified as AFS.

19. Inventories

Our inventory primarily consists of bovine semen, raw materials and ancillary products.

Accounting policies

Inventory (excluding biological assets' harvest) is stated at the lower of cost and net realisable value. Cost is determined on the basis of weighted average costs and comprises direct materials and, where appropriate, direct labour costs and those overheads that have been incurred in bringing the inventories to their present location and condition.

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19. Inventories *continued*

For our biological assets accounting policies, see note 15.

	2018 £m	2017 £m
Biological assets' harvest classed as inventories	20.2	22.2
Raw materials and consumables	0.6	0.7
Goods held for resale	13.4	10.2
	34.2	33.1

20. Trade and other receivables

Our trade and other receivables mainly consist of amounts owed to us by customers and amounts we pay to our suppliers in advance.

Accounting policies

We state trade and other receivables at their amortised cost less any impairment losses.

	2018 £m	2017 £m
Trade receivables	73.9	73.7
Other debtors	5.3	5.4
Prepayments and accrued income	10.3	7.8
Other taxes and social security	1.5	1.9
	91.0	88.8

Trade receivables

The average credit period our customers take on the sales of goods is 58 days (2017: 59 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 (2017: nil).

At 30 June 2018, £55.4m (2017: £56.4m) of trade receivables were not yet due for payment.

Included in the Group's trade receivables balance, net of provision, are debtors with a carrying amount of £18.0m (2017: £17.3m) which are past due at the reporting date but which we have not provided for, as there has been no significant change in credit quality and we consider the amounts are recoverable. The Group does not hold any collateral over these balances. The average age of these receivables is 42 days (2017: 48 days).

Ageing of trade receivables that are past due and presented net of provisions that have been established:

	2018 £m	2017 £m
Days past due		
0-30 days	9.6	9.2
31-90 days	6.3	5.8
91-180 days	1.7	1.5
Over 180 days	0.4	0.8
	18.0	17.3

At 30 June 2018, trade receivables of £22.4m (2017: £21.7m) were past due but not impaired. The ageing of these receivables is as follows:

	2018 £m	2017 £m
Days past due		
0-30 days	9.6	9.2
31-90 days	6.4	5.9
91-180 days	2.4	2.0
Over 180 days	4.0	4.6
	22.4	21.7

20. Trade and other receivables *continued*

The Directors consider that the carrying amount of trade and other receivables approximates their fair value.

At 30 June 2018, trade receivables are shown net of an allowance for doubtful debts of £4.4m (2017: £4.4m).

Movement in the allowance for doubtful debts

	2018 £m	2017 £m
Balance at the start of the year	4.4	4.3
Impairment losses recognised	1.0	1.6
Amounts written off as uncollectible	(0.2)	(0.4)
Impairment losses reversed	(0.8)	(1.5)
Effect of movements in exchange rates	–	0.4
Balance at the end of the year	4.4	4.4

In determining the recoverability of a trade receivable, we consider any change in the receivable's credit quality from the date we initially granted credit up to the reporting date. The concentration of credit risk is limited, as our customer base is large and unrelated.

Receivables denominated in currencies other than Sterling: comprise £31.6m denominated in US Dollars (2017: £32.1m), £11.0m denominated in Euros (2017: £11.0m) and £29.8m denominated in other currencies (2017: £27.9m).

21. Cash and cash equivalents

We hold cash and bank deposits which have a maturity of three months or less, to enable us to meet our short-term liquidity requirements.

Accounting policies

Cash and cash equivalents comprise cash balances. Bank overdrafts that are repayable on demand form an integral part of our cash management and are included in interest-bearing loans and borrowings less than one year. We only include them in cash and cash equivalents in the statement of cash flows.

	2018 £m	2017 £m
Bank balances	29.1	26.5

The carrying amount of these assets approximates to their fair value.

Included within bank balances above is £11.4m (2017: £9.7m) which is subject to certain local restrictions, principally in China.

22. Trade and other payables

Our trade and other payables mainly consist of amounts we owe to our suppliers that have been invoiced or are accrued. They also include taxes and social security amounts due in relation to our role as an employer.

Accounting policies

Trade payables are not interest bearing and are stated at their nominal value.

	2018 £m	2017 £m
Trade payables	23.6	20.7
Other payables, accrued expenses and deferred income	53.7	49.0
Other taxes and social security	6.4	6.7
	83.7	76.4

Payables denominated in currencies other than Sterling comprise: £33.6m denominated in US Dollars (2017: £32.3m), £10.2m denominated in Euros (2017: £9.8m) and £18.9m denominated in other currencies (2017: £17.9m). The carrying values of these liabilities are a reasonable approximation of their fair values.

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23. Provisions

A provision is a liability recorded in the balance sheet, where there is uncertainty over the timing or amount that will be paid, and is therefore estimated. The main provisions we hold relate to contingent deferred consideration and share forfeiture.

Accounting policies

We recognise a provision in the balance sheet when an event results in the Group having a current legal or constructive obligation, and it is probable that we will have to settle the obligation through an outflow of economic benefits. If the effect is material, we discount provisions to their present value.

	Contingent deferred consideration £m	Share forfeiture £m	Other provisions £m	Total £m
Balance at 1 July 2016	–	–	1.2	1.2
Acquisition	5.1	–	–	5.1
Additional provision in the year	–	–	1.1	1.1
Utilisation of provision	–	–	(0.5)	(0.5)
Release of provision	–	–	(0.5)	(0.5)
Balance at 30 June 2017	5.1	–	1.3	6.4
Additional provision in the year	–	2.2	0.6	2.8
Utilisation of provision	(0.8)	–	(0.7)	(1.5)
Release of provision	(0.3)	–	(0.1)	(0.4)
Balance at 30 June 2018	4.0	2.2	1.1	7.3
			2018 £m	2017 £m
Current			2.8	2.7
Non-current			4.5	3.7
			7.3	6.4

Contingent deferred consideration of £4.0m relates to the prior year acquisition of Hermitage Genetics and is subject to certain conditions being met by the seller.

The share forfeiture provision of £2.2m relates to potential claims that could be made by untraced members over the next three years relating to the resale proceeds of shares that were identified during the year as being forfeited.

Other provisions mainly relate to legal (£0.9m) and environmental (£0.1m) provisions. The timing and cash flows associated with the majority of legal claims are expected to be less than one year. However, for some legal claims the timing of cash flows may be long term in nature.

24. Financial instruments

This note details our treasury management and financial risk management objectives and policies, as well as the Group's exposure and sensitivity to credit, liquidity, interest and foreign exchange rate risk, and the policies in place to monitor and manage these risks.

Financial risk management objectives

The Group's Corporate Treasury function provides services to the business, coordinates our access to domestic and international financial markets, and monitors and manages the financial risks relating to the Group's operations, through internal risk reports that analyse exposures by degree and magnitude of risks. These risks include market risk (including currency risk, fair value interest rate risk and price risk), credit risk, liquidity risk and cash flow interest rate risk.

We seek to minimise the effects of these risks by hedging them using derivative financial instruments. Our use of financial derivatives is governed by policies approved by the Board of Directors, which provide written principles on foreign exchange risk, interest rate risk, credit risk, the use of financial derivatives and non-derivative financial instruments, and the investment of excess liquidity. The Board of Directors regularly reviews our compliance with policies and exposure limits. The Group does not enter into or trade financial instruments, including derivative financial instruments, for speculative purposes.

Key financial risks and exposures are monitored through a monthly report to the Board of Directors, together with an annual Board review of corporate treasury matters.

24. Financial instruments continued

Financial risk

The principal financial risks our activities expose us to are the risks of changes in foreign currency exchange rates, interest rates and commodity prices. We use derivative financial instruments to manage our exposure to interest rate, foreign currency and commodity price risks, including:

- forward foreign exchange contracts, to hedge the exchange rate risk arising on the sale of goods and purchase of supplies in foreign currencies;
- interest rate swaps, to mitigate the risk of rising interest rates; and
- forward commodity contracts, to hedge commodity price risk.

Accounting policies

Financial instruments

Financial assets and liabilities, in respect of financial instruments are recognised on the Group's balance sheet when the Group becomes a party to the instrument's contractual provisions.

Financial liabilities and equity instruments

Financial liabilities and equity instruments issued by the Group are classified according to the substance of the contractual arrangements entered into and the definitions of a financial liability and an equity instrument. An equity instrument is any contract that provides a residual interest in the assets of the Group after deducting all of its liabilities and includes no obligation to deliver cash or other financial assets. The accounting policies adopted for specific financial liabilities and equity instruments are set out below.

Put option arrangements over non-controlling interest

The potential cash payments related to put options issued by the Group over the equity of subsidiary companies are accounted for as financial liabilities, when such options may only be settled by exchanging a fixed amount of cash or other financial asset for a fixed number of shares in the subsidiary.

The amount that may become payable under the option on exercise is initially recognised at present value within borrowings, with a corresponding charge directly to equity. The charge to equity is recognised separately as written put options over non-controlling interest, adjacent to non-controlling interest in the net assets of consolidated subsidiaries.

Such options are subsequently measured at amortised cost, using the effective interest rate method, in order to accrete the liability up to the amount payable under the option at the date at which it first becomes exercisable. The charge arising is recorded as a financing cost. If the option expires unexercised, the liability is derecognised, with a corresponding adjustment to equity.

Derivative financial instruments and hedging activities

The fair value of interest rate swaps is the estimated amount that we would receive or pay to terminate the swap at the balance sheet date, taking into account current interest rates and the creditworthiness of the swap counterparties.

The fair values of forward exchange contracts and forward commodity contracts are their quoted market price at the balance sheet date, which is the present value of the quoted forward price.

Cash flow hedges

Where a derivative financial instrument is designated as hedging the variability in cash flows of a recognised asset or liability, or a highly probable forecast transaction, we recognise the effective part of any gain or loss on the instrument directly in the Group Statement of Comprehensive Income. We recognise any ineffective portion of the hedge immediately in the Group Income Statement.

If we hedge a forecast transaction that subsequently results in our recognising a financial asset or liability, we recycle in the Group Income Statement the associated gains and losses that we had recognised in equity. We do this in the same period or periods that the asset or liability affects the Group Income Statement, which are the periods when we recognise the interest income or expense.

If we expect a hedged forecast transaction to occur but the hedging instrument has expired, been sold, terminated or exercised, or we have revoked the designation of the hedge relationship, then the cumulative gain or loss at that point remains in equity and we recognise it in accordance with the above policy when the transaction occurs. If we no longer expect the hedged transaction to take place, we immediately recognise in the Group Income Statement the cumulative unrealised gain or loss recognised in equity.

Net investment hedges

Where we have designated a derivative financial instrument as hedging the variability of the net assets of an overseas subsidiary, which arises from the spot or forward exchange rate translation risk associated with the subsidiary's functional currency, we recognise the effective part of any gain or loss on the instrument directly in the hedging reserve. Any ineffective portion of the hedge is recognised immediately in the Group Income Statement.

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24. Financial instruments continued

When a hedging instrument expires or is sold, terminated or exercised, or we revoke designation of the hedge relationship, the cumulative gain or loss at that point remains in equity until we dispose of the investment it relates to.

We only apply net investment hedge accounting in the Group Financial Statements.

Capital risk management

The Group manages its capital to ensure that Group entities can continue as going concerns, while maximising the return to shareholders by optimising our debt and equity balance. The Group's capital structure consists of debt, which includes the borrowings disclosed in note 25, cash and cash equivalents, and equity attributable to equity holders of the Parent, comprising issued capital, reserves and retained earnings, as disclosed in note 29.

Gearing ratio

The Group keeps its capital structure under review and monitors it monthly to ensure the gearing ratio remains below 60%. The Group is not subject to externally imposed capital requirements. The gearing ratio at the year end was as follows:

	2018 £m	2017 £m
Debt (see note 25)	137.6	138.1
Cash and cash equivalents (see note 21)	(29.1)	(26.5)
Net debt (see note 30)	108.5	111.6
Equity	419.1	402.1
Net debt to equity ratio	26%	28%

Debt is defined as long and short-term borrowings, as detailed in note 25.

Equity includes all capital and reserves of the Group attributable to equity holders of the Parent.

Categories of financial instruments

We have categorised financial instruments held at valuation into a three-level fair value hierarchy, based on the priority of the inputs to the valuation technique in accordance with IFRS 13. The hierarchy gives the highest priority to quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). If the inputs used to measure fair value fall within different levels of the hierarchy, we base the category level on the lowest priority level input that is significant to the fair value measurement of the instrument in its entirety. We have estimated the fair values of the Group's outstanding interest rate swaps by calculating the present value of future cash flows, using appropriate market discount rates, representing Level 2 fair value measurements as defined by IFRS 13. We have not categorised any financial instruments as Level 1 or Level 3.

	2018 Carrying value £m	2017 Carrying value £m
Financial assets		
Other investments	5.9	5.5
Trade receivables and other debtors, excluding prepayments (see note 20)	80.7	81.0
Cash and cash equivalents	29.1	26.5
Derivative instruments in non-designated hedge accounting relationships	0.3	1.3
Assets held for sale	0.2	0.3
Derivative instruments in designated hedge accounting relationships	2.5	0.1
Financial liabilities		
Trade and other payables, excluding other taxes and social security (see note 22)	(77.3)	(69.7)
Derivative instruments in designated hedge accounting relationships	(0.6)	(0.4)
Loans and overdrafts (see note 25)	(134.1)	(134.9)
Leasing obligations (see note 26)	(3.5)	(3.2)
Derivative instruments in non-designated hedge accounting relationships	(0.3)	(0.6)
Put option over non-controlling interest	(3.2)	(3.3)

There is no material difference between the carrying value and fair value.

24. Financial instruments *continued***Foreign currency risk management**

We undertake transactions denominated in foreign currencies.

The carrying amounts of the Group's foreign currency denominated monetary assets and monetary liabilities at the reporting date were as follows:

	Liabilities		Assets	
	2018 £m	2017 £m	2018 £m	2017 £m
US Dollar (including leases)	(92.9)	(106.2)	8.8	8.7
Euro	(11.9)	(12.1)	–	1.9
Brazilian Real	–	–	–	0.1
Chinese Yuan Renminbi	–	(1.9)	1.9	1.9

Foreign currency income statement sensitivity analysis

The Group is mainly exposed to movements in the US Dollar, Euro, Brazilian Real, Mexican Peso and Chinese Yuan Renminbi exchange rates.

The following table details the Group's sensitivity to a 10% increase and decrease in Sterling against these currencies. Ten percent is the sensitivity rate used when reporting foreign currency risk internally to key management and represents our assessment of a significant change in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the period end for a 10% change in foreign currency rates. It includes external loans, as well as loans to foreign operations within the Group where the loan is denominated in a currency other than the lender or borrower's currency. A positive number below indicates an increase in profit when Sterling weakens against the relevant currency. A strengthening of Sterling against the relevant currency would produce an equal but opposite reduction in profit, and the balances below would be negative.

	Increase in profit	
	2018 £m	2017 £m
10% currency movement		
Euro	0.9	1.0
US Dollar	1.7	2.0
Brazilian Real	1.0	0.9
Mexican Peso	1.2	1.2
Chinese Yuan Renminbi	0.8	0.9

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24. Financial instruments continued

Forward foreign exchange contracts

The Group's policy is to enter into forward foreign exchange contracts, to cover specific foreign currency payments and receipts. The following table details the forward foreign currency contracts outstanding as at the year end:

	Average exchange rate		Foreign currency	Contract value		Fair value	
	2018	2017		2018 £m	2017 £m	2018 £m	2017 £m
Outstanding contracts							
Buy DKK	8.40	–	DKK	19.5	–	(0.1)	–
Buy CNY	–	8.64	CNY	–	1.0	–	–
Sell CNY	8.90	–	CNY	2.2	–	–	–
Buy AUD	1.76	1.75	AUD	1.5	1.8	–	(0.1)
Sell PHP	71.4	–	PHP	0.5	–	–	–
Sell RUB	83.20	76.75	RUB	1.0	0.2	–	–
Sell EUR	–	1.14	EUR	–	0.6	–	–
Buy EUR	1.13	–	EUR	8.8	–	–	–
Sell PLN	4.79	4.79	PLN	0.3	0.3	–	–
Buy USD	1.33	–	USD	7.6	–	–	–
Buy EUR/Sell CHF	1.15	1.06	CHF	0.3	0.3	–	–
Buy USD/Sell COP	2,924	2,930	COP	0.6	0.2	–	–
Buy BRL/Sell USD	–	3.37	BRL	–	0.5	–	–
Buy PHP/Sell AUD	–	37.4	PHP	–	0.2	–	–
Buy USD/Sell CLP	–	659	CLP	–	0.1	–	–
Buy USD/Sell ARS	26.35	16.16	ARS	0.3	0.4	–	–
Buy USD/Sell CNY	6.42	6.81	CNY	1.0	0.3	–	–
Buy PHP/Sell USD	53.15	49.98	PHP	2.7	4.6	0.1	0.1
Buy CAD/Sell USD	1.30	1.32	CAD	1.0	0.4	–	–
Buy USD/Sell MXN	–	18.27	MXN	–	0.2	–	–
Buy USD/Sell EUR	1.18	1.14	EUR	1.0	0.6	–	–
Buy USD/Sell RUB	62.57	–	RUB	0.1	–	–	–
Buy USD/Sell INR	68.45	–	INR	1.2	–	–	–
Buy USD/Sell ZAR	13.72	13.04	ZAR	0.1	0.1	–	–
						–	–

Interest rate risk management

The Group is exposed to interest rate risk, as Group entities borrow funds at both fixed and floating interest rates. We manage this risk centrally, by maintaining an appropriate mix between fixed and floating rate borrowings, using interest rate swaps. We regularly review our hedging activities, to align with our interest rate views and defined risk appetite, thereby ensuring we apply optimal hedging strategies to minimise the adverse impact of fluctuations in interest expense through different interest rate cycles.

