Pioneering animal genetic improvement to help nourish the world

## **Interim Results**

Half Year ended 31 December 2023

Challenging Markets; Management Actions Taken





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# Overview & Headlines

Jorgen Kokke Chief Executive Officer





## **CEO Overview**

#### Challenging markets, we are accelerating delivery of our strategic priorities

Continued growth in porcine, with more stable growth in China

- PIC ex-China continuing to grow, gaining market share
- PIC China: Commercial progress winning new royalty customers

#### 

Deliver successful commercialisation of PRP gene edit

- US FDA: Phenotypic and Genotypic Durability studies accepted, dialogue shifting to post-product approval compliance
- Commercialisation plans on track



Drive greater value from bovine

- Value Acceleration Programme underway
- Resource optimisation and embedding commercial excellence for improved financial performance



Continue to generate returns from R&D investments

- R&D strategic review completed
- Tremendous R&D capabilities; sharper focus on most attractive opportunities



## **FY24 H1 Headlines**



Financial performance<sup>1</sup>

Revenue

£333.6m

(-5%)

Adj. profit before tax

£29.2m

(-31%)

Adj. operating profit

£38.1m

(-21%)

Interim dividend maintained

10.3p

## **Our Markets - Porcine**

Our business: 

(a)







	Customer landscape	Impact on our business	
NORTH AMERICA	<ul> <li>Slight breeding herd decline; net increase in production</li> <li>Worst producer losses since 2008-2010 Financial Crisis</li> </ul>	<ul> <li>PIC NAM performed robustly during the period</li> <li>Trading insulated by high royalty penetration</li> </ul>	
LATIN AMERICA	<ul> <li>Good producer margins in Brazil</li> <li>Mexican producers saw margins tighten on low prices</li> <li>Argentina instability challenging for local producers</li> </ul>	<ul> <li>PIC LATAM performed robustly during the period</li> <li>Trading insulated by high royalty penetration</li> </ul>	
EUROPE	<ul> <li>Significant pork production contraction in prior periods resulted in higher prices</li> <li>Producers generally operated at positive margins</li> </ul>	<ul> <li>PIC Europe performed strongly during the period</li> <li>Particularly strong gains in Spain and Germany driven by royalty contract volume growth</li> </ul>	•
CHINA / ASIA	<ul> <li>Weak China prices, producers suffering losses</li> <li>Elsewhere in the region, continued ASF¹ outbreaks impacted producer profitability</li> </ul>	<ul> <li>PIC China had a challenging period of trading</li> <li>Low Chinese producer confidence led to delayed restocking</li> <li>Positive profit growth ex-China</li> </ul>	



## **Our Markets - Bovine**

Our business: 

(a)







	Customer landscape	Impact on our business	
NORTH AMERICA	<ul> <li>Low milk prices drove a contraction in production</li> <li>Strong beef prices, US beef cow numbers at lowest level since 1950s</li> <li>Tenuous recovery in producer profitability in the period</li> </ul>	<ul> <li>Resilient ABS NAM profits in the period</li> <li>Lower US volumes partially offset by growth in IntelliGen third party business</li> </ul>	
LATIN AMERICA	<ul> <li>Beef demand stabilised in Brazil whilst milk production continued to recover</li> <li>Mexico beef production reached record levels</li> <li>Periods of producer profit and loss during the period</li> </ul>	<ul> <li>ABS LATAM performed robustly in the period</li> <li>Brazil profit relatively stable year on year, from a lower base</li> </ul>	<b>(+</b> )
EUROPE	<ul> <li>Both milk production and prices declined</li> <li>Beef production fell but prices held firm on limited supply</li> <li>Producer margins were under pressure during the period</li> </ul>	ABS EMEA solid growth in volumes     Lower profit performance reflecting IntelliGen having high prior year compare	
CHINA / ASIA	<ul> <li>Milk prices below breakeven for most Chinese producers</li> <li>Double-digit decline in the Chinese dairy herd</li> <li>Strong milk prices in India helped maintain producer margins despite input price rises</li> </ul>	<ul> <li>ABS China had a very challenging period, significant dairy conventional and Sexcel volume declines</li> <li>Good growth in IntelliGen third party sexing in Thailand and India</li> </ul>	