The Group's exposures to interest rates on financial assets and financial liabilities are detailed in the liquidity risk management section of this note.

Interest rate sensitivity analysis

We have determined the sensitivity analyses below, based on the Group's exposure to interest rates for both derivatives and non-derivative instruments, at the balance sheet date. For floating rate liabilities, we prepared the analysis assuming the liability outstanding at the balance sheet date was outstanding for the whole year. A 1.0% increase or decrease is used when reporting interest rate risk internally to key management and is our assessment of a significant change in interest rates.

If interest rates had been 1.0% higher or lower and all other variables were held constant, the Group's profit for the year ended 30 June 2018 would have decreased or increased by £0.3m (2017: decrease/increase by £0.5m). This impact is smaller than would otherwise be the case, due to our fixed rate hedging.

24. Financial instruments *continued***Interest rate swap contracts**

Under interest rate swap contracts, the Group agrees to exchange the difference between fixed and floating rate interest amounts, calculated on agreed notional principal amounts. These contracts enable us to mitigate the risk of changing interest rates on the cash flow exposures on the variable rate debt we hold. We determine the fair value of interest rate swaps at the reporting date by discounting the future cash flows, using the yield curves at the reporting date and the credit risk inherent in the contract. This fair value is disclosed below. The average interest rate is based on the outstanding balances at the end of the financial year.

Cash flow hedges

The following table details the notional principal amounts and remaining terms of interest rate swap contracts outstanding as at the reporting date:

	Average contract fixed interest rate		Notional principal amount		Fair value	
	2018 %	2017 %	2018 £m	2017 £m	2018 £m	2017 £m
Outstanding receive floating pay fixed contracts						
USD interest rate swaps						
Two to five years	1.04	1.10	83.3	84.7	2.3	1.2
GBP interest rate swaps						
Two to five years	0.73	0.51	35.0	20.0	0.2	0.1

The interest rate swaps settle on a quarterly basis. The corresponding floating rate on the interest rate swaps is three-month LIBOR. We settle the difference between the fixed and floating interest rate on a net basis.

Interest rate swap contracts that exchange floating rate interest amounts for fixed rate interest amounts are designated as cash flow hedges, to reduce our cash flow exposure resulting from variable interest rates on borrowings. The interest rate swaps and the interest payments on the loan occur simultaneously and we recognise the amount deferred in equity in profit or loss, over the period that the floating rate interest payments on debt affect profit or loss.

Commodity hedges

The Group hedges both feed and slaughter exposures by using the Chicago Mercantile Exchange lean hog, corn and soybean meal commodity futures.

	Average price		Notional principal amount		Fair value	
	2018 US\$	2017 US\$	2018 £m	2017 £m	2018 £m	2017 £m
Commodity hedge						
Open commodity contracts as at June 2018						
Lean hog futures	0.67	0.68	6.8	10.7	0.2	(0.1)
Corn	3.77	3.95	(3.0)	(2.2)	(0.1)	(0.2)
Soybean meal	353	314	(2.9)	(2.3)	(0.1)	(0.2)
			0.9	6.2	-	(0.5)

Credit risk management

Credit risk is the risk that a counterparty will default on its contractual obligations, resulting in financial loss to the Group. We have a policy of only dealing with creditworthy counterparties. We regularly monitor our exposure and the credit ratings of our counterparties, and the aggregate value of transactions concluded is spread amongst approved counterparties. Credit exposure on financial instruments is controlled by counterparty limits that the Board reviews and approves annually.

Trade receivables consist of a large number of customers, spread across diverse industries and geographical areas. We carry out ongoing credit evaluation of the financial condition of accounts receivable.

Liquidity risk management

The Board of Directors has ultimate responsibility for managing liquidity risk. We manage this risk by maintaining adequate reserves and banking facilities, by continuously monitoring forecast and actual cash flows, and by matching the maturity profiles of financial assets and liabilities.

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24. Financial instruments *continued*

Liquidity and interest risk tables

For non-derivative financial liabilities, see notes 25 and 26.

The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities, excluding trade payables and other creditors. We have drawn up the table based on the undiscounted cash flows of financial liabilities, using the earliest date on which we can be required to pay. The table includes both interest and principal cash flows.

	Weighted average effective interest rate %	Less than 1 month £m	1-3 months £m	3 months – 1 year £m	1-5 years £m	5+ years £m	Total £m
2018							
Variable interest rate instruments	2.8	3.4	11.4	4.1	139.1	–	158.0
2017							
Variable interest rate instruments	2.3	7.8	0.5	4.7	144.4	–	157.5

The following table details the Group's expected maturity for other non-derivative financial assets, excluding trade receivables and other debtors. We have drawn up this table based on the undiscounted contractual maturities of the assets, including interest we will earn on them, except where we expect the cash flow to occur in a different period.

	Weighted average effective interest rate %	Less than 1 month £m	1-3 months £m	3 months – 1 year £m	1-5 years £m	5+ years £m	Total £m
2018							
Variable interest rate instruments	0.66	29.1	–	–	–	–	29.1
2017							
Variable interest rate instruments	0.63	26.5	–	–	–	–	26.5

The Group has financing facilities with a total unused amount of £99.3m (2017: £73.6m) at the balance sheet date. We expect to meet our other obligations from operating cash flows and the proceeds of maturing financial assets. We expect to reduce the debt to equity ratio, as borrowings decrease through repayment from operating cash flows.

The following table details the Group's liquidity analysis for its derivative financial instruments. We have drawn up the table based on the undiscounted net cash outflows on derivative instruments that settle on a net basis and the undiscounted gross outflows on derivatives that require gross settlement. When the amount payable or receivable is not fixed, we have determined the amount disclosed by reference to the projected interest and foreign currency rates, as illustrated by the yield curves at the reporting date.

	Less than 1 month £m	1-3 months £m	3 months – 1 year £m	1-5 years £m	5+ years £m	Total £m
2018						
Interest rate swaps	–	–	0.5	2.0	–	2.5
2017						
Interest rate swaps	–	–	0.1	0.9	–	1.0

25. Loans and borrowings

The Group's borrowing for funding and liquidity purposes comes from a range of committed bank facilities.

Interest-bearing loans and borrowings

We initially recognise interest-bearing loans and borrowings at their fair value, less attributable transaction costs. After this initial recognition, we state them at amortised cost and recognise any difference between the cost and redemption value in the income statement over the borrowings' expected life, on an effective interest rate basis.

	2018 £m	2017 £m
Non-current liabilities		
Unsecured bank loans	120.7	127.2
Obligations under finance leases (see note 26)	2.1	1.8
	122.8	129.0
Current liabilities		
Unsecured bank loans and overdrafts	10.6	7.7
Obligations under finance leases (see note 26)	1.4	1.4
Other unsecured borrowings	2.8	–
	14.8	9.1
Total interest-bearing liabilities	137.6	138.1

Terms and debt repayment schedule

Terms and conditions of outstanding loans and overdrafts were as follows:

	Currency	Interest rate	2018 £m	2017 £m
Revolving credit facility and overdraft	GBP	1.5%	33.5	22.6
Revolving credit facility, term loan and overdraft	USD	3.3%	90.1	106.2
Revolving credit facility and overdraft	EUR	1.2%	0.9	–
Finance lease liabilities	USD	5.0%	3.5	3.2
Other unsecured bank borrowings	Other	1.0%	6.8	6.1
Other unsecured borrowings	USD	2.2%	2.8	–
Total interest-bearing liabilities			137.6	138.1

The above revolving credit facilities are unsecured. Information about the Group's exposure to interest rate and foreign currency risks is shown in note 24.

	2018 £m	2017 £m
Loans and borrowings (excluding finance leases) comprise amounts falling due:		
In one year or less or on demand	13.8	8.1
In more than one year but not more than two years	–	–
In more than two years but not more than five years	121.4	128.2
	135.2	136.3
Less: unamortised issue costs	(1.1)	(1.4)
	134.1	134.9
Current liabilities	(13.4)	(7.7)
Non-current liabilities	120.7	127.2

During the year, we exercised an accordion request, which increased our available credit facilities by £20m. At the balance sheet date, the Group's credit facilities comprised a £95m multi-currency revolving credit facility and a US\$165m revolving credit facility. £46m of the Group's credit facilities expire in February 2021. The remaining facilities will expire in February 2022.

As part of its interest rate strategy, the Group has entered into interest rate swaps to hedge floating LIBOR rates. As a result, bank loan and overdrafts include borrowings of US\$110m (£83.3m) fixed at 1.17% and GBP £35m fixed at 0.73%, excluding applicable bank margin.

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26. Finance lease liabilities

A finance lease is a commitment to make a payment in the future, primarily in relation to plant and machinery and motor vehicles.

Accounting policies

We classify leases as finance leases whenever the lease terms transfer substantially all the risks and rewards of ownership to us. All other leases are operating leases.

We recognise the assets we hold under finance leases at their fair value or, if lower, at the present value of the minimum lease payments, each of which we determine at the start of the lease. We include our corresponding liability in the balance sheet, as a finance lease obligation.

We apportion lease payments between finance charges and a reduction in our lease obligation, so we achieve a constant rate of interest on the remaining liability. We recognise finance charges directly in the income statement, unless they are directly attributable to qualifying assets, in which case we capitalise them in accordance with our general policy on borrowing costs.

Finance lease liabilities are payable as follows:

	Minimum lease payments 2018 £m	Interest 2018 £m	Principal 2018 £m	Minimum lease payments 2017 £m	Interest 2017 £m	Principal 2017 £m
Less than one year	1.4	0.1	1.5	1.4	0.1	1.5
Between one and five years	2.1	0.1	2.2	1.8	0.1	1.9
	3.5	0.2	3.7	3.2	0.2	3.4

Finance lease liabilities are secured on the assets to which they relate. There are no other restrictions imposed by the lessor. The fair value of the leases is approximately equal to the carrying amount.

27. 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 the Dalgety Pension Fund ('DPF') in the UK, which are defined benefit schemes. The assets of these funds are held separately from the Group's assets and are administered by trustees and managed professionally.

Accounting policies

Defined contribution pension schemes

A number of our employees are members of defined contribution pension schemes. We charge contributions to the income statement as they become payable under the scheme rules. We show differences between the contributions payable and the amount we have paid as either accruals or prepayments in the balance sheet. The schemes' assets are held separately from those of the Group.

Defined benefit pension schemes

The Group operates defined benefit pension schemes for some of its employees. These schemes are closed to new members and to further accrual. We calculate our net obligation separately for each scheme, by estimating the amount of future benefit that employees have earned, in return for their service to date. We discount that benefit to determine its present value and deduct the fair value of the plan's assets (at bid price). The liability discount rate we use is the market yield at the balance sheet date on high-quality corporate bonds, with terms to maturity approximating our pension liabilities. Qualified actuaries perform the calculations, using the projected unit method.

We recognise actuarial gains and losses in equity in the period in which they occur, through the Group Statement of Comprehensive Income. Actuarial gains and losses include the difference between the expected and actual return on scheme assets and experience gains and losses on scheme liabilities.

Genus and the other participating employers are jointly and severally liable for the MPF's obligations. We account for our section of the scheme and our share of any orphan assets and liabilities, and provide for any amounts we believe we will have to pay under our joint and several liability. The joint and several liability also means we have a contingent liability for the scheme's obligations that we have not accounted for.

Under the joint and several liability, we initially recognise any changes in our share of orphan assets and liabilities in the income statement. After this initial recognition, any actuarial gains and losses on the orphan assets and liabilities are recognised directly in equity through the Group Statement of Changes in Equity, in the period in which they occur.

27. Retirement benefit obligations continued**Retirement benefit obligations**

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.

	2018 £m	2017 £m
The Milk Pension Fund – Genus's share	24.2	30.4
The Dalgety Pension Fund	–	–
Other retirement benefit obligations and other unfunded schemes	9.7	10.5
Overall net pension liability	33.9	40.9

Overall, we expect to pay £7.5m (2018: £7.3m) in contributions to defined benefit plans in the 2019 financial year.

The defined benefit plans are administered by Trustee boards that are legally separated from the Group. The Trustee board of each pension fund consists of representatives who are employees, former employees or are independent from the Group. The boards of the pension funds are required by law to act in the best interest of the plan participants and are responsible for setting certain policies, such as investment and contribution policies, and for the governance of the fund.

The defined benefit pension schemes expose the Group to actuarial risks such as greater than expected longevity of members, lower than expected return on investments and higher than expected inflation, which may increase the plans' liabilities or reduce the value of their assets.

UK pensions are regulated by The Pensions Regulator, a non-departmental public body established under the Pensions Act 2004 and sponsored by the Department for Work and Pensions, operating within a legal regulatory framework set by the UK Parliament. The Pensions Regulator has statutory objectives set out in legislation, which include promoting and improving understanding of the good administration of work-based pensions, protecting member benefits and regulating occupational defined benefit and contribution schemes. The Pensions Regulator's statutory objectives and regulatory powers are described on its website at www.thepensionsregulator.gov.uk.

All defined benefit schemes are registered as an occupational pension plan with HMRC and are subject to UK legislation and oversight from The Pensions Regulator. UK legislation requires that pension schemes are funded prudently and valued at least every three years. Separate valuations are required for each scheme. Within 15 months of each valuation date, the plan Trustees and the Group must agree any contributions required to ensure that the plan is fully funded over time, on a suitably prudent measure.

Funding plans are individually agreed with the respective Trustees for each of the Group's defined benefit pension schemes, taking into account local regulatory requirements.

The Milk Pension Fund ('MPF')

The MPF was previously operated by the Milk Marketing Board and was also open to staff working for Milk Marque Ltd (the principal employer, now known as Community Foods Group Limited), National Milk Records plc, First Milk Ltd, hauliers associated to First Milk Ltd, Dairy Farmers of Britain Ltd (which went into receivership in June 2009) and Milk Link Ltd.

We have accounted for our section of the scheme and our share of any orphan assets and liabilities, which together represent approximately 86% of the MPF (2017: 85%). Although the MPF is managed on a sectionalised basis, it is a 'last man standing scheme', which means that all participating employers are jointly and severally liable for all of the fund's liabilities. With effect from 30 June 2013, Genus's remaining active members ceased accruing benefits in the fund and became deferred pensioners.

The most recent actuarial triennial valuation of the MPF was at 31 March 2015 and was carried out by qualified actuaries. The valuation has been agreed by the Trustees.

The principal actuarial assumptions adopted in the 2015 valuation were that:

- investment returns on existing assets would exceed fixed interest gilt yields by 1.1% per annum;
- Consumer Price Index ('CPI') price inflation is expected to be 0.9% per annum lower than Retail Price Index ('RPI') price inflation; and
- pensions in payment and pensions in deferment would increase in future in line with CPI price inflation, subject to various minimum and maximum increases.

At 31 March 2015, the market value of the fund's assets was £403m. This represented approximately 87% of the value of the uninsured liabilities, which were £465m at that date.

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27. Retirement benefit obligations continued

The deficit in the fund as a whole, by reference to the 31 March 2015 valuation, was £62m (of which Genus's notional share was £47m). This shortfall is being addressed by additional contributions from the participating employers. Under the Trustee prepared schedule of contributions, Genus is required to make deficit repair contributions of £5.6m per annum commencing 31 March 2017, and rising thereafter by 3.4% per annum until 31 August 2022, in addition to funding the scheme's operating expenses. Genus has assessed its additional pension liability under IFRIC 14 by reference to this schedule of contributions, resulting in an amount of £59.5m (2017: £19.6m) being recognised in the Group Statement of Comprehensive Income.

In the previous year, NMR withdrew from the MPF under a Flexible Apportionment Arrangement between NMR, Genus and the Trustees of the MPF. In return for the right to withdraw from the MPF, NMR made a one-off, lump sum cash payment of £10.1m to the MPF, equivalent to the undiscounted value of all NMR's future payments under the existing MPF recovery plan, which extends to March 2026. NMR also made a payment to Genus of £4.7m, with £1.4m being satisfied by the issue of NMR shares.

As a result of the NMR withdrawal, in the prior year Genus recognised £5.7m as an exceptional credit, with £4.5m (£4.7m payment net of fees) being received directly from NMR, and £1.2m from the MPF, reflecting the impact of NMR paying undiscounted amounts into the scheme.

Dalgety Pension Fund ('DPF')

The most recent actuarial valuation of the DPF was at 31 March 2015 and was carried out by qualified actuaries.

The principal actuarial assumptions adopted in the 2015 valuation were that investment returns on existing assets would be 4.1% per annum before retirement and 2.2% per annum after retirement and that the annual increase in pensions in payment would be 3.3% per annum.

The market value of the available assets at 31 March 2015 was £31.6m. The value of those assets represented approximately 101% of the value of the uninsured liabilities, which were £31.3m at 31 March 2015. Under the funding agreement, the Company will not have to make deficit repair contributions.

The disclosures required under IAS 19 have been calculated by an independent actuary, based on accurate calculations carried out as at 31 March 2015 and updated to 30 June 2018.

As at 30 June 2018, the DPF was in an overall net pension asset position of £8.2m. However, the Group does not have the unilateral right to this surplus and, therefore, in line with IFRIC 14 the recognition of this asset is restricted.

The Trustees of the DPF hold a £20.9m reserve against future unknown liabilities materialising. As the economic benefit to Genus of this amount is not certain, it is treated as a contingent asset.

In addition to the aggregate assets and liabilities disclosed, a bulk annuity policy was secured with an insurance company in July 1999, which matched the benefit entitlement of almost all of the fund's current and deferred pension liabilities at that time. The value of the policy and related liabilities at 30 June 2018 was £698m (2017: £708m).

Other defined benefit scheme in deficit

The Group operates a closed defined benefit scheme for a small number of former employees of the National Pig Development Company Limited. The total market value of scheme assets and liabilities at 30 June 2018, under the provisions of IAS 19, were £5.2m (2017: £5.2m) and £6.3m (2017: £6.7m), respectively.

Other unfunded schemes

When the Group acquired Sygen International plc, it also acquired three unfunded defined benefit schemes and an unfunded retirement health benefit plan, which it now operates for the benefit of the previous Group's senior employees and executives.

The scheme liabilities for the three unfunded defined benefit schemes amounted to £7.9m (2017: £8.1m), based on IAS 19's methods and assumptions. This amount is included within pension liabilities in the Group Balance Sheet. Interest on pension scheme liabilities amounted to £0.2m (2017: £0.2m).

The principal assumptions used to calculate the scheme liabilities were that the discount rate would be 2.90% (2017: 2.65%) and that inflation and pension payment increases would be 3.1% per annum (2017: 3.1%).

The scheme liabilities for the unfunded retirement health benefit plan amounted to £0.7m (2017: £0.9m), based on IAS 19's methods and assumptions. This amount is included within retirement benefit obligations in the Group Balance Sheet. Interest on plan liabilities amounted to £nil (2017: £nil).

The principal assumptions used to calculate the plan liabilities were that the discount rate would be 2.90% (2017: 2.65%) and that the long-term rate of medical expense inflation would be 7.1% (2017: 7.1%).

27. Retirement benefit obligations *continued***Aggregated position of defined benefit schemes**

	2018 £m	2017 £m
Present value of funded obligations (includes Genus's 86% share of the MPF (2017: 85%))	388.6	424.2
Present value of unfunded obligations	8.6	9.0
Total present value of obligations	397.2	433.2
Fair value of plan assets (includes Genus's 86% share of the MPF (2017: 85%))	(431.8)	(418.4)
Restrict recognition of asset (DPF)	9.0	6.5
Recognition of additional liability (MPF)	59.5	19.6
Recognised liability for defined benefit obligations	33.9	40.9

Plan assets consist of the following:

	2018 £m	2017 £m
Equities	78.9	90.4
Diversified growth funds	100.9	93.7
Liability driven investments	91.8	93.5
Gilts and corporate bonds	59.6	59.5
Cash	22.0	8.9
Other	78.6	72.4
	431.8	418.4

Each of the defined benefit schemes manages risks through a variety of methods and strategies, including equity protection, to limit the downside risk of falls in equity markets, as well as inflation and interest rate hedging.

Movement in the liability for defined benefit obligations

	2018 £m	2017 £m
Liability for defined benefit obligations at the start of the year	433.2	356.8
Benefits paid by the plans	(18.6)	(15.3)
Current service costs and interest	11.2	9.8
Actuarial gains recognised on fund liabilities arising from changes in demographic assumptions	(10.4)	–
Actuarial (gains)/losses recognised on fund liabilities arising from changes in financial assumptions	(22.0)	28.0
Actuarial losses recognised on fund liabilities arising from experience (other)	3.4	2.2
Recognition of additional liabilities due to increasing Genus's share of the MPF	–	51.5
Reclassified from accruals	0.5	–
Exchange rate adjustment	(0.1)	0.2
Liability for defined benefit obligations at the end of year	397.2	433.2

Movement in plan assets

	2018 £m	2017 £m
Fair value of plan assets at the start of the year	418.4	334.0
Administration expenses	(0.4)	(0.6)
Recognition of additional assets due to increasing Genus's share of the MPF	–	52.7
Contributions paid into the plans	7.3	7.2
Benefits paid by the plans	(18.6)	(15.3)
Interest income on plan assets	10.7	9.0
Actuarial gains recognised in equity	14.4	31.4
Fair value of plan assets at the end of the year	431.8	418.4

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

27. Retirement benefit obligations *continued*

Summary of movements in Group deficit during the year

	2018 £m	2017 £m
Deficit in schemes at the start of the year	(40.9)	(44.5)
Administration expenses	(0.4)	(0.6)
Exceptional gain on NMR withdrawal from the MPF	–	1.2
Contributions paid into the plans	7.3	7.2
Net pension finance cost	(1.0)	(1.2)
Actuarial gain recognised during the year	43.4	1.2
Movement in restriction of assets	(2.5)	0.3
Recognition of additional liability	(39.4)	(4.3)
Reclassified from accruals	(0.5)	–
Exchange rate adjustment	0.1	(0.2)
Deficit in schemes at the end of the year	(33.9)	(40.9)

Amounts recognised in the Group Income Statement

	2018 £m	2017 £m
Administrative expenses	0.4	0.6
Interest obligation	11.2	9.8
Interest income on plan assets	(10.7)	(9.0)
Interest on additional liability	0.5	0.4
Exceptional gain on NMR withdrawal from the MPF	–	(1.2)
	1.4	0.6

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

	2018 £m	2017 £m
Administrative expenses	0.4	0.6
Exceptional gain on NMR withdrawal from the MPF	–	(1.2)
Net finance charge	1.0	1.2
	1.4	0.6

Actuarial (gains)/losses recognised in the Group Statement of Comprehensive Income

	2018 £m	2017 £m
Cumulative loss at the start of the year	82.4	79.4
Actuarial gain recognised during the year	(43.4)	(1.2)
Movement in restriction of assets	2.5	(0.3)
Recognition of additional liability	39.4	4.3
Exchange rate adjustment	(0.1)	0.2
Cumulative loss at the end of the year	80.8	82.4

27. Retirement benefit obligations continued**Actuarial assumptions and sensitivity analysis**

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

	2018	2017
Discount rate	2.90%	2.65%
CPI	1.95%	2.05%
RPI	3.05%	3.15%

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 2018, the mortality tables used are 97% of the S2NA tables, with birth year and 2017 CMI projections with a smoothing parameter of $S_k = 7.5$, subject to a long-term rate of improvement of 1.25% for males and females (2017: the mortality tables used are 97% of the S2NA tables, with birth year and 2014 CMI projections, subject to a long-term rate of improvement of 1.25% for males and females).

The following table shows the assumptions used for all schemes and illustrates the life expectancy of an average member retiring at age 65 at the balance sheet date and a member reaching age 65 in 20 years' time.

		2018 Years	2017 Years
Retiring at balance sheet date at age 65	Male	22.4	23.0
	Female	24.6	25.2
Retiring at age 65 in 20 years' time	Male	23.8	24.7
	Female	26.1	27.0

Duration of benefit obligations

The weighted average duration of the defined benefit obligations at 30 June 2018 was 17.3 years (2017: 17.4 years).

Sensitivity analysis

Measurement of the Group's defined benefit obligation is sensitive to changes in certain key assumptions. The sensitivity analysis below shows how a reasonably possible increase or decrease in a particular assumption would, in isolation, result in an increase or decrease in the present value of the defined benefit obligation as at 30 June 2018.

	Discount rate		Rate of inflation		Life expectancy	
	Decrease by 0.25% £m	Increase by 0.25% £m	Decrease by 0.25% £m	Increase by 0.25% £m	Decrease by 1 year £m	Increase by 1 year £m
Increase/(decrease) in present value of defined obligation	15.7	(14.4)	(10.7)	11.4	(17.1)	17.1

The sensitivity analysis may not be representative of an actual change in the defined benefit obligation, as it is unlikely that changes in assumptions would occur in isolation from one another.

The sensitivities assume the funds' assets remain unchanged. However, in practice changes in interest rates and inflation will also affect the value of the funds' assets. The funds' investment strategy aims to hold matching assets which should move broadly in line with the liabilities of the funds, to protect partially against changes in interest rates and inflation.

This sensitivity analysis has been prepared using the same method adopted when adjusting results of the latest funding valuation to the balance sheet date. This is the same approach adopted in previous periods.

The history of experience adjustment is as follows:

	2018 £m	2017 £m	2016 £m	2015 £m	2014 £m
Present value of the defined benefit obligation	397.2	433.2	356.8	386.1	367.8
Fair value of plan assets	(431.8)	(418.4)	(334.0)	(329.2)	(314.6)
Restrict recognition of asset and recognition of additional liability	68.5	26.1	21.7	6.2	5.0
Deficit in the plans	33.9	40.9	44.5	63.1	58.2
Experience adjustments arising on plan liabilities (%)	7.1	7.1	5.3	4.9	2.9
Experience adjustments arising on plan assets (%)	2.8	7.6	4.1	3.7	4.9

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28. Share-based payments

We have a number of share plans used to award shares to Directors and senior management as part of their remuneration. To record the cost of these, a charge is recognised over the vesting period in the Consolidated Income Statement, based on the fair value of the award on the date of grant.

Accounting policies

We recognise the fair value of share awards and options granted as an employee expense, with a corresponding increase in equity. We measure the fair value at the grant date and spread it over the vesting period of each option. We use a binomial valuation model to measure the fair value of options and a Black-Scholes valuation model to measure the fair value of share awards. We adjust the amount we recognise as an expense, to reflect the estimated performance against non-market related conditions and the number of share awards and options that actually vest at the end of the vesting period.

The Group recognised a total share-based payment expense of £5.4m (2017: £4.6m), including National Insurance contributions of £0.8m (2017: £1.0m).

Share awards

There were 980,421 conditional share awards outstanding at 30 June 2018. These conditional shares were awarded to Executive Directors and senior management under the 2014 Performance Share Plan on 20 November 2014, 14 September 2015, 14 September 2016 and 13 September 2017. In accordance with the plan's terms, participants have received a conditional annual award of shares or nil cost option awards which will normally vest after three years, with the proportion of the award vesting depending on growth in the Group's adjusted earnings per share. Further details of the plan's performance conditions are given in the Directors' Remuneration Report.

In the year ended 30 June 2018, 336,688 awards were granted on 13 September 2017, with an aggregate fair value of £6,522,000. The fair value of services received in return for share awards granted is based on the fair value of share awards granted, measured using a Black-Scholes valuation model. At the date of grant, the fair value of a share awarded was £19.37, based on an expected dividend yield of 1.19%.

	Number of awards 2018	Number of awards 2017
Outstanding at the start of year	1,089,391	1,122,448
Exercised during the year	(336,949)	(94,882)
Forfeited during the year	(108,709)	(243,030)
Granted during the year	336,688	304,855
Outstanding at 30 June	980,421	1,089,391
Exercisable at 30 June	9,986	31,026

Bonus and restricted stock share awards

In addition to the outstanding share awards above, there were 128,843 bonus and restricted stock share awards outstanding at 30 June 2018. The bonus shares were awarded to Executive Directors and senior management as part of the compulsory deferred bonus, and restricted stock share awards were granted to senior management in connection with recruitment. In accordance with the awards' terms, participants have received a conditional annual bonus award of shares or nil cost option awards, which will normally vest between one and three years, after award, providing the participant is employed by the Group at that time.

In the year ended 30 June 2018, 49,187 bonus share awards were granted on 13 September 2017, with an aggregate fair value of £953,000, and 12,017 restricted stock share awards were granted in total on 29 September 2017, with an aggregate fair value of £211,000.

	Number of awards 2018	Number of awards 2017
Outstanding at the start of year	102,731	68,870
Exercised during the year	(35,092)	(12,153)
Forfeited during the year	–	(1,700)
Granted during the year	61,204	47,714
Outstanding at 30 June	128,843	102,731
Exercisable at 30 June	–	–

28. Share-based payments *continued***Share options**

On 12 August 2004, the Group established a share option programme that entitles key management and other senior employees to purchase shares in the Company. Further grants on similar terms were offered to these employee groups as set out below. The terms and conditions of the grants are as set out below. All options are to be settled by physical delivery of shares and meet the criteria for being treated as equity settled.

Employees entitled	Grant date	Number of instruments	Vesting conditions	Option exercise price	Contractual life of options
2004 Company share plan	19 September 2008	5,775	Exercisable	775.67p	10 years
2004 Company share plan	15 September 2009	10,051	Exercisable	654.50p	10 years
2004 Company share plan	10 September 2010	20,723	Exercisable	729.83p	10 years
2004 Company share plan	9 September 2011	32,647	Exercisable	977.83p	10 years
2004 Company share plan	7 September 2012	36,185	Exercisable	1,334.00p	10 years
2004 Company share plan	26 September 2013	40,447	Exercisable	1,413.00p	10 years
Total share options		145,828			

The number and weighted average exercise prices of share options are as follows:

	Weighted average exercise price 2018	Number of options 2018	Weighted average exercise price 2017	Number of options 2017
Outstanding at the start of year	1,118p	223,365	1,132p	396,971
Forfeited during the year	703p	(8,199)	1,351p	(17,470)
SAR effected during the year	1,232p	(38,493)	1,215p	(87,296)
Exercised during the year	1,078p	(30,845)	1,092p	(68,840)
Outstanding at 30 June	1,121p	145,828	1,118p	223,365
Exercisable at 30 June	1,121p	145,828	1,118p	223,365

The options at 30 June 2018 had a weighted average remaining contractual life of 3.4 years (2017: 4.4 years). No share options were granted during the year (2017: nil). The weighted average share price at the date of exercise during the year was £20.95 (2017: £19.45).

29. Capital and reserves

Called up share capital is the number of shares in issue at their par value. A number of shares were issued in the year, in relation to employee share schemes.

Accounting policies

Equity instruments issued by the Group are recorded at the amounts of the proceeds received, net of direct issuance costs.

Own shares

We include the transactions, assets and liabilities of the Group-sponsored Qualifying Employee Share Ownership Trust ('QUEST') in the Group Financial Statements. In particular, the trust's purchases of the Company's shares are deducted from shareholders' funds until they vest unconditionally with employees.

Share capital

	2018 Number	2017 Number	2018 £m	2017 £m
Issued and fully paid				
Ordinary shares of 10 pence	61,542,467	61,161,622	6.2	6.1

The holders of ordinary shares are entitled to receive dividends, as declared from time to time.

The movement in share capital for the period was as follows:

	2018 Number	2017 Number	2018 £m	2017 £m
Issued under the Executive Share Option Plan	30,845	68,840	–	–
Issued to Employee Benefits Trust	350,000	80,079	–	–
	380,845	148,919	–	–

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29. Capital and reserves continued

Shares issued under the Executive Share Option Plans were issued at option prices as follows:

	2018 Number	Price (pence)	2017 Number	Price (pence)
Executive Share Option Plan				
	2,721	582.00	1,984	582.00
	2,970	776.00	2,847	776.00
	3,268	654.50	2,434	654.50
	2,034	729.83	8,065	729.83
	4,580	977.83	24,139	977.83
	4,145	1,334.00	9,206	1,334.00
	11,127	1,413.00	20,165	1,413.00
	30,845		68,840	

Reserve for own shares

The Company's shares are held by a QUEST, which is an employee benefit trust established to facilitate the operation of our long-term incentive scheme for senior management. The reserve amount represents the deduction in arriving at shareholders' funds for the consideration the trust paid for the Company's shares, which had not vested unconditionally at the balance sheet date. The number and market value of the ordinary shares held by the employee benefit trust and the QUEST were:

	2018 Number	2017 Number	2018 £m	2017 £m
Shares allocated but not vested	87,265	70,272	2.3	1.3
Unallocated shares	92,334	92,334	2.4	1.6
	179,599	162,606	4.7	2.9

The shares have a nominal value of £17,960 (2017: £16,261).