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# **Financial Results**

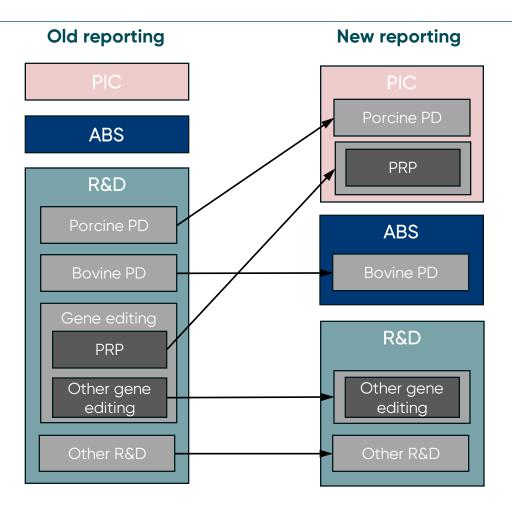
Alison Henriksen Chief Financial Officer





## **R&D Reporting Change**

### No change to group adjusted profit or operational management



#### Change in R&D segmentation

 Goal: Clearer expression of R&D costs, better alignment of the costs and opportunities of doing business with the business divisions

#### **Product development costs**

- Product Development costs will now be allocated to divisional P&Ls, having previously been reported within the R&D division
- PIC product development costs include production (e.g. elite farm costs and PRP commercialisation costs), supply chain, genetic development costs and technical services
- ABS product development costs include the cost of maintaining our herds and biosystems engineering

#### Gene editing costs

- PRP production and commercialisation costs will now be reported within PIC as noted above
- Research into other gene edit traits and regulatory costs will remain in R&D under "Gene Editing"

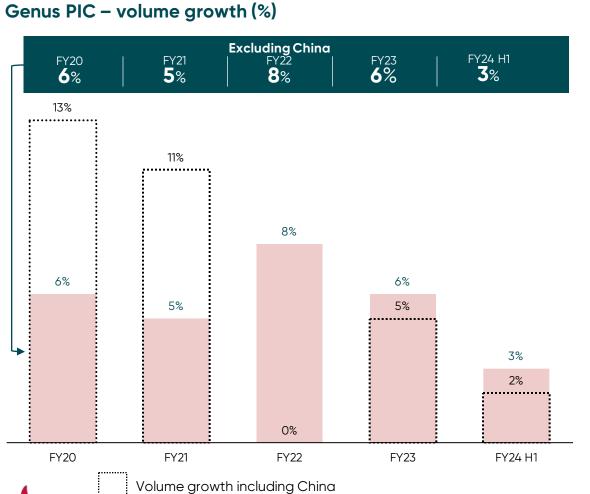
#### Other R&D

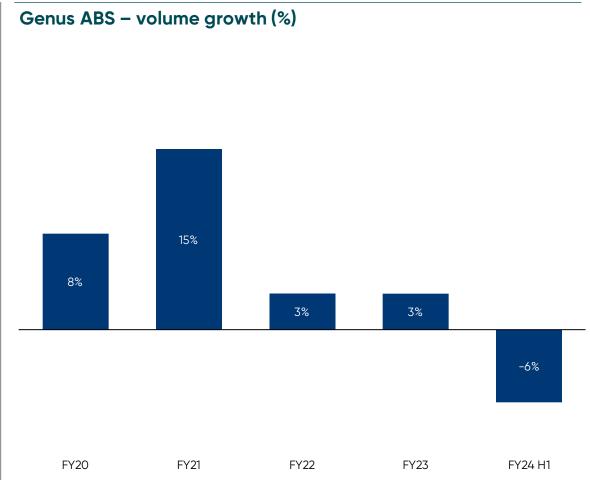
 Other R&D costs (such as reproductive biology, genome science and bioinformatics) remain in R&D