Translation reserve

The translation reserve comprises all foreign currency differences arising from translating the financial statements of our foreign operations.

The Group uses foreign currency denominated borrowings as a hedge against the translation exposure on the Group's net investment in overseas companies. Where the hedge is fully effective at hedging the variability in the net assets of such companies caused by changes in exchange rates, the changes in value of the borrowings are recognised in the Consolidated Statement of Comprehensive Income and accumulated in the hedging and translation reserves. The ineffective part of any change in value caused by changes in exchange rates is recognised in the Consolidated Income Statement.

Hedging reserve

The hedging reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedging instruments, net of taxation.

Hedging and translation reserves

	Hedging reserve £m	Translation reserve £m
Balance at 30 June 2016	(0.6)	37.5
Exchange differences on translation of overseas operations	–	8.6
Loss recognised on net investment hedges	–	(2.7)
Loss recognised on cash flow hedges – interest swaps	2.1	–
Income tax related to net gains recognised in other comprehensive income	(0.4)	(4.2)
Balance at 30 June 2017	1.1	39.2
Exchange differences on translation of overseas operations	–	(22.4)
Loss recognised on net investment hedges	–	1.3
Gain recognised on cash flow hedges – interest swaps	1.1	–
Income tax related to net gains recognised in other comprehensive income	(0.2)	2.4
Balance at 30 June 2018	2.0	20.5

30. Notes to the cash flow statement

	2018 £m	2017 £m
Profit for the year	41.6	34.3
Adjustment for:		
Net IAS 41 valuation movement on biological assets	28.7	1.1
Amortisation of acquired intangible assets	9.5	8.7
Share-based payment expense	5.4	4.6
Share of profit of joint ventures and associates	(4.2)	(6.2)
Finance costs (net)	4.6	3.7
Income tax expense	(33.8)	6.4
Exceptional items	5.9	2.5
Adjusted operating profit from continuing operations	57.7	55.1
Depreciation of property, plant and equipment	10.4	8.8
(Profit)/loss on disposal of plant and equipment	(0.1)	0.2
Amortisation of intangible assets	4.3	2.5
Adjusted earnings before interest, tax, depreciation and amortisation	72.3	66.6
Exceptional item cash	(4.9)	(5.4)
Other movements in biological assets and harvested produce	(1.9)	(5.7)
Increase in provisions	1.7	0.1
Additional pension contributions in excess of pension charge	(6.9)	(6.6)
Other	(2.0)	(0.9)
Operating cash flows before movement in working capital	58.3	48.1
(Increase)/decrease in inventories	(4.2)	1.4
Increase in receivables	(5.7)	(9.0)
Increase in payables	9.9	5.8
Cash generated by operations	58.3	46.3
Interest received	0.2	0.8
Interest and other finance costs paid	(3.9)	(3.1)
Cash flow from derivative financial instruments	0.2	0.6
Income taxes paid	(11.6)	(10.0)
Net cash from operating activities	43.2	34.6

Analysis of net debt

	At 1 July 2017 £m	Net cash flows £m	Foreign exchange £m	Non-cash movements £m	At 30 June 2018 £m
Cash and cash equivalents	26.5	3.3	(0.7)	–	29.1
Interest-bearing loans – current	(7.7)	(2.6)	0.1	(3.2)	(13.4)
Obligation under finance leases – current	(1.4)	2.2	–	(2.2)	(1.4)
	(9.1)	(0.4)	0.1	(5.4)	(14.8)
Interest-bearing loans – non-current	(127.2)	4.7	1.8	–	(120.7)
Obligation under finance lease – non-current	(1.8)	–	–	(0.3)	(2.1)
	(129.0)	4.7	1.8	(0.3)	(122.8)
Net debt	(111.6)	7.6	1.2	(5.7)	(108.5)

Included within non-cash movements is £5.3m in relation to other unsecured borrowings and new finance leases.

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31. Operating leases

The Group has entered into non-cancellable commercial arrangements on certain properties, plant, motor vehicles and equipment.

Accounting policies

For operating leases, we charge the rentals payable, and any incentives we receive to enter into an operating lease, to the income statement on a straight-line basis over the lease term.

Total of future minimum lease payments under non-cancellable operating leases which expire within:

	2018 £m	2017 £m
Less than one year	2.1	2.7
Between one and five years	12.4	10.7
More than five years	6.3	5.8
	20.8	19.2

The leases have various terms and renewal rights. There are no other restrictions imposed by these lease agreements.

32. Capital and other commitments

At 30 June 2018, outstanding contracted capital expenditure amounted to £1.8m and all related to the purchase of property, plant and equipment (2017: £4.9m).

A software agreement was signed on 23 June 2017, with a minimum five-year term, with an annual cost of £0.8m.

33. 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 27 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% (2017: 85%) 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 total deficit of the MPF from the most recent triennial valuation can be found in note 27.

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. Further information can be found in note 11.

At 30 June 2018, we had entered into bank guarantees totalling £1.0m.

34. Directors and key management compensation

This note details the total amounts earned by the Company's Directors and members of the Executive Committee.

	2018 £m	2017 £m
Salaries and short-term employee benefits	7.0	6.1
Post-employment benefits	0.3	0.3
Share-based payment expense	3.4	2.6
	10.7	9.0

Directors

Further details of Directors' compensation are included in the Directors' Remuneration Report.

Other transactions with key management personnel

Other than remuneration, there were no transactions with key management personnel.

35. Group entities

In accordance with section 409 of the Companies Act 2006, a list of subsidiaries and joint ventures and associates as at 30 June 2018 is set out below. All subsidiary undertakings are subsidiary undertakings of their immediate parent undertaking(s), unless otherwise indicated.

Nature of business

Bovine

Name of undertaking	Registered address	Country of incorporation	Direct/indirect Group interest	Share class	% of share capital/voting rights held by Group companies
ABS Argentina S.A.	A.Castellanos 1169, (3080) Esperanza, Sante Fe, Argentina	Argentina	Direct	ARS1 ordinary	100%
ABS Chile Limitada	Avenida del Parque #4161 office #601, Huechuraba, Santiago, Chile	Chile	Direct	CLP1 common Stock	100%
ABS Genetics South Africa (Pty) Ltd	Prestige Park Block B, Unit No 5B, Pastore Street, Durbanville Industrial Park, Durbanville, 7550, South Africa	South Africa	Indirect	ZAR1 ordinary	100%
ABS Global (Canada) Inc.	1525 Floradale Road, Elmira ON N3B 2Z1, Canada	Canada	Indirect	CAD1 ordinary	100%
ABS Global, Inc.	1525 River Road, De Forest WI 53532, United States	United States	Indirect	USD0.01 common	100%
ABS Italia S.r.l.	Via Bastida nr. 6, loc. Cavatigozzi, 26020, Cremona, Italy	Italy	Indirect	€1 Quota	100%
ABS México, S.A. de C.V.	Kansas No. 2028, Quintas Campestre, 31214, Chihuahua, Chih., Mexico	Mexico	Direct	MXN10 class 1 MXN10 class 2	100%
ABS Progen Ireland Limited	Suite 6, Rineanna House, Shannon Free Zone, Co. Clare, Ireland	Ireland	Indirect	€1.25 ordinary	100%
Bovec SASU	69 Chemin des Molières, 69210, Lentilly, France	France	Indirect	€10 ordinary	100%
Chitale Genus ABS (India) Private Limited	Amar Neptune, Office No.406, off Baner Road, S. No.6/1/1, Village Baner, Tal. Haveli, Pune, Pune, Maharashtra, India	India	Indirect	INR100 ordinary	50% ¹
De Novo Genetics LLC	1286 Oriole Drive, New Albin IA 52160, United States	United States	Indirect	No par value LLC units	51%
Genus ABS Colombia SAS	Avenida Carrera 70, No. 105 – 51, Bogota, Colombia	Colombia	Indirect	COP10,000 ordinary	100%
Genus Australia Pty Ltd	2 Fleet Street, Somerton VIC 3062, Australia	Australia	Indirect	No par value ordinary	100%
Genus (Beijing) International Trade Co., Ltd.	B1608, Lucky Tower, East5 3rd Ring Road, Chaoyang District, Beijing, 100027, China	China	Indirect	No par value common stock	100%
Genus Breeding India Private Limited	Amar Neptune, Office No.406, off Baner Road, S. No.6/1/1, Village Baner, Tal. Haveli, Pune, Pune, Maharashtra, India	India	Indirect	INR1 ordinary	100%
Genus Breeding Limited (01192037) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Direct	£1 ordinary	100%
“Genus Ukraine” LLC	Pidlisna str., 1, KYIV 03164, Ukraine	Ukraine	Indirect	No par value common stock	100%
GIFCO (Ireland) Designated Activity Company	Suite 6, Rineanna House, Shannon Free Zone, Co. Clare, Ireland	Ireland	Indirect	USD1 ordinary	100%
Inimex Genetics Limited (01315335) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
In Vitro Brasil México, S.A. de C.V.	Plaza Comercial Punto Colorines, Boulevard Independencia #746, Interior 6, CP. 27140, Cidade Torreon – Estado, Coahuila, Mexico	Mexico	Indirect	MXN1 ordinary	99%

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35. Group entities continued

Name of undertaking	Registered address	Country of incorporation	Direct/indirect Group interest	Share class	% of share capital/voting rights held by Group companies
In Vitro Brasil Ltda.	Goiás Street, 1.840, Santa Maria, City of Ueraba – Minas Gerais, 38.050-060, Brazil	Brazil	Indirect	No par value common stock	100%
In Vitro Colombia S.A.S.	Calle 51, N°71A – 18 Apto 101, Barrio Normandia, Bogota DC, Colombia	Colombia	Indirect	COP1 common	51%
In Vitro Russia LLC	188671, Distrito De Leningrado Região De Vsevolojkiy, Vilarejo De Lepсар, Russian Federation	Russia	Indirect	RUB1 ordinary	50%
IVB USA, Inc.	1525 River Road, De Forest WI 53532, United States	United States	Indirect	USD0.001 common	100%
Pecplan ABS Imp. e Exp. Ltda.	Rod. BR 050 Km 196 + 150metros, Zona Rural, Delta, MG – 38108-000, Brazil	Brazil	Indirect	BRL1 ordinary	100%
St Jacobs Animal Breeding Corp.	1525 River Road, De Forest WI 53532, United States	United States	Indirect	No par value common stock	100%
In Vitro Mozambique, Limitada	Avenue Mao Tse Tung, n° 162 – Provincia da Zambezia, Quelimane – Moçambique, Mozambique	Mozambique	Indirect	MZN1 ordinary	80%
Zitery S.A	Maximo Tajes 7189, Uruguay	Uruguay	Indirect	UYU0.54 provisional certified registered UYU1.00 registered	100%

Nature of business

Porcine

Name of undertaking	Registered address	Country of incorporation	Direct/indirect Group interest	Share class	% of share capital/voting rights held by Group companies
Agricola PIC Andina Limitada	Autopista Los Libertadores Km39.5, Chacabuco, Colina, Santiago, Chile	Chile	Indirect	CLP1 common stock	100%
Agrocere PIC Genética de Suínos Ltda	Rua 1 JN, n° 1411, Sala 16 – Jardim Novo, Rio Claro/SP – CEP, 13.502-741, Brazil	Brazil	Indirect	BRL1 ordinary	49% ¹
Agrocere PIC Suínos Ltda	Rua 1 JN, n° 1411, Sala 17 – Jardim Novo, Rio Claro/SP – CEP, 13.502-741, Brazil	Brazil	Indirect	BRL1 ordinary	49% ¹
Birchwood Genetics, Inc.	465 Stephens Road, West Manchester OH 45382, United States	United States	Indirect	No par value ordinary	100%
Genetiporc International Minnesota, LLC	100 BlueGrass Commons Blvd, Suite 2200, Hendersonville, TN 37075 United States	United States	Indirect	No par value ordinary	100%
Génétiporc México, S.A. de C.V.	Wenceslao de la Barquera No. 7, Col. Villas del Sur, 76040 Queretaro, Queretaro, Mexico	Mexico	Indirect	MXN1 ordinary	100%
Genetiporc USA, LLC	100 BlueGrass Commons Blvd, Suite 2200, Hendersonville, TN 37075 United States	United States	Indirect	USD100 LLC units	100%
Genus China Limited Company	Office 1106, Ramada Plaza, 509 Caobao Road, Xuhui District, Shanghai, 200233, China	China	Indirect	No par value common stock	100%

35. Group entities continued

Name of undertaking	Registered address	Country of incorporation	Direct/indirect Group interest	Share class	% of share capital/voting rights held by Group companies
Hermitage Genetics Designated Activity Company	Riverside One, Sir John Rogerson's Quay, Dublin 2, Ireland	Ireland	Indirect	€1.27 ordinary €1.27 redeemable preference shares	100%
HY-CO Hybridschweine-Cooperations GmbH	Tegelberg 19-21, 24576 Bad Bramstedt, Germany	Germany	Indirect	No par value common stock	50% ¹
PIC Genetics LLC	79 Narodnyy Boulevard, 308000, Belgorod, Russian Federation	Russia	Indirect	RUB1 ordinary	100%
Morganite Investments Limited	Riverside One, Sir John Rogerson's Quay, Dublin 2, Ireland	Ireland	Indirect	€1 ordinary	100%
PIC (Zhangjiagang) Pig Improvement Co., Ltd.	Office 1210, International Finance Tower, 20 Jingang Road, Zhangjiagang Bonded Zone, Zhangjiagang City, Jiangsu Province, China	China	Indirect	USD1 ordinary	100%
PIC Andina SpA	Avenida del Parque #4161 office #601, Huechuraba, Santiago, Chile	Chile	Indirect	USD65.449 ordinary	100%
PIC Andina Venezuela S.A.	5TA. Avenida De La Urbanización San Jacinto, Residencias Ambar 1, Apto. E-2-A, Maracay, Estado Aragua, Venezuela, (Bolivarian Republic of)	Venezuela	Indirect	VEF1 ordinary	100%
PIC Canada Ltd.	Borden Ladner Gervais LLP, 1900-520, 3rd Avenue, S.W., Calgary, Alberta T2P OR3, Canada	Canada	Indirect	CAD1 ordinary	100%
PIC France SA	69 Chemin des Molières, 69210, Lentilly, France	France	Indirect	€17 ordinary	100%
PIG Datendienst GmbH	Ratsteich 31, 24837 Schleswig, Germany	Germany	Indirect	No par value common stock	50% ¹
Pig Improvement Company de México, S. de R.L. de C.V.	Wenceslao de la Barquera No.7, Col. Villas del Sur, 76040 Queretaro, Queretaro, Mexico	Mexico	Indirect	No par value common stock	100%
PIG Improvement Company Deutschland GmbH	Jathostraße 11a, D-30163 Hannover, Germany	Germany	Indirect	No par value common stock	100%
Pig Improvement Company España, S.A.	C/Pau Vila, 22 2º puerta 6, 08174 Sant Cugat del Valles, Barcelona, Spain	Spain	Indirect	€25 ordinary	100%
Pig Improvement Company UK Limited (00716304) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£0.10 ordinary	100%
PIC Italia S.r.l.	Strada dei Loggi 22, 06135, Ponte San Giovanni, Perugia, Italy	Italy	Indirect	€1 ordinary	85%
PIC Philippines, Inc.	Unit 2101/2102, 21st Floor Jollibee Plaza, F. Ortigas, Jr. Rd., Ortigas Center, Pasig City, 1605, Philippines	Philippines	Indirect	PHP100 ordinary	100%
PIC Polska Sp. z o.o.	ul. Gwiazdzista 7 lok.2, 01-651, Warszawa, Poland	Poland	Indirect	PLN1,000 ordinary	100%
PIC Romania S.R.L.	PIC Romania SRL, 8, Caimatei Street, Sector 2, Bucharest, Romania	Romania	Indirect	RON2,983.10 ordinary	100%
PIC USA, Inc.	100 BlueGrass Commons Blvd, Suite 2200, Hendersonville, TN 37075 United States	United States	Indirect	USD1 ordinary	100%
RenOVate Biosciences, Inc.	3500 South Dupont Highway, Dover, Delaware 19901, United States	United States	Direct	USD0.001 series seed preferred	50%
Reprodutores PIC, Lda	Rua Sampaio e Pina, no. 58, 2 esquerdo 1070-250, Lisboa, Portugal	Portugal	Indirect	No par value common stock	100%