## **Volume Growth**

#### Adverse volume trends in China and several Bovine markets



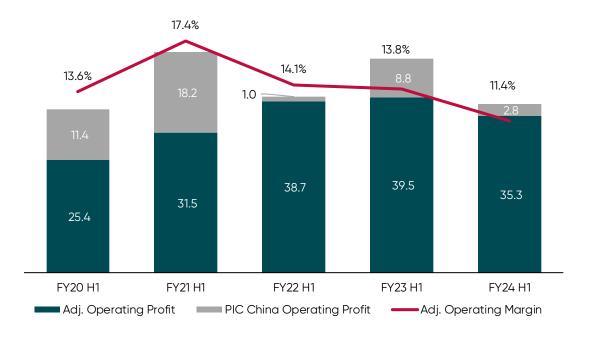


## **Genus Adjusted Profit Performance**

£M	FY24 H1 actual	FY23 H1 actual	% Change actual	% Change constant <sup>1</sup>
Genus PIC	51.4	59.8	(14)%	(10)%
Genus ABS	7.3	10.1	(28)%	(15)%
Operating units	58.7	69.9	(16)%	(11)%
R&D	(11.3)	(13.1)	14%	8%
Central	(9.3)	(8.5)	(9)%	(16)%
Adj. operating profit <sup>2</sup>	38.1	48.3	(21)%	(17)%
Adj. profit before tax	29.2	42.2	(31)%	(26)%
Adjusted earnings per share (pence)	33.3	48.8	(32)%	

## Genus adjusted operating profit<sup>2</sup> £m

Half year results



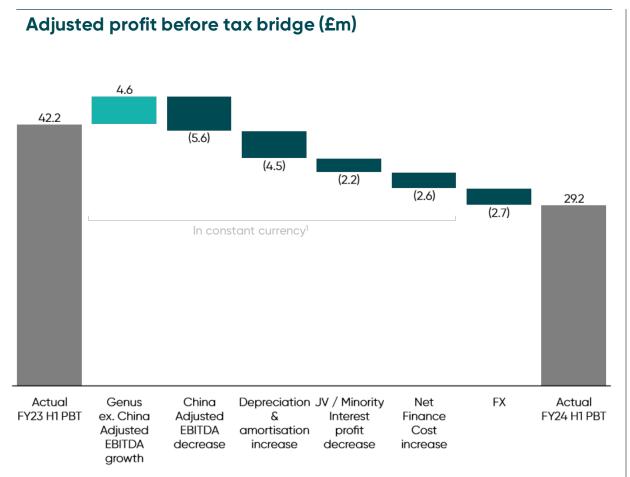
- Difficult first half trading, mitigating actions taken
- Volume trends key driver of results
- Margin diluted by ABS and China results



Constant currency percentage movements in this presentation are calculated by restating the results for the half year ended 31 December 2023 at the average exchange rates applied to adjusted operating profit for the year ended 30 June 2023

<sup>2.</sup> Operating profit and Operating Margin represents adjusted operating results including joint ventures

## **Drivers of Adjusted Profit Performance**



#### Genus ex-China

• Genus ex-China grew adjusted EBITDA by £4.6m or 10% year on year<sup>2</sup>

#### China

- China trading has been challenging for both PIC and ABS; PIC China EBITDA decreased £2.8m (29% decrease<sup>2</sup>), ABS China EBITDA down £2.8m (55% decrease<sup>2</sup>)
- Medium-term opportunity undiminished despite cyclical downturns in both porcine and dairy

#### Depreciation, joint venture income & net finance costs

- Depreciation & Amortisation costs £4.5m higher year on year, driven predominantly by new farm leases in China
- Joint Venture income decreases in Brazil and in China
- Net Finance costs £2.6m higher which is predominately a function of higher interest rates (+181 basis points) over the period