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

35. Group entities continued

Name of undertaking	Registered address	Country of incorporation	Direct/indirect Group interest	Share class	% of share capital/voting rights held by Group companies
Shaanxi PIC Pig Improvement Co., Ltd.	Room 2008, Unit 1, Building 1, Block Saigao, Weiyang Road, Xi'an Economic and Technological Development Zone, Xi'an City, Shaanxi Province, China	China	Indirect	No par value common stock	100%
Xianyang Yongxiang Agriculture Technology Co., Ltd.	Qiaojiaguan Village, Jianjun Town Yongshou County, Xianyang Shaanxi Province, China	China	Indirect	No par value common stock	49% ¹

Other

Name of undertaking	Registered address	Country of incorporation	Direct/indirect Group interest	Share class	% of share capital/voting rights held by Group companies
Promar International Limited (03004562) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Direct	£1 ordinary	100%
Accounting & Managerial Services S. de R.L. de C.V.	Kansas No. 2028, Quintas Campestre, 31214, Chihuahua, Chih., Mexico	Mexico	Indirect	MXN1 class 1	100%
Génétiporc Servicios Tecnicos S.A. de C.V.	Wenceslao de la Barquera No. 7, Col. Villas del Sur, 76040 Queretaro, Queretaro, Mexico	Mexico	Indirect	MXN1 ordinary	100%
PIC Servicios Agropecuarios, S.A. de C.V.	Wenceslao de la Barquera No. 7, Col. Villas del Sur, 76040 Queretaro, Queretaro, Mexico	Mexico	Indirect	MXN1,000 ordinary	100%
GIL Finance S.à.r.l.	121 Avenue de la Faiencerie , L-1511, Luxembourg	Luxembourg	Indirect	USD1 ordinary	100%
ABS International, Inc.	1525 River Road, De Forest WI 53532, United States	United States	Indirect	USD1 ordinary	100%
ABS Pecplan Ltda.	Rod. BR 050 Km 196 + 150metros, Zona Rural, Delta, MG – 38108-000, Brazil	Brazil	Direct	BRL1 ordinary	100%
Brazilian Holdings Limited (00479048) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
Fyfield (SM) Limited (01026475) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
Fyfield Holland B.V.	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	Netherlands	Indirect	NLG100 ordinary	100%
Genus Investments Limited (02028517) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Direct	£1 ordinary	100%
PIC (UK) Limited	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
PIC Do Brasil Empreendimentos e Participações Ltda.	Rua 1 JN, no. 1411, Sala 13,, Jardim Novo, Rio Claro, Estado De Sao Paulo, CEP 13.502.741, Brazil	Brazil	Indirect	BRL0.01 ordinary	100%
PIC Fyfield Limited (00019739) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%

35. Group entities continued

Name of undertaking	Registered address	Country of incorporation	Direct/indirect Group interest	Share class	% of share capital/voting rights held by Group companies
Pig Improvement Company Overseas Limited (00716304) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
Premium Genetics (UK) Limited (08461779) ²	Alpha Building, London Road, Nantwich, Stapeley, Cheshire, CW5 7JW, United Kingdom	United Kingdom	Indirect	£0.10 ordinary	100%
Premium Genetics Limited	Suite 6, Rineanna House, Shannon Free Zone, Co. Clare, Ireland	Ireland	Indirect	€1.27 ordinary	100%
Sygen, Inc.	100 BlueGrass Commons Blvd, Suite 2200, Hendersonville, TN 37075 United States	United States	Indirect	USD1 common	100%
Sygen International Limited (03215874) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Direct	£0.10 ordinary	100%
Agence Spillers N.V.	Place Saint-Lambert 14, 1200 Woluwe-Saint-Lambert, Belgium	Belgium	Indirect	No par value common stock	100%
Bellapais Farm Limited	Julia House, 3 Th Dervis Street, Nicosia, Ch 1066, Cyprus	Cyprus	Indirect	No par value common stock	34.1% ¹
Bellapais Hatcheries Limited	Julia House, 3 Th Dervis Street, Nicosia, Ch 1066, Cyprus	Cyprus	Indirect	No par value common stock	34.1% ¹
Brazilian Properties Limited	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Direct	£1 ordinary	100%
Busby Participações Ltda.	Av. Leopoldino de Oliveira, 4.113, Sala 303, Centro, CEP: 38010-000, UBERABA-MG	Brazil	Indirect	BRL1 ordinary	100%
Cannavarro Participações Ltda.	Av. Leopoldino de Oliveira, 4.113, Sala 303, Centro, CEP: 38010-000, UBERABA-MG	Brazil	Indirect	BRL1 ordinary	100%
Dalco Exportadora Ltda.	Av. Leopoldino de Oliveira, 4.113, Sala 303, Uberaba, Minas Gerais, CEP 38010-000, Brazil	Brazil	Indirect	BRL1 ordinary	100%
Dalgety Pension Trust Limited	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
Elmira ABC Ltd.	1525 Floradale Road, Elmira ON N3B 2Z1, Canada	Canada	Indirect	NPV class "A" special shares NPV class "B" special shares NPV common shares	100%
Fyfield Dormant	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
Fyfield Ireland Limited	One Spencer Dock, North Wall Quay, Dublin 1, Ireland	Ireland	Indirect	€1.25 'A' ordinary €1.25 'B' ordinary	100%
Genus Americas, Inc.	1525 River Road, De Forest WI 53532, United States	United States	Indirect	USD0.001 common	100%
Genus Quest Trustees Limited	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Direct	£1 ordinary	100%
Genus Trustees Limited	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Direct	£1 ordinary	100%

NOTES TO THE GROUP FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

35. Group entities continued

Name of undertaking	Registered address	Country of incorporation	Direct/indirect Group interest	Share class	% of share capital/voting rights held by Group companies
PIC Benelux B.V.	Saffierborch 18, 5241 LN Rosmaien, Netherlands	Netherlands	Indirect	No par value common stock	100%
Pigtales Limited	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
Progen Ltd	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£1 ordinary	100%
Skogluno Participações Ltda.	Av. Leopoldino de Oliveira, 4.113, Sala 303, Centro, CEP: 38010-000, UBERABA-MG	Brazil	Indirect	BRL1 Ordinary	100%
Spillers Limited (00024021) ²	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£0.25 ordinary £1 preference	100%
Spillers Overseas Limited	Matrix House, Basing View, Basingstoke, Hampshire, RG21 4DZ, United Kingdom	United Kingdom	Indirect	£0.25 ordinary	100%
Spratts GmbH	Ratsteich 31, 24837 Schleswig, Germany	Germany	Indirect	No par value common stock	100%
Sygen Investimentos Ltda.	Av. Leopoldino de Oliveira, 4113 – Sala 303, Uberaba, Minas Gerais, CEP 38010-000, Brazil	Brazil	Indirect	BRL0.63 ordinary	100%
Usicafé SA	c/o Cabinet Mayor, avocats, Rue Jean-Gabriel Eynard 6, 1205 Genève	Switzerland	Indirect	CHF1,000 ordinary	100%

1 Associated undertakings including joint venture interests.

2 UK subsidiaries' name and registered number taking advantage of the audit exemption within section 479A of the Companies Act 2006.

36. Deferred consideration

During the year, we recognised the value of Møllevang Genetics and made deferred consideration payments totalling £1.8m in respect of our previous acquisitions of De Novo Genetics and Hermitage Genetics.

Avlscenter Møllevang A/S ('Møllevang')

On 14 November 2017, Genus PIC announced that commencing 2 July 2018, it had entered into a strategic relationship with Møllevang, a leading Danish porcine genetics company. After 2 July 2018, Møllevang became an elite porcine genetics production partner for PIC in Denmark and will continue to distribute elite genetics to the Danish market and certain other countries.

As all material conditions for completion of the transaction with Møllevang under the terms of the subscription agreement were fulfilled at the balance sheet date, we have recognised the value of the genetics acquired in biological assets and a related total deferred consideration of £23.5m was recorded in current and non-current liabilities.

The preliminary amounts recognised in respect of the identifiable assets acquired are set out in the table below.

	£m
Biological assets acquired (see note 15)	25.1
Satisfied by:	
Cash consideration	1.6
Deferred consideration – current	19.3
Deferred consideration – non-current	4.2
	25.1

37. Post balance sheet events

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 will be an elite porcine genetics production partner for PIC in Denmark and will continue to distribute elite genetics to the Danish market and certain other countries.

38. Non-controlling interest

	2018 £m	2017 £m
Non-controlling interest	5.7	6.1
Put option over non-controlling interest (see note 24)	(3.2)	(3.3)
Total non-controlling interest	2.5	2.8

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

De Novo Genetics

	2018 £m	2017 £m
Biological assets	10.7	10.2
Current assets	0.7	1.4
Non-current assets	3.1	2.4
Current liabilities	(4.2)	(2.1)
Net assets	10.3	11.9
Equity attributable to owners of the Company	(5.2)	(6.1)
Non-controlling interest for De Novo Genetics	5.1	5.8
Other non-controlling interest	0.6	0.3
Non-controlling interest	5.7	6.1

No dividends were paid to non-controlling interests (2017: £0.1m).

PARENT COMPANY BALANCE SHEET

AS AT 30 JUNE 2018

	Note	2018 £m	2017 £m
Non-current assets			
Intangible assets	41	4.9	3.1
Tangible assets	42	0.6	0.8
Investments in subsidiaries	43	87.2	84.4
Other investments	44	2.2	1.9
Derivative financial asset	50	0.3	1.3
		95.2	91.5
Current assets			
Debtors	45	461.7	465.2
Cash at bank and in hand		–	–
		461.7	465.2
Creditors: amounts falling due within one year	47	(249.8)	(257.5)
Net current assets		211.9	207.7
Total assets less current liabilities			
Creditors: amounts falling due after more than one year	48	(123.5)	(127.8)
Net assets		183.6	171.4
Capital and reserves			
Called up share capital	51	6.2	6.1
Share premium account		112.8	112.8
Own shares		(0.1)	(0.1)
Retained earnings		62.7	51.5
Hedging reserve		2.0	1.1
Shareholders' funds		183.6	171.4

The Company recognised a total comprehensive profit for the year of £21.6m (2017: £35.8m profit).

The Financial Statements were approved and authorised for issue by the Board of Directors on 5 September 2018.

Signed on behalf of the Board of Directors

Karim Bitar
Chief Executive

Stephen Wilson
Group Finance Director

Company number: 02972325

PARENT COMPANY STATEMENT OF CHANGES IN EQUITY

FOR THE YEAR ENDED 30 JUNE 2018

	Called up share capital £m	Share premium account £m	Own shares £m	Retained earnings £m	Hedging reserve £m	Total equity £m
Balance at 1 July 2016	6.1	112.3	(0.1)	26.8	(0.6)	144.5
Total comprehensive profit for the financial year	–	–	–	35.8	–	35.8
Movement on pension asset recognition restriction	–	–	–	(1.2)	–	(1.2)
Shares issued	–	0.5	–	–	–	0.5
Dividends	–	–	–	(13.5)	–	(13.5)
Share-based payment expense, net of tax	–	–	–	3.6	–	3.6
Fair value of movement on cash flow hedges, net of tax	–	–	–	–	1.7	1.7
Balance at 30 June 2017	6.1	112.8	(0.1)	51.5	1.1	171.4
Total comprehensive profit for the financial year	–	–	–	21.6	–	21.6
Actuarial gain on retirement benefits obligations	–	–	–	2.8	–	2.8
Movement on pension asset recognition restriction	–	–	–	(2.8)	–	(2.8)
Shares issued	0.1	–	–	–	–	0.1
Dividends	–	–	–	(14.9)	–	(14.9)
Share-based payment expense, net of tax	–	–	–	4.5	–	4.5
Fair value of movement on cash flow hedges, net of tax	–	–	–	–	0.9	0.9
Balance at 30 June 2018	6.2	112.8	(0.1)	62.7	2.0	183.6

For information on dividends see note 13, cash flow hedges see note 24 and share-based payment expense see note 28.

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

39. Accounting information and policies

Basis of preparation

The Parent Company Financial Statements have been prepared in accordance with Financial Reporting Standard 101, 'Reduced Disclosure Framework' ('FRS 101') and the Companies Act 2006 (the 'Act'). FRS 101 sets out a reduced disclosure framework for a 'qualifying entity' as defined in the standard, which addresses the financial reporting requirements and disclosure exemptions in the individual financial statements of qualifying entities that otherwise apply the recognition, measurement and disclosure requirements of EU-adopted IFRSs.

The Company Financial Statements have been prepared using the historical cost convention, as modified by the revaluation of certain financial assets and financial liabilities and in accordance with the Act. The Financial Statements have been prepared on a going concern basis, as set out in note 1 of the Consolidated Financial Statements of Genus plc. The accounting policies set out below and stated in the relevant notes have been applied consistently to all periods presented in these Financial Statements.

The Company has taken advantage of the disclosure exemptions available under FRS 101 in relation to share-based payments, business combinations, financial instruments, presentation of comparative information in respect of certain assets, presentation of a cash flow statement, standards issued not yet effective, impairment of assets and related party transactions. Where required, equivalent disclosures are given in the Consolidated Financial Statements of Genus plc.

As permitted by section 408 of the Act, the Company has not presented its own income statement in this Annual Report.

Critical accounting judgements and key sources of estimation uncertainty

Preparing Company Financial Statements in conformity with FRS 101 requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the Company Financial Statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised, if the revision affects only that period, or in the period of the revision and future periods, if the revision affects both current and future periods.

The areas of judgement that have the most significant effect on the amounts recognised in the financial statements are the review for impairment of investment carrying values and the valuation of share-based payments.

Pensions

A number of our employees are members of defined contribution pension schemes. We charge contributions to profit and loss as they become payable under the schemes' rules. We show differences between the contributions payable and the amounts actually paid as either accruals or prepayments in the balance sheet. The schemes' assets are held separately from those of the Company.

Certain former employees of the Company are members of one of the Group's defined benefit pension schemes, further details of which are given in note 27 of the Group Financial Statements. The schemes are all multi-employer defined benefit schemes, whose assets and liabilities are held independently from the Group but within their sponsored Group company.

Significant accounting policies applied in the current reporting period that relate to the Financial Statements as a whole

Taxation

We provide for current tax, including UK corporation tax and foreign tax, at the amounts we expect to pay or recover, using the tax rates and the laws enacted or substantively enacted at the balance sheet date.

Foreign currencies

We record transactions in foreign currencies at the rate ruling at the transaction date or at the contracted rate, if the transaction is covered by a forward foreign currency contract. We retranslate monetary assets and liabilities denominated in foreign currencies at the prevailing rate of exchange at the balance sheet date or, if appropriate, at the forward contract rate. All differences are taken to the income statement.

Own shares

The Company has adopted FRS 101, which requires us to recognise the assets and liabilities associated with the Company's investment in its own shares in the Company's Financial Statements, where there is de facto control of the assets and liabilities.

The Company's own shares held by a Qualifying Employee Share Ownership Trust remain deducted from shareholders' funds until they vest unconditionally with employees.

39. Accounting information and policies *continued*

Employee share schemes

The Company's Executive Directors and Chief Operating Officers receive part of their remuneration in the form of share awards, which vest upon meeting performance criteria over a three-year period.

We measure the cost of these awards by reference to the shares' fair value at the award date. At the end of each financial reporting period, we estimate the extent to which the performance criteria will be met at the end of three years and record an appropriate charge in the profit and loss account, together with a corresponding credit to profit and loss reserves. Changes in estimates of the number of shares vesting may result in charges or credits to the profit and loss account in subsequent periods.

Share-based payments

We have implemented the generally accepted accounting principle for accounting for share-based payments with subsidiary undertakings under FRS 101, whereby the Company has granted rights to its shares to employees of its subsidiary undertakings under an equity-settled arrangement, and the subsidiaries have not reimbursed the Company for these rights. Under this arrangement, the Company treats the share-based payment recognised in the subsidiary's Financial Statements as a cost of investment in the subsidiary and credits equity with an equal amount.

Derivative financial instruments and hedging

Our activities expose us primarily to the financial risks of changes in foreign currency exchange rates and interest rates.

We use interest rate swaps to hedge interest rate risk. We also use forward foreign currency contracts, implemented through a medium-term US Dollar cross currency borrowing and related interest rate swap, to hedge exposure to translation risk associated with US Dollar net assets of subsidiaries. Forward foreign currency contracts do not qualify for hedge accounting in the Parent Company Financial Statements, as the hedged item is not in its balance sheet.

Our use of financial derivative instruments is governed by the Group's policies, which are approved by the Board of Directors. The notes to the Group Financial Statements include information about the Group's financial risks and their management, and its use of financial instruments and their impact on the Group's risk profile, performance and financial condition.

The fair value of the US Dollar and interest rate swaps is the estimated amount that we would receive or pay to terminate the swap at the balance sheet date, taking into account current interest rates and the creditworthiness of the swap counterparties.

The fair value of forward exchange contracts is their quoted market price at the balance sheet date, which is the present value of the quoted forward price.

Cash flow hedges

Where a derivative financial instrument is designated as hedging the variability in cash flows of a recognised asset or liability, or a highly probable forecast transaction, we recognise the effective part of any gain or loss on the instrument directly in the hedging reserve. We recognise any ineffective portion of the hedge immediately in the profit and loss account.

If we hedge a forecast transaction that subsequently results in our recognising a financial asset or liability, then we reclassify the associated gains and losses that we had recognised directly in equity into profit or loss. We do this in the same period or periods that the asset or liability affects profit or loss, which are the periods when we recognise the interest income or expense.

If we expect a hedged forecast transaction to occur but the hedging instrument has expired, been sold, terminated or exercised, or we have revoked the designation of the hedge relationship, then the cumulative gain or loss at that point remains in equity and we recognise it in accordance with the above policy when the transaction occurs. If we no longer expect the hedged transaction to occur, we immediately recognise in the profit and loss account the cumulative unrealised gain or loss recognised in equity.

When a hedging instrument expires or is sold, terminated or exercised, or we revoke designation of the hedge relationship, the cumulative gain or loss at that point remains in equity until we dispose of the investment it relates to.

We treat derivatives embedded in other financial instruments or other host contracts as separate derivatives, when their risks and characteristics are not closely related to those of the host contracts and the host contracts are not carried at fair value, with unrealised gains and losses reported in the income statement.

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

40. Employees

Staff costs including Directors' remuneration during the year amounted to:

	2018 £m	2017 £m
Wages and salaries	5.5	4.9
Social security costs	0.9	1.5
Pension costs	0.1	0.1
Share-based payment expense	2.4	2.0
	8.9	8.5

The employee costs above are inclusive of £0.1m (2017: £nil) which has been capitalised into intangible assets as part of the development of GenusOne (see note 41).

The Directors' Remuneration Report sets out details of the Directors' remuneration, pensions and share options.

The average monthly number of employees including Directors during the year was as follows:

	2018 Number	2017 Number
Administration	38	37

41. Intangible assets

Accounting policies

Patents, licences and software are stated at acquisition cost less accumulated amortisation. The amortisation period is determined by reference to expected useful life, which is reviewed at least annually. Amortisation is charged to the income statement on a straight-line basis over the estimated useful life. Changes in the expected useful life or the expected pattern of consumption of future economic benefits embodied in the asset are accounted for by changing the amortisation period or method, as appropriate, and are treated as changes in accounting estimates.

	Software £m	Patents and licences £m	Asset under construction £m	Total £m
Cost				
Balance at 1 July 2017	1.3	3.7	–	5.0
Additions	–	–	2.8	2.8
Reclassified from tangible fixed assets	0.2	–	–	0.2
Transfers	0.1	–	(0.1)	–
Disposals	(0.1)	–	–	(0.1)
Balance at 30 June 2018	1.5	3.7	2.7	7.9
Amortisation				
Balance at 1 July 2017	0.9	1.0	–	1.9
Amortisation for the year	0.2	0.9	–	1.1
Balance at 30 June 2018	1.1	1.9	–	3.0
Carrying amounts				
At 30 June 2018	0.4	1.8	2.7	4.9
At 30 June 2017	0.4	2.7	–	3.1

Assets under construction primarily relate to the ongoing development of GenusOne, a unified enterprise-wide business system.

42. Tangible assets**Accounting policies**

We state fixed assets at cost, together with any incidental acquisition expenses, or at their latest valuation, less depreciation and any provision for impairment. We calculate depreciation on a straight-line basis, to write the assets down to their estimated residual values over their estimated useful lives. The rates of annual depreciation on tangible fixed assets are as follows:

Leasehold improvements	period of lease
Equipment	3 to 20 years

We review the carrying value of fixed assets for impairment, if events or changes in circumstances indicate that the carrying value may not be recoverable.

	Short leasehold improvements £m	Equipment £m	Total £m
Cost			
Balance at 1 July 2017	0.5	0.8	1.3
Reclassified to intangible assets	–	(0.2)	(0.2)
Balance at 30 June 2018	0.5	0.6	1.1
Depreciation			
Balance at 1 July 2017	0.1	0.4	0.5
Depreciation for the year	–	–	–
Balance at 30 June 2018	0.1	0.4	0.5
Carrying amounts			
At 30 June 2018	0.4	0.2	0.6
At 30 June 2017	0.4	0.4	0.8

43. Investments in subsidiaries**Accounting policies**

Shares in subsidiary undertakings are stated at cost less any provision for impairment.

The Company assesses investments for impairment whenever events or changes in circumstances indicate that the carrying value of an investment may not be recoverable. If any such indication of impairment exists, then we estimate the recoverable amount. If the recoverable amount of the CGU is less than the value of the investment, it is considered to be impaired and we write it down to its recoverable amount. An impairment loss is recognised immediately in the profit and loss account.

	Shares in subsidiary undertakings £m
Cost	
Balance at 1 July 2017	277.6
Additions	2.8
Balance at 30 June 2018	280.4
Provision for impairment	
Balance at 1 July 2017	193.2
Provided during the year	–
Balance at 30 June 2018	193.2
Carrying amounts	
At 30 June 2018	87.2
At 30 June 2017	84.4

Additions relate to increasing our investment in ABS Argentina S.A. and Genus Investments Limited.

Principal subsidiary undertakings

The Company's principal subsidiaries and their main activities are given in note 35.

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

44. Other investments

Accounting policies

Listed equity investments are stated at fair value. Unlisted equity investments that do not have a quoted market price in an active market and whose fair value cannot be reliably measured are measured at cost less any identified impairment losses at the end of each reporting period.

	2018 £m	2017 £m
Listed investment	1.9	1.6
Other investment	0.3	0.3
	2.2	1.9

In the prior year, as part of the NMR pension agreement, we acquired 2,120,000 ordinary shares in National Milk records plc – see note 27.

In the prior year, we also invested £0.3m in RenOVate Biosciences Inc.

45. Debtors

	Note	2018 £m	2017 £m
Amounts due within one year			
Amounts owed by Group undertakings		453.9	462.3
Corporation tax recoverable		2.0	0.1
Prepayments and accrued income		1.8	1.3
Deferred taxation	46	1.5	1.5
Derivative financial asset	50	2.5	–
		461.7	465.2

At the balance sheet date, the amounts owed by Group undertakings were £453.9m (2017: £462.3m). The carrying amount of these assets approximates their fair value. There are impaired receivable balances of £nil (2017: £nil). Of the amounts owed by Group undertakings, £333.3m (2017: £334.7m) is interest bearing.

46. Deferred taxation

Accounting policies

We recognise deferred taxation in respect of all timing differences that have originated but not reversed at the balance sheet date, where transactions or events that result in an obligation to pay more tax in future or a right to pay less tax in future have occurred at the balance sheet date.

We only recognise deferred taxation assets if we consider it more likely than not that we will have suitable profits from which we can deduct the future reversal of the underlying timing differences. Timing differences are differences arising between the Company's taxable profits and its results as stated in the Financial Statements, and which are capable of reversing in one or more subsequent periods.

We only recognise deferred taxation in respect of the future remittance of retained earnings of overseas subsidiaries to the extent that, at the balance sheet date, dividends have been accrued as receivable.

We measure deferred taxation on a non-discounted basis, at the tax rates we expect to apply in the periods in which we expect the timing differences to reverse, based on tax rates and laws enacted or substantively enacted at the balance sheet date.

The movements in deferred taxation are as follows:

	2018 £m	2017 £m
At the start of the year	1.5	1.6
Recognised in income statement	–	0.1
Release in equity	–	(0.2)
At the end of the year	1.5	1.5

46. Deferred taxation *continued*

The amounts provided are as follows:

	2018 £m	2017 £m
Share-based payment expense	1.5	1.3
Other timing differences	–	0.2
	1.5	1.5

Unrecognised deferred tax assets

At the balance sheet date, the Company had no unused tax losses available for offset against future profits, with a potential tax benefit of £nil (2017: £nil).

47. Creditors: amounts falling due within one year

	Note	2018 £m	2017 £m
Bank loans and overdrafts	49	10.6	7.5
Trade creditors		2.5	0.8
Other creditors		1.0	0.7
Amounts owed to Group undertakings		233.1	245.0
Accruals and deferred income		2.3	2.9
Derivative financial liabilities	50	0.3	0.6
		249.8	257.5

Included within amounts owed to Group undertakings are amounts of £207.5m (2017: £209.6m) which are interest bearing and payable on demand.

There are no outstanding contributions due to defined contribution pension schemes for the benefit of the employees (2017: £nil).

48. Creditors: amounts falling due after more than one year

	Note	2018 £m	2017 £m
Bank loans and overdrafts	49	120.7	127.4
Derivative financial liabilities	50	0.6	0.4
Provisions – share forfeiture		2.2	–
		123.5	127.8

The share forfeiture provision of £2.2m relates to potential claims that could be made by untraced members over the next three years, relating to the resale proceeds of shares that were identified during the year as being forfeited.

49. Loans and borrowings**Accounting policies**

We initially state debt at the amount of the net proceeds, after deducting issue costs. The carrying amount is increased by the finance cost in respect of the accounting period and reduced by payments made in the period.

We charge the finance costs of debt to the profit and loss account over the debt term, at a constant rate on the carrying value of the debt to which they relate.

	2018 £m	2017 £m
Loans and borrowings comprise amounts falling due:		
In one year or less or on demand	11.0	8.1
In more than one year but not more than two years	–	–
In more than two years but not more than five years	121.4	128.2
	132.4	136.3
Less: unamortised issue costs	(1.1)	(1.4)
	131.3	134.9
Amounts falling due within one year	(10.6)	(7.5)
Amounts falling due after more than one year	120.7	127.4

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

49. Loans and borrowings continued

During the year, we exercised an accordion request, which increased our available credit facilities by £20m. At the balance sheet date, the Company's credit facilities comprised a £95m multi-currency revolving credit facility and a US\$165m revolving credit facility. £46m of the Company's credit facilities expire in February 2021. The remaining facilities will expire in February 2022.

As part of its interest rate strategy, the Company has entered into interest rate swaps to hedge floating LIBOR rates. As a result, bank loan and overdrafts include borrowings of US\$110m (£83.3m) fixed at 1.17% and £35m fixed at 0.73%, excluding applicable bank margin.

Terms and debt repayment schedule

Terms and conditions of outstanding loans and overdrafts were as follows:

	Currency	Interest rate	2018 £m	2017 £m
Revolving credit facility and overdraft	GBP	1.5%	33.5	22.6
Revolving credit facility, term loan and overdraft	USD	3.3%	90.1	106.2
Revolving credit facility and overdraft	EUR	1.2%	0.9	–
Other unsecured bank borrowings	Other	1.0%	6.8	6.1
Total interest-bearing liabilities			131.3	134.9

The above revolving credit facilities are unsecured.

50. Derivatives and other financial instruments

Additional disclosures on financial instruments can be found in note 24.

51. Capital and reserves

Share capital

	2018 Number	2017 Number	2018 £m	2017 £m
Issued and fully paid				
Ordinary shares of 10 pence	61,542,467	61,161,622	6.2	6.1

The holders of ordinary shares are entitled to receive dividends, as declared from time to time.

The movement in share capital for the period was as follows:

	2018 Number	2017 Number	2018 £m	2017 £m
Issued under the Executive Share Option Plan	30,845	68,840	–	–
Issued to Employee Benefits Trust	350,000	80,079	–	–
	380,845	148,919	–	–

Shares issued under the Executive Share Option Plan were issued at option prices as follows:

	2018 Number	Price (pence)	2017 Number	Price (pence)
Executive Share Option Plan				
	2,721	582.00	1,984	582.00
	2,970	776.00	2,847	776.00
	3,268	654.50	2,434	654.50
	2,034	729.83	8,065	729.83
	4,580	977.83	24,139	977.83
	4,145	1,334.00	9,206	1,334.00
	11,127	1,413.00	20,165	1,413.00
	30,845		68,840	

51. Capital and reserves *continued***Reserve for own shares**

The Company's shares are held by a QUEST, which is an employee benefit trust established to facilitate the operation of our long-term incentive scheme for senior management. The reserve amount represents the deduction in arriving at shareholders' funds for the consideration the trust paid for the Company's shares, which had not vested unconditionally at the balance sheet date. The number and market value of the ordinary shares held by the employee benefit trust and the QUEST were:

	2018 Number	2017 Number	2018 £m	2017 £m
Shares allocated but not vested	87,265	70,272	2.3	1.3
Unallocated shares	92,334	92,334	2.4	1.6
	179,599	162,606	4.7	2.9

The shares have a nominal value of £17,960 (2017: £16,261).

Hedging reserve

The hedging reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedging instruments net of taxation – see note 24.

52. Operating leases**Accounting policies**

For operating leases, we charge the rentals payable, and any incentives we receive to enter into an operating lease, to the income statement on a straight-line basis over the lease term.

The Company has entered into non-cancellable commercial arrangements on certain equipment, properties and motor vehicles. The leases have various terms and renewal rights.

Total of future minimum lease payments under non-cancellable operating leases which expire after:

	2018 £m	2017 £m
More than five-years	0.8	1.0

Operating lease rentals charged in the year:

	2018 £m	2017 £m
Other	0.2	0.2

The leases have various terms and renewal rights. There are no other restrictions imposed by these lease agreements.

53. Related party transactions

The Company is exempt under FRS 101 from disclosing transactions with other members of the Group.

Transactions between the Company and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note. Details of other related party transactions are disclosed in note 17, note 27 and note 34 in the Group Financial Statements.

54. Capital and other commitments

At 30 June 2018, outstanding contracted capital expenditure amounted to £nil (2017: nil).

A software agreement was signed on 23 June 2017, with a minimum five-year term, with an annual cost of £0.8m.

NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

FOR THE YEAR ENDED 30 JUNE 2018

55. Pensions, guarantees and contingencies

On 23 June 2017, NMR withdrew from the MPF under a Flexible Apportionment Arrangement ('FAA') between NMR, Genus and the Trustees of the MPF. In return for the right to withdraw from the MPF, NMR made a one-off, lump sum cash payment of £10.1m to the MPF, equivalent to the undiscounted value of all NMR's future payments under the existing MPF recovery plan which extends to March 2026. NMR also made a payment to Genus of £4.7m, with £1.4m being satisfied by the issue of NMR shares.

As a result of the NMR withdrawal, Genus plc has recognised in the prior year £5.7m as an exceptional credit, with £4.5m (£4.7m payment net of fees) being received directly from NMR, and £1.2m from the MPF pension scheme, reflecting the impact of NMR paying undiscounted amounts into the scheme.

During the year, the NMR pension assigned to Genus plc under the FAA recorded an actuarial gain of £2.8m, which was restricted in accordance with IFRIC 14 to £nil, as the Company does not have unilateral right to this surplus. For additional information on the MPF pension scheme to which NMR was one of the participating employers, please see note 27.

The retirement benefit obligations referred to in note 27 include obligations relating to the Milk Pension Fund 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% (2017: 85%) 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 total deficit of the MPF scheme from the most recent triennial valuation can be found in note 27.

Certain UK subsidiaries which are detailed in note 35 will take advantage of the audit exemption set out within section 479A of the Companies Act 2006 for the year ended 30 June 2018, The Company has assessed the probability of loss under the guarantee as remote.

At 30 June 2018, we had entered into bank guarantees totalling £1.0m.

FIVE-YEAR RECORD – CONSOLIDATED RESULTS

The information included in the five-year record below is in accordance with IFRS as adopted for use in the European Union.

Financial results	2018 £m	2017 £m	2016 £m	2015 £m	2014 £m
Revenue from continuing operations	470.3	459.1	388.3	398.5	372.2
Adjusted operating profit from continuing operations ¹	57.7	55.1	49.3	47.2	42.9
Adjusted operating profit including joint ventures and associates ¹	63.1	60.1	54.3	51.2	44.8
Adjusted profit before tax ¹	58.5	56.4	49.7	46.6	39.3
Basic adjusted earnings per share ¹	75.9p	69.4p	60.7p	56.8p	46.5p
Diluted adjusted earnings per share ¹	74.9p	68.4p	60.1p	56.1p	46.4p
Operating profit from continuing operations	8.2	38.2	58.6	59.5	41.8
Profit before tax from continuing operations	7.8	40.7	60.9	57.8	38.2
Profit after tax from continuing operations	41.6	34.3	50.3	40.5	28.9
Basic earnings per share	69.7p	53.8p	81.1p	65.7p	47.7p
Diluted earnings per share	68.7p	53.0p	80.3p	64.9p	47.6p
Net assets	419.1	402.1	368.1	305.1	285.3
Net debt	108.5	111.6	89.7	71.8	63.9

¹ Adjusted operating profit, adjusted profit before tax and adjusted basic and diluted earnings per share are before net IAS 41 valuation movement on biological assets, amortisation of acquired intangible assets, share-based payment expense, exceptional items and other gains and losses.