- Bridge items are in constant currency calculated by restating the results for the half year ended 31 December 2023 at the average exchange rates applied to adjusted operating profit for the year ended 30 June 2023. The FX difference is then shown separately
- 2. All figures are derived in constant currency unless otherwise stated

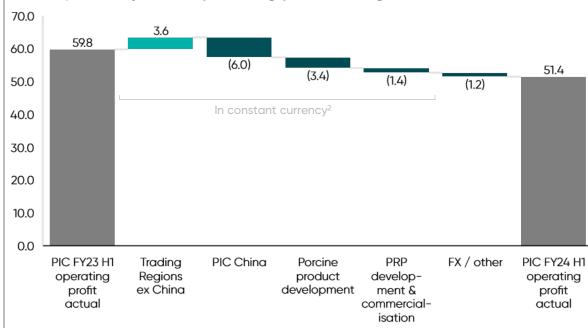
## **Genus PIC**



#### Adjusted operating profit<sup>1</sup> results

	FY24 H1 actual	FY23 H1 actual	% Change	
	£m	£m	Actual Currency	Constant Currency
Revenue	175.8	188.0	(6)%	(1)%
Adjusted operating profit <sup>1</sup>	51.4	59.8	(14)%	(10)%
Adjusted operating margin <sup>1</sup>	26.7%	28.2%	(1.5)pts	(1.8)pts





- PIC trading regions ex-China delivered a robust performance, growing operating profit by £3.6m, or 5% year on year (constant currency)
- £6.0m decrease in PIC China adjusted operating profit primarily due to lower third-party royalty income (£1.6m), start-up costs of LuoDian farm (£2.0m) and lower by-product recovery of supply chain costs (£1.4m)
- Product development £3.4m higher due to expansion into Atlas farm and Aurora re-population



Adjusted operating profit includes joint ventures, Adjusted operating margin excludes joint ventures

Bridge items are in constant currency calculated by restating the results for the half year ended 31 December 2023 at the average exchange rates applied to adjusted operating profit for the year ended 30 June 2023. The FX difference is included within FX / Other

## **Genus PIC**





#### Adjusted operating profit<sup>1</sup>

-10%, 0% ex. China



#### **North America**

- +1%
- Royalty revenue growth of +2%
- Lower volume -2%
- Highly resilient performance, 97% volumes under royalty

#### **Latin America**

+1%

- Royalty revenue growth of +6%
- Volume growth of +4%
- Argentina hyper-inflation impacted Agroceres JV profit -£1.0m

#### **EMEA**

+26%

- Royalty revenue growth of +13%
- Volume growth of +12%
- Very strong performance, particularly in Spain and Germany

#### Asia

-50% +5% ex. China

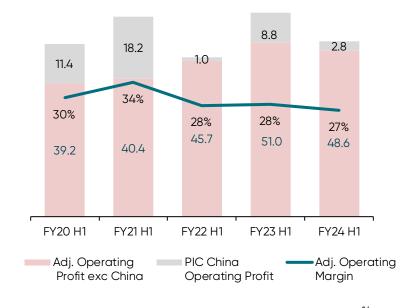
- Lower royalty revenue -13%
- Lower volume -9%
- China impacted by higher supply chain costs as well as lower by-product revenue & third party royalty income
- Philippines profits grew +5%; other Asian franchises +4%

#### Royalty revenue

+2%, +5% ex. China

#### Genus PIC adj. operating profit £m

Half year results, actual currency<sup>2</sup>





- Constant currency
- 2. Adjusted operating profit includes joint ventures, Adjusted operating margin excludes joint ventures

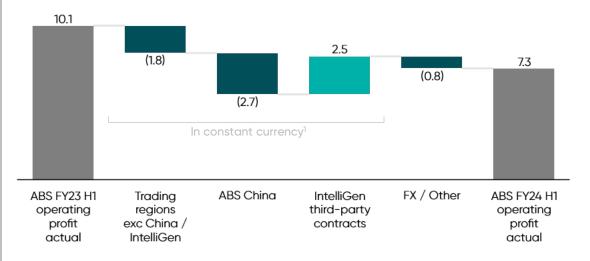
## **Genus ABS**



#### Adjusted operating profit results

	FY24 H1 actual	FY23 H1 actual	% Change	
	£m	£m	Actual Currency	Constant Currency
Revenue	157.8	162.2	(3)%	3%
Adjusted operating profit	7.3	10.1	(28)%	(15)%
Adjusted operating margin	4.6%	6.2%	(1.6)pts	(1.1)pts

#### Half year adjusted operating profit bridge (£m)



- Challenging trading in all regions, especially China
- Management action taken to rationalise production and deliver cost efficiencies, £10m annualised savings
- £1.3m of cost savings realised in FY24 H1; a further £5.0m to be realised in FY24 H2. Restructuring costs of £2.9m recognised in Exceptionals in FY24 H1
- Further actions being taken in FY24 H2 that will deliver additional benefits in FY25



Bridge items are in constant currency calculated by restating the results for the half year ended 31 December 2023 at the average exchange rates applied to adjusted operating profit for the year ended 30 June 2023. The FX difference is included within FX / Other

## **Genus ABS**



#### Adjusted operating profit<sup>1</sup>

-15%
-28% in actual currency



#### **North America**

- -2%
- Total volume growth -6%, sexed volumes +4%, beef -7%
- Significant price and cost actions taken
- +24% increase in cows on long-term GeneAdvance contracts

#### **Latin America**



- Total volume growth -7%, sexed volumes +11%, beef -7%
- Brazil profit down 3%, action included a 15% reduction in Brazilian embryo production costs

#### **EMEA**



- Total volume growth +4%, sexed volumes +13%, beef +3%
- Lower profit performance reflecting timing of IntelliGen upgrades with third party customers in the prior year

#### Asia



- Total volume growth -12%, sexed volumes -14%
- Strong profit growth in India from IntelliGen expansion
- New IntelliGen win in Thailand

#### Sexed volume

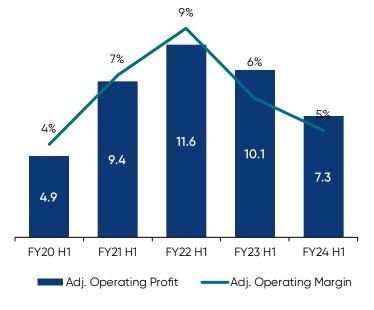


#### **Beef volume**



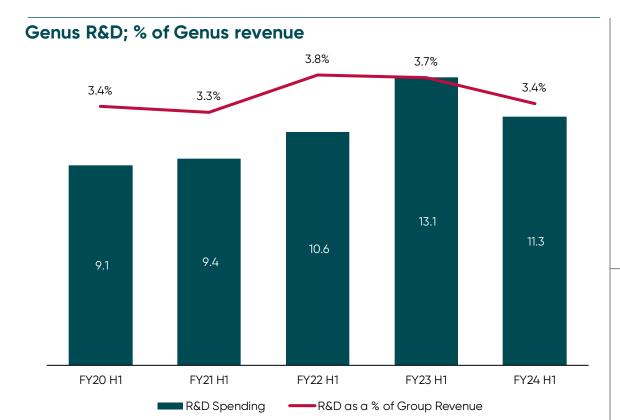
#### Genus ABS adj. operating profit £m

Half year results, actual currency





## Genus R&D and Product Development



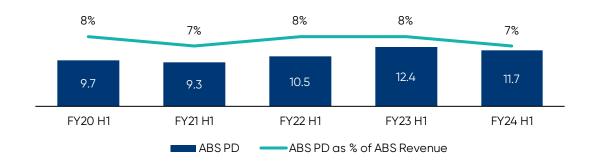
• R&D expenditure lower as a percentage of Group revenue; annual savings of £5m expected in FY25 as a result of strategic review

#### Porcine Product Development; % of porcine revenue



• Rising PIC PD costs as a percentage of revenue caused by PRP commercialisation costs and running costs of our new Atlas facility