GLOSSARY

AGM – Annual General Meeting.

Artificial insemination ('AI') – Using semen collected from a bull or boar to impregnate a cow or sow when in estrus. Artificial insemination allows a genetically superior male to be used to mate with many more females than would be possible with natural mating.

ASF – African Swine Fever.

Biosecurity – The precautions taken to reduce the chance of transmitting disease agents from one livestock operation to another.

Boar – A male pig.

BRD – Bovine Respiratory Disease, a complex, bacterial and viral infection that causes lung disease in cattle (particularly calves) and is often fatal.

CPI – Consumer Price Index.

CRISPR-Cas 9 – Technology which accurately targets and cuts DNA to produce precise and controllable changes to the genome.

CSR – Corporate Social Responsibility.

DSBP – Deferred Share Bonus Plan.

EPS – Earnings per share.

Farrow – When a sow gives birth to piglets.

GELT – Genus Executive Leadership Team.

Gender skew – The ability to influence the proportion of offspring being of a particular sex.

Genetic gain – The change of the genetic make up of a particular animal population in response to having selected parents that excelled genetically for important traits.

Genetic lag – The amount of time required to disseminate genetic gain from a nucleus herd to the commercial customer.

Genetic nucleus – A specialised pig herd, where Genus PIC keeps its pure lines. Pigs are genetically tested at the nucleus to select the best animals to produce the next generation.

Genomic bull – A bull which has been assessed through genomic testing. This typically refers to bulls which have not been progeny-tested.

Genomically tested – An animal that has been DNA profiled.

Genomics – The study of the genome, which is the DNA sequence of an animal's chromosomes.

Gilt – A young female pig, which has not yet given birth.

GMS – ABS's Genetic Management System, which creates a genetic solution tailored to each individual dairy producer to obtain improved herd genetics.

Grandparent – The relationship of a breeding pig to the generation of terminal market pigs. A grandparent produces parents, who in turn produce the commercial generation of terminal pigs.

Group – Genus plc and its subsidiary companies.

GSS – Genus Sexed Semen.

In vitro fertilisation ('IVF') – The fertilisation of an oocyte with semen (outside an animal) in a laboratory for transfer into a surrogate.

Index/Indices – A formula incorporating economically important traits for ranking the genetic potential of animals as parents of the next generation.

Integrated pork producer – Producers of pork typically involved in raising animals to slaughter weight all the way through to packaged and/or branded pork products.

IntelliGen – The technology platform used to process sexed bovine semen for ABS and third-party customers and commercialised by ABS globally as Sexcel.

IP – Intellectual property.

IPR – Inter Partes Review before the US Patent and Trademarks Office.

IVB – In Vitro Brasil S.A.

JV – Joint venture.

Line – Multiple animals that have been mated together in a closed breeding population. Pure lines can have their origins in one founding breed or in several breeds.

Market pig equivalents ('MPE') – Refers to a standardised measure of our customers' production of slaughter animals that contain our genetics with genes from each of the sow and boar counting for half of the animal.

Multiplier – A producer whose farm contains grandparent sows. The farm crosses together two lines of grandparents, multiplying the number of genetically improved parents that are available for sale.

NuEra – The ABS beef breeding programme and index designed to drive the customer's genetic improvement and deliver total system profitability for the beef supply chain.

PQA – Pork Quality Assurance.

Progeny tested – Elite animals whose genetic value as a parent has been tested and validated through the performance of their offspring.

PRRSv – Porcine Reproductive and Respiratory Syndrome Virus.

PSP – Performance Share Plan.

PTAB – Patent Trial and Appeal Board before the US Patent and Trademarks Office.

R&D – Research and development.

RMS – ABS's Reproductive Management System, which is a systematic approach to maximising pregnancy production and its contribution to herd profitability.

RPI – Retail Price Index.

RWD – ABS's Real World Data System of observed performance data from many dairy herds.

Sexcel – The ABS brand of sexed bovine genetics produced using IntelliGen.

Sire – The male parent of an animal.

Sire line – The male line selected for traits desirable for the market.

Sow – A female pig which has given birth at least once.

Straw – A narrow tube used to package frozen bull semen.

Stud – Locations where bulls or boars are housed and their semen collected, evaluated, diluted into multiple doses/straws and packaged, ready for shipping to farms.

Terminal boars – The male pig that is used to mate with a parent female to produce a terminal pig.

Trait – A measurable characteristic that may be a target for genetic selection.

TransitionRight – Genus ABS's patent-pending genetic selection tool to help prevent multiple post calving metabolic disorders that occur during transition.

Unit – A straw of frozen bull semen or tube/bag of fresh boar semen sold to a customer.

NOTICE OF ANNUAL GENERAL MEETING

THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION

If you are in any doubt as to the action you should take, you should consult your stockbroker, bank manager, solicitor, accountant or other independent financial adviser authorised under the Financial Services and Markets Act 2000. If you have sold or transferred all your shares in Genus plc, please send this document and the accompanying documents as soon as possible to the purchaser or transferee, or to the stockbroker, bank or other agent through whom the sale or transfer was effected for transmission to the purchaser or transferee.

Notice of Annual General Meeting

Notice is hereby given that the 2018 Annual General Meeting of Genus plc (the 'Company') will be held at Buchanan Communications, 107 Cheapside, London EC2V 6DN on Thursday, 15 November 2018 at 11.00 am for the following purposes:

To consider and if thought fit, to pass the following resolutions, of which numbers 1 to 13 will be proposed as ordinary resolutions and numbers 14 to 17 as special resolutions.

Ordinary Resolutions

1. To receive the Company's audited Financial Statements and the Directors' Reports for the year ended 30 June 2018 (the 'Annual Report and Accounts').
2. To approve the Directors' Remuneration Report for the year ended 30 June 2018, as set out on pages 65 to 88 of the Company's Annual Report 2018.
3. To declare a final dividend of 17.9 pence per ordinary share, payable on 30 November 2018 to shareholders on the register of members at the close of business on 16 November 2018.
4. To re-elect Bob Lawson as a Director of the Company who, being eligible, offers himself for re-election.
5. To re-elect Karim Bitar as a Director of the Company who, being eligible, offers himself for re-election.
6. To re-elect Stephen Wilson as a Director of the Company who, being eligible, offers himself for re-election.
7. To re-elect Lysanne Gray as a Director of the Company who, being eligible, offers herself for re-election.
8. To re-elect Lykele van der Broek as a Director of the Company who, being eligible, offers himself for re-election.
9. To elect Lesley Knox as a Director of the Company.
10. To elect Ian Charles as a Director of the Company.
11. To reappoint Deloitte LLP as auditor of the Company to hold office from the conclusion of the Annual General Meeting until the conclusion of the next general meeting of the Company at which Financial Statements are laid.
12. To authorise the Audit Committee of the Board to determine the remuneration of the auditor.
13. That the Directors be generally and unconditionally authorised in accordance with section 551 of the Companies Act 2006 (the 'Act') to exercise all the powers of the Company to allot shares in the Company and to grant rights to subscribe for, or to convert any security into, shares in the Company up to a maximum aggregate nominal amount of:
 - 13.1. £2,064,864.70 being 20,648,647 ordinary shares of 10 pence each ('Ordinary Shares') representing one third of the issued share capital of the Company; and
 - 13.2. 2,064,864.70 being 20,648,647 Ordinary Shares representing a further third of the issued share capital of the Company, provided that (i) they are equity securities (within the meaning of section 560(1) of the Act) and (ii) they are offered by way of an offer to holders of Ordinary Shares open for acceptance for a period fixed by the Directors to holders on the register on a fixed record date (as the Directors may determine) in proportion as nearly as may be to the respective numbers of Ordinary Shares held by them on any such record date and to other holders of equity securities entitled to participate therein, but subject to such exclusions or other arrangements as the Directors may deem necessary or expedient to deal with any fractional entitlements or legal or practical difficulties under the laws of, or the requirements of any regulatory body or any stock exchange in, any territory or by virtue of shares being represented by depositary receipts or any other matter (a 'rights issue'), such authority to expire on the conclusion of the Company's Annual General Meeting next following or, if earlier, the close of business on the day which is 15 months after the date on which this resolution is passed save that the Company may, before the expiry of such period, make an offer or agreement which would or might require shares to be allotted or such rights to be granted after such expiry and the Directors may allot shares and grant rights in pursuance of such an offer or agreement as if the authority conferred hereby had not expired.

Special Resolutions

14. That subject to and conditional on the passing of resolution 13, the Directors be authorised, pursuant to sections 570 and 573 of the Companies Act 2006 (the 'Act'), to allot equity securities (within the meaning of section 560 of the Act) for cash pursuant to the authority conferred by resolution 13 and by way of a sale of treasury shares as if section 561(1) of the Act did not apply to any such allotment, provided that this power shall be limited to the allotment of equity securities (and sale of treasury shares):
- 14.1. in connection with an offer of securities (but in the case of the authority granted under paragraph 13.2 of resolution 13 above by way of rights issue only, as defined in that paragraph) to the holders of Ordinary Shares on a fixed record date (as the Directors may determine) in proportion as nearly as may be to the respective numbers of Ordinary Shares held by them, on any such record date and to such other holders of equity securities entitled to participate therein, but subject to such exclusions or other arrangements as the Directors may deem necessary or expedient to deal with any fractional entitlements or legal or practical difficulties under the laws of, or the requirement of any regulatory body or any stock exchange in, any territory or by virtue of shares being represented by depository receipts or any other matter; and
- 14.2. other than pursuant to paragraph 14.1 above, to any person or persons up to an aggregate nominal amount of £309,729.71 representing not more than 5% of the issued share capital of the Company as at 1 October 2018 (being the latest practicable date prior to the publication of this Notice), such authority to expire upon the expiry of the general authority conferred by resolution 13 above, save that the Company may, before such expiry, make an offer or agreement which would, or might, require equity securities to be allotted, or treasury shares to be sold, after such expiry and the Directors may allot equity securities or sell treasury shares in pursuance of any such offer or agreement as if the power had not expired.
15. That subject to and conditional on the passing of resolution 13, the Directors be authorised, pursuant to sections 570 and 573 of the Companies Act 2006 (the 'Act'), and in addition to any authority granted under resolution 14 to allot equity securities (within the meaning of section 560 of the Act) for cash pursuant to the authority conferred by that resolution and by way of a sale of treasury shares as if section 561(1) of the Act did not apply to any such allotment and sale, provided that this power shall be:
- 15.1. limited to the allotment of equity securities, or sale of treasury shares, up to an aggregate nominal amount of £309,729.71 representing not more than 5% of the issued share capital of the Company as at 1 October 2018 (being the latest practicable date before publication of this Notice); and
- 15.2. used only for the purposes of financing (or refinancing, if the authority is to be used within six months after the original transaction) a transaction which the Directors of the Company determine to be an acquisition or other capital investment of a kind contemplated by the Statement of Principles on Disapplying Pre-Emption Rights most recently published by the Pre-Emption Group prior to the date of this Notice,
- such authority to upon the expiry of the general authority conferred by resolution 13 above, save that the Company may, before such expiry, make an offer or agreement which would, or might, require equity securities to be allotted, or treasury shares sold, after such expiry and the Directors may allot equity securities or sell treasury shares in pursuance of any such offer or agreement as if the power had not expired.
16. That the Company be generally and unconditionally authorised to make market purchases (within the meaning of section 693(4) of the Companies Act 2006) of Ordinary Shares on such terms and in such manner as the Directors think fit provided that:
- 16.1. the maximum aggregate number of Ordinary Shares hereby authorised to be purchased is 6,194,594 (representing 10% of the Company's issued ordinary share capital as at 1 October 2018, being the latest practicable date before publication of this Notice);
- 16.2. the minimum price, exclusive of any expenses, which may be paid for an Ordinary Share is 10 pence;
- 16.3. the maximum price, exclusive of any expenses, which may be paid for an Ordinary Share is an amount equal to the higher of: (a) 105% of the average of the middle market quotations for an Ordinary Share, as derived from the London Stock Exchange Daily Official List, for the five business days immediately before the day on which such share is contracted to be purchased; and (b) the higher of the price of the last independent trade and the highest current independent bid for an Ordinary Share in the Company on the trading venues where the market purchases by the Company pursuant to the authority conferred by this resolution 16 will be carried out; and

NOTICE OF ANNUAL GENERAL MEETING

- 16.4. the authority conferred by this resolution shall expire on the conclusion of the Company's Annual General Meeting next following or the close of business on the day which is 15 months after the date of its passing (whichever occurs first) unless previously renewed, varied or revoked by the Company in general meeting, except that the Company may, before such expiry, enter into a contract for the purchase of Ordinary Shares under the authority hereby conferred prior to the expiry of such authority, which will or may be completed by or executed wholly or partly after the expiration of this authority, and may purchase its Ordinary Shares in pursuance of any such contract.
17. That a General Meeting, other than an Annual General Meeting, may be called on not less than 14 clear days' notice and that such authority shall expire on the conclusion of the Company's Annual General Meeting next following.

The Board considers that all the resolutions to be considered at the Annual General Meeting are in the best interests of the Company and its members as a whole and are therefore likely to promote the success of the Company for the benefit of its members as a whole. The Directors unanimously recommend that you vote in favour of all the proposed resolutions as they intend to do in respect of their own beneficial holdings which amount in aggregate to 182,502 shares representing approximately 0.295% of the existing issued ordinary share capital of the Company.

By order of the Board
Registered office:
Matrix House
Basing View
Basingstoke
RG21 4DZ
Registered in England and Wales with number 02972325



Dan Hartley
Group General Counsel & Company Secretary
1 October 2018

Explanatory Notes

This section contains an explanation of each of the resolutions to be put to the Annual General Meeting. Resolutions 1 to 13 are ordinary resolutions requiring the approval of a simple majority of shareholders present (in person or by proxy) and voting at the Annual General Meeting. Resolutions 14 to 17 are special resolutions requiring the approval of 75% of shareholders present (in person or by proxy) and voting at the Annual General Meeting.

Resolution 1 – To Receive the Annual Report

The Chairman will present the Annual Report to the Annual General Meeting.

Resolution 2 – Approval of the Directors' Remuneration Report

The Company is required to offer an annual advisory vote on the implementation of the Company's existing remuneration policy in terms of the payments and share awards made to Directors during the year (the 'Directors' Remuneration Report') and a separate binding vote on the Company's forward looking remuneration policy (the 'Directors' Remuneration Policy') at least once every three years, or earlier if a change is made to the Directors' Remuneration Policy, or if the advisory vote is not passed by shareholders.

Resolution 2 seeks shareholder approval for the Directors' Remuneration Report as set out on pages 65 to 88 of the Company's Annual Report 2018. The Directors' Remuneration Report gives details of the Directors' remuneration for the year ended 30 June 2018. Resolution 2 is an advisory resolution and does not affect the future remuneration paid to any Director. The report also includes details of the Remuneration Committee's representations and activities. The Company's auditor Deloitte LLP has audited those parts of the Directors' Remuneration Report which are required to be audited and their report is issued in the Company's Annual Report 2018.

Shareholder approval for the Directors' Remuneration Policy was given at the Company's Annual General Meeting held in November 2016. As there are no proposed changes to the Directors' Remuneration Policy, it is not required to be offered at this year's Annual General Meeting. For ease of reference, a table summarising the Directors' Remuneration Policy has been included on pages 68 to 69 of the Directors' Remuneration Report, but that table does not form part of the Directors' Remuneration Report for the purposes of resolution 2.

Resolution 3 – Final Dividend

Final dividends must be approved by shareholders but must not exceed the amount recommended by Directors. If the meeting approves the recommended final dividend it will be paid out in accordance with resolution 3. An interim dividend of 8.1 pence per Ordinary Share was paid on 4 April 2018 to shareholders on the register at 9 March 2018, resulting in a total dividend for the year of 26.0 pence per Ordinary Share.

Resolutions 4 to 10 – Re-election/Election of Directors

In accordance with provisions of the UK Corporate Governance Code, all Directors of the Company are required to offer themselves for annual re-election. This is the first meeting at which Lesley Knox and Ian Charles stand for election. Biographies of all of the current Directors can be found on pages 46 to 47 of the Company's Annual Report 2018. The Board has confirmed, following a performance review, that all Directors standing for re-election continue to perform effectively and demonstrate commitment to their roles. The Board has considered whether each of the independent Non-Executive Directors is free from any relationship that could materially interfere with the exercise of his or her independent judgement and has determined that each continues to be considered to be independent.