#### **Bovine Product Development; % of bovine revenue**





## **Statutory Income**

	FY24 H1 actual	FY23 H1 actual	Change actual
	£m	£m	£m
Adjusted operating profit	33.0	41.2	(8.2)
Net IAS 41 valuation mvmt on biological assets	2.6	(17.2)	19.8
Amortisation of acquired intangible assets	(2.9)	(4.8)	1.9
Share-based payments	(3.9)	(2.3)	(1.6)
Exceptional items	(7.5)	(2.2)	(5.3)
Operating profit	21.3	14.7	6.6
Share of post-tax profit of JVs and associates	5.3	6.4	(1.1)
Other gains and losses	(3.4)	_	(3.4)
Net finance costs	(8.9)	(6.1)	(2.8)
Profit before tax	14.3	15.0	(0.7)
Taxation	(4.0)	(3.0)	(1.0)
Profit after tax	10.3	12.0	(1.7)

# Statutory profit before tax £14.3m (FY23 H1: £15.0m)

#### Non-cash impacts

• £2.6m increase in net IAS 41 biological assets (FY23 H1: £17.2m decrease)

#### **Exceptional items**

- £7.5m expense (FY23 H1 £2.2m) primarily from litigation legal costs and ABS restructuring
- In January 2024, US and NZ litigations with ST were settled outside the courts

#### **Net finance costs**

• £8.9m expense (FY23 H1 £6.1m), driven by higher interest rates, as expected

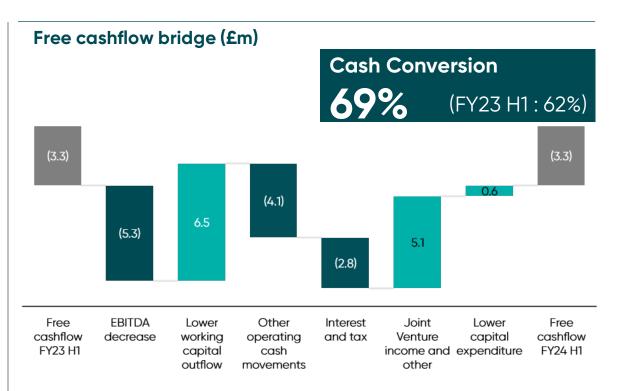
#### **Taxation**

- Adjusted tax rate of 25.0% (FY23 H1: 24.2%); up due to full year impact of UK tax rate increase to 25% and increased profit mix in higher tax rate jurisdictions
- Statutory tax rate of 27.7% (FY23 H1: 20.0%)



## Free Cash Flow

FY24 H1 performance		
	FY24 H1	FY23 H1
	actual	actual
	£m	£m
Adjusted operating profit ex. JV	33.0	41.2
Depreciation and amortisation	21.3	18.4
Adjusted EBITDA	54.3	59.6
Working capital	(16.9)	(23.4)
Biological assets	(7.2)	(6.7)
Pension deficit repair	(0.3)	(0.6)
Exceptional items and other	(7.1)	(3.2)
Cash generated by operations	22.8	25.7
Cash conversion %	69%	62%
Interest and tax paid	(16.8)	(14.0)
Capital expenditure	(14.4)	(15.0)
Joint venture income and other	5.1	_
Free cash flow	(3.3)	(3.3)
Acquisitions and investments	0.6	(3.2)
Dividends	(14.2)	(14.2)
Net cash flow (before debt repayments)	(16.9)	(20.7)



- Lower EBITDA impacted by China and FX
- Lower working capital outflow, mainly inventory
- Capex £14.4m as planned, full year approximately £30m. £10m reduction expected in FY25

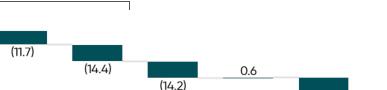


## **Solid Financial Position**

#### Leverage expected to be similar at June 2024

#### NET debt bridge £m (195.8)(250.1)Net Net Debt: Debt: **EBITDA EBITDA** 1.6x 2.1x





#### Opening Net Debt 1 July 2023

Operating cash flow

22.8

Interest, tax paid and

other

Capital Expenditure Dividends Investments New leases

& other non-cash

(36.5)

FX on debt held

(0.9)

Closing Net Debt 31 December 2023



- Net Debt to EBITDA as defined under our debt facility agreement
- Adjusted earnings coverage is equal to adjusted earnings per share (after tax) divided by dividends per share, on a rolling 12 month basis

#### **IFRS 16 leases**

• Increase of £36.0m mainly due to two additional farms in China: Ankang and LuoDian

#### Headroom

- £89m headroom at 31 December 2023
- Net Debt:EBITDA<sup>1</sup> 2.1x; similar level expected at June 2024; bank covenant at 3x
- Credit facilities term to August 2025

#### Interim dividend maintained

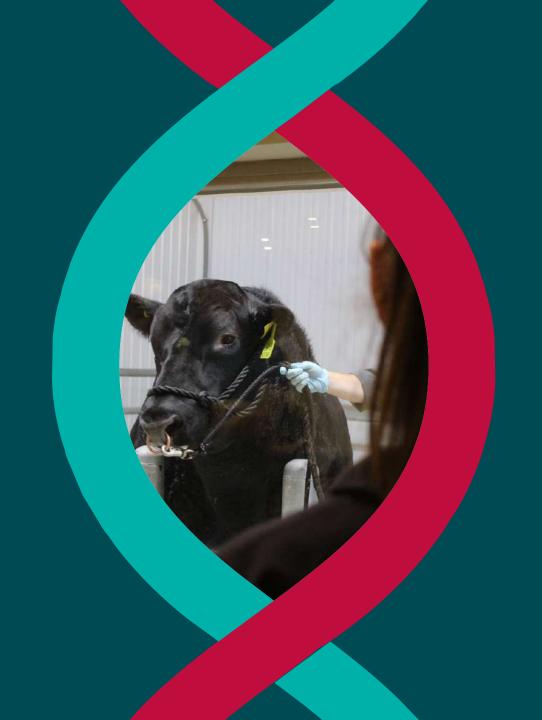
Adjusted earnings coverage<sup>2</sup> 2.2x

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# **Strategy & Outlook**

Jorgen Kokke Chief Executive Officer

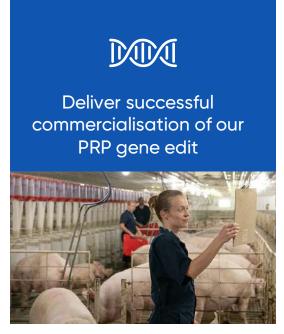


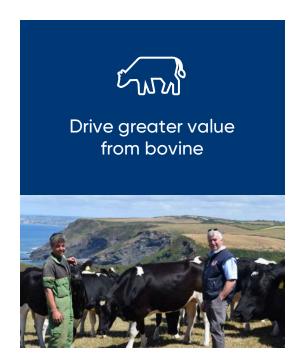


## **Our Strategic Priorities**

## Leveraging the investments made in innovation and supply chain







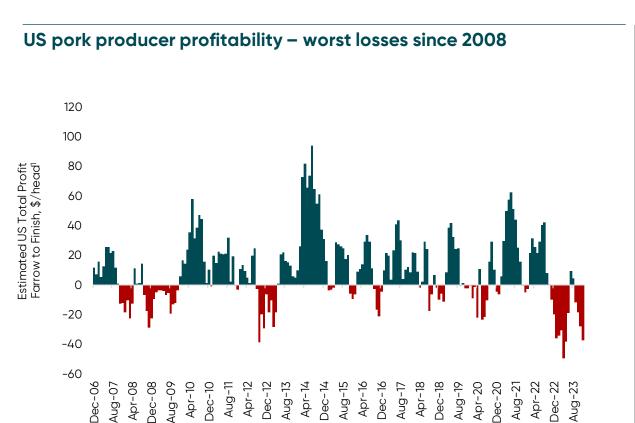