Resolutions 11 and 12 – Appointment of Auditor and Auditor's Remuneration

The Company is required to appoint an auditor at each general meeting at which accounts are presented, to hold office until the end of the next such meeting. This resolution is recommended by the Audit Committee and proposes the reappointment of the Company's existing auditor, Deloitte LLP and gives authority to the Audit Committee to agree the auditor's remuneration.

Resolution 13 – Authority to Allot Shares

Resolution 13 is proposed as an ordinary resolution and seeks the approval of shareholders, in accordance with section 551 of the Act, to authorise the Directors to allot Ordinary Shares for a period as stated in resolution 13.

The Investment Association ('IA') guidelines on directors' authority to allot shares state that IA members will regard as routine resolutions seeking the authority to allot shares representing up to two-thirds of the Company's issued share capital, provided that any amount in excess of one-third of the Company's issued share capital is only used to allot shares pursuant to a fully pre-emptive rights issue.

In light of the IA guidelines, the Board considers it appropriate that Directors be granted authority to allot shares in the capital of the Company up to a maximum nominal amount of £4,129,729.40 representing two-thirds of the Company's issued ordinary share capital as at 1 October 2018 (the latest practicable date prior to publication of this Notice). If the Company wishes to allot more than a nominal amount of £2,064,864.70 (representing one-third of the Company's issued ordinary share capital), then any additional amount can only be allotted pursuant to a rights issue. The power will last until the end of the next Annual General Meeting of the Company or, if earlier, on the close of business on the day which is 15 months after the date on which resolution 13 is passed.

NOTICE OF ANNUAL GENERAL MEETING

The Directors have no current intention to allot new Ordinary Shares (other than in relation to the Company's employee share schemes) however they consider it appropriate to maintain the flexibility that this resolution provides. As at the date of this Notice, no shares are held by the Company in treasury.

Resolutions 14 and 15 – Disapplication of Pre-emption Rights

Resolutions 14 and 15 are special resolutions and give the Directors authority to allot Ordinary Shares in the capital of the Company pursuant to the authority granted under resolution 13 above for cash without complying with the pre-emption rights in the Act in certain circumstances.

Resolution 14 will permit the Directors to allot:

- (a) equity securities for cash and sell treasury shares up to a nominal amount of £4,129,729.40, representing two-thirds of the Company's issued share capital as at 1 October 2018 (the latest practicable date prior to publication of this Notice) on an offer to existing shareholders on a pre-emptive basis (that is including a rights issue or an open offer), with one-third being available only in connection with a rights issue (in each case subject to any adjustments, such as for fractional entitlements and overseas shareholders, as the Directors see fit); and
- (b) equity securities for cash and sell treasury shares up to a maximum nominal value of £309,729.71, representing approximately 5% of the issued ordinary share capital of the Company as at 1 October 2018 (the latest practicable date prior to publication of this Notice) otherwise than in connection with a pre-emptive offer to existing shareholders.

Resolution 15 is being proposed as a separate resolution to authorise the Directors to allot additional equity securities for cash and sell treasury shares up to a maximum nominal value of £309,729.71, representing a further 5% of the issued ordinary share capital of the Company (as at 1 October 2018, being the latest practicable date prior to publication of this Notice), otherwise than in connection with a pre-emptive offer to existing shareholders for the purposes of financing a transaction (or refinancing within six months of the transaction) which the Directors determine to be an acquisition or other capital investment contemplated by the Pre-Emption Group's Statement of Principles (the 'Pre-Emption Group Principles').

The Pre-Emption Group Principles allow the Company to seek authority for an issue of shares for cash otherwise than in connection with a pre-emptive offer of up to 10% of the Company's issued share capital, provided that 5% of the authority can only be used in connection with an acquisition or specified capital investment which is announced contemporaneously with the issue or which has taken place in the preceding six-month period and is disclosed in the announcement of the issue (a 'Relevant Acquisition or Specified Capital Investment'). The Directors believe that it is appropriate to seek this additional 5% authority in resolution 15 to give the Company the flexibility that this resolution affords. In line with Pre-Emption Group guidance, the annual disapplication of pre-emption rights is being proposed as two separate resolutions.

The Board intends to adhere to the provisions in the Pre-Emption Group's Principles and to not allot shares for cash on a non pre-emptive basis in excess of an amount equal to 7.5% of the total issued ordinary share capital of the Company (excluding treasury shares) within a rolling three-year period, without prior consultation with shareholders.

The authorities contained in resolutions 14 and 15 will expire upon the expiry of the authority to allot shares conferred in resolution 15 (that is at the end of the next Annual General Meeting of the Company or, if earlier, on the close of business on the day which is 15 months from the date of these resolutions). The Directors' existing authority expires at the forthcoming Annual General Meeting.

Resolution 16 – Authority to Purchase Own Shares

Resolution 16, is proposed as a special resolution and seeks authority for the Company to purchase up to 10% of its Ordinary Shares at, or between, the minimum and maximum prices specified in this resolution. This power would be used only after careful consideration by the Directors, having taken into account market conditions prevailing at that time, the investment needs of the Company, its opportunities for expansion and its overall financial position. The Directors would exercise the authority to purchase Ordinary Shares only if they considered it to be in the best interests of shareholders as a whole and if the purchase could be reasonably expected to result in an increase in earnings per share.

The Directors have no present intention of exercising the authority to purchase Ordinary Shares but consider it prudent to obtain the flexibility this resolution provides. In considering whether to use this authority, the Directors will take into account factors including the financial resources of the Company, the Company's share price and future funding opportunities. The authority will be exercised only if the Directors believe that to do so would result in an increase in earnings per share and would be in the interests of shareholders generally. Any purchases of Ordinary Shares would be by means of market purchases through the London Stock Exchange.

Under the Act, the Company is allowed to hold its own shares in treasury following a purchase of its own shares, instead of cancelling them. Such shares may be resold for cash or used to satisfy share options and share awards under the Company's share incentive schemes but all rights attaching to them, including voting rights and any right to receive dividends, are suspended whilst they are held in treasury. If the Directors exercise the authority conferred by resolution 16, the Company will have the option of holding repurchased shares in treasury.

If resolution 16 is passed at the Annual General Meeting, it is the Company's current intention to hold in treasury all of the shares it may purchase pursuant to the authority granted to it. However, in order to respond properly to the Company's capital requirements and prevailing market conditions, the Directors will reassess at the time of any and each actual purchase whether to hold the shares in treasury or cancel them, provided it is permitted to do so. As at the date of this Notice, no shares are held by the Company in treasury.

At 1 October 2018 (the latest practicable date prior to the publication of this Notice), options were outstanding to subscribe for 709,331 Ordinary Shares, representing 1.15% of the issued share capital at that date. If the full authority to purchase such shares (existing and sought) was exercised, they would represent 1.27% of the Company's issued share capital as at that date. The authority sought at the Annual General Meeting will expire at the conclusion of the Annual General Meeting next following, or the close of business on the day which is 15 months from the date of this resolution (whichever is earlier).

Resolution 17 – Notice Period for General Meetings

Resolution 17, is proposed as a special resolution and seeks the approval of shareholders to reduce to 14 clear days the notice period required for a general meeting (other than an Annual General Meeting). The notice period required for general meetings for listed companies is 21 days but the Company may provide a shorter notice period of 14 clear days (for meetings other than Annual General Meetings) provided two conditions are met. The first condition is that the Company offers a facility for shareholders to vote by electronic means. This condition is met if the Company offers a facility, accessible to all shareholders, to appoint a proxy by means of a website. The second condition is that there is an annual resolution of shareholders approving the reduction of the minimum notice period from 21 days to 14 days. Annual General Meetings will continue to be held on at least 21 clear days' notice. It is intended that the shorter notice period would not be used as a matter of routine for general meetings but only where the flexibility is merited by the business of the meeting and is thought to be in the interests of the shareholders as a whole.

General Notes

This Notice is being sent to all members and to any person nominated by a member of the Company under section 146 of the Act to enjoy information rights. Information regarding the Annual General Meeting, including the information required by section 311A of the Act, is available from www.genusplc.com.

Proxies

Members will find an attendance card and a form of proxy enclosed with this Notice. If you are attending the Annual General Meeting, you should bring the attendance card with you. Only holders of Ordinary Shares, or their duly appointed representatives, are entitled to attend, vote and speak at the Annual General Meeting. Any member so entitled may appoint one or more proxies to attend, speak and to vote instead of him or her. A proxy need not be a member of the Company but must attend the Annual General Meeting to represent you. Your proxy could be the Chairman, another Director of the Company or another person who has agreed to attend to represent you. Your proxy must vote as you instruct and must attend the meeting for your vote to be counted. Details of how to appoint one or more proxies are set out in the notes to the proxy form. A member may appoint more than one proxy provided each proxy is appointed to exercise rights attached to different shares. You may not appoint more than one proxy to exercise rights attached to any one share. A vote withheld is not a vote in law, which means that the vote will not be counted in the calculation of votes for or against the resolution. If no voting indication is given, your proxy will vote or abstain from voting at his or her discretion. Your proxy will vote (or abstain from voting) as he or she thinks fit in relation to any other matter which is put before the Annual General Meeting.

To be valid, a duly executed form of proxy for use at the Annual General Meeting together, if appropriate, with the power of attorney or other authority (if any) under which it is signed or a duly certified copy of such power or authority must be deposited at the offices of Equiniti Registrars, Freepost RTHJ-CLLL-KBKU, Equiniti, Aspect House, Spencer Road, Lancing, BN99 8LU at least 48 hours before the time appointed for holding the Annual General Meeting or any adjournment thereof. Alternatively, proxies may be appointed by having an appropriate CREST message transmitted, if you are a user of the CREST system (further details are below). In the case of a member which is a company, the proxy form must be executed under its common seal or signed on its behalf by an officer of the company or an attorney for the company.

To change your proxy instructions you may return a new proxy appointment using the methods set out above. Where you have appointed a proxy using the hard copy proxy form and would like to change the instructions using another hard copy proxy form, please contact Equiniti Limited, Aspect House, Spencer Road, Lancing BN99 6DA. The deadline for receipt of proxy appointments (see above) also applies in relation to amended instructions. Where two or more valid separate appointments of proxy are received in respect of the same share in respect of the same meeting, the one which is last sent shall be treated as replacing and revoking the other or others.

Completion and return of a form of proxy will not preclude shareholders from attending the Annual General Meeting and voting in person if they wish to do so.

The right to appoint a proxy does not apply to persons whose shares are held on their behalf by another person and who have been nominated to receive communications from the Company in accordance with section 146 of the Act ('nominated persons'). Nominated persons may have a right under an agreement with the registered member who holds shares on their behalf to be appointed (or to have someone else appointed) as a proxy. Alternatively, if nominated persons do not have such a right, or do not wish to exercise it, they may have a right under such an agreement to give instructions to the person holding the shares as to the exercise of voting rights.

NOTICE OF ANNUAL GENERAL MEETING

Voting record date

Pursuant to Regulation 41 of the Uncertificated Securities Regulations 2001, the time by which a person must be entered on the register of members of the Company in order to have the right to attend and vote at the Annual General Meeting is 6.30pm on 13 November 2018 (or if the Annual General Meeting is adjourned, members on the register of members not later than 6.30pm on the day that is two working days prior to the reconvened Annual General Meeting). Changes to entries on the register of members after the relevant time will be disregarded in determining the rights of any person to attend or vote (and the number of votes they may cast) at the Annual General Meeting or adjourned meeting.

Documents on display

Copies of contracts of service and letters of appointment between the Directors and the Company will be available for inspection at the Registered Office of the Company during normal business hours until the conclusion of the Annual General Meeting, and at the place of the Annual General Meeting for at least 15 minutes prior to the Annual General Meeting until its conclusion.

CREST

CREST members who wish to appoint a proxy or proxies through the CREST electronic proxy appointment service may do so for this Annual General Meeting to be held on 15 November 2018 at 11.00am and any adjournment(s) thereof by using the procedures described in the CREST Manual found on the Euroclear website www.euroclear.com. CREST Personal Members or other CREST sponsored members, and those CREST members who have appointed a voting service provider(s), should refer to their CREST sponsor or voting service provider(s), who will be able to take the appropriate action on their behalf. In order for a proxy appointment or instruction made using the CREST service to be valid, the appropriate CREST message (a 'CREST Proxy Instruction') must be properly authenticated in accordance with Euroclear UK and Ireland Limited's specifications and must contain the information required for such instructions, as described in the CREST Manual. The message, regardless of whether it constitutes the appointment of a proxy or to an amendment to the instruction given to a previously appointed proxy must, in order to be valid, be transmitted so as to be received by the issuer's agent (ID RA19) by the latest time(s) for receipt of proxy appointments specified in this Notice of Annual General Meeting. For this purpose, the time of receipt will be taken to be the time (as determined by the timestamp applied to the message by the CREST Applications Host) from which the issuer's agent is able to retrieve the message by enquiry to CREST in the manner prescribed by CREST. After this time, any change of instructions to proxies appointed through CREST should be communicated to the appointee through other means.

CREST members and, where applicable, their CREST sponsors or voting service providers should note that Euroclear UK and Ireland Limited do not make available special procedures in CREST for any particular messages. Normal system timings and limitations will therefore apply in relation to the input of CREST Proxy Instructions. It is the responsibility of the CREST member concerned to take (or, if the CREST member is a CREST personal member or sponsored member or has appointed a voting service provider(s), to procure that his CREST sponsor or voting service provider(s) take(s)) such action as shall be necessary to ensure that a message is transmitted by means of the CREST system by any particular time. In this connection, CREST members and, where applicable, their CREST sponsors or voting service providers are referred, in particular, to those sections of the CREST Manual concerning practical limitations of the CREST system and timings.

The Company may treat as invalid a CREST Proxy Instruction in the circumstances set out in Regulation 35(5) (a) of the Uncertificated Securities Regulations 2001, as amended.

Corporate Representatives

Any corporation that is a member can appoint one or more corporate representatives who may exercise on its behalf all of its powers as a member provided that they do not do so in relation to the same shares.

Total Voting Rights

As at 1 October 2018 (being the latest practicable date before publication of this Notice), the Company's issued share capital comprised 61,945,941 Ordinary Shares of 10 pence each. As at the date of this Notice, no shares are held by the Company in treasury. Each Ordinary Share carries the right to one vote at a general meeting of the Company and, therefore, the total number of voting rights in the Company as at 1 October 2018 is 61,945,941. The Company's website, referred to above, will include the contents of this Notice, information on the number of shares and voting rights and, if applicable, any shareholders' statements, shareholders' resolutions or shareholders' matters of business received by the Company after the date of this Notice.

Questions

Under section 319A of the Act, the Company must cause to be answered at the Annual General Meeting any question a member asks relating to the business being dealt with at the Annual General Meeting unless answering the question would interfere unduly with the preparation for the Annual General Meeting or involve the disclosure of confidential information; the answer has already been given on a website in the form of an answer to a question; or it is undesirable in the interests of the Company or the good order of the Annual General Meeting that the question be answered.

Requisition Rights

Under section 527 of the Act, members meeting the threshold requirements set out in that section have the right to require the Company to publish on its website a statement setting out any matter relating to: (i) the audit of the Company's Accounts (including the auditor's report and the conduct of the audit) that are to be laid before the Annual General Meeting; or (ii) any circumstances connected with an auditor of the Company ceasing to hold office since the previous meeting at which annual accounts and reports were laid in accordance with section 437 of the Act. The Company may not require the members requesting any such website publication to pay its expenses in complying with sections 527 or 528 of the Act. Where the Company is required to place a statement on its website under section 527 of the Act, it must forward the statement to the Company's auditor not later than the time when it makes the statement available on the website. The business which may be dealt with at the Annual General Meeting includes any statement that the Company has been required under section 527 of the Act to publish on its website.

Voting at the meeting

In order for the voting preferences of all shareholders including those who cannot attend the meeting but who validly appoint a proxy, to be taken into account, a poll will be conducted on all resolutions at the Annual General Meeting this year. Each shareholder and proxy present at the meeting will be invited to complete a poll card indicating how they wish to cast their votes in respect of each resolution. The results of the voting will be posted on the Company's website as soon as practicable after the meeting. Except as provided above, members who have general queries about the Annual General Meeting should call Equiniti registrars on 0371 384 2290. If calling from overseas, please call the Equiniti overseas helpline number of +44 121 415 7047. Lines open 8.30am to 5.30pm, Monday to Friday (excluding UK public holidays). No other methods of communication will be accepted. You may not use any electronic address provided either in this Notice of Annual General Meeting, or any related documents (including the proxy form) to communicate with the Company for any purposes other than those expressly stated.

NOTES

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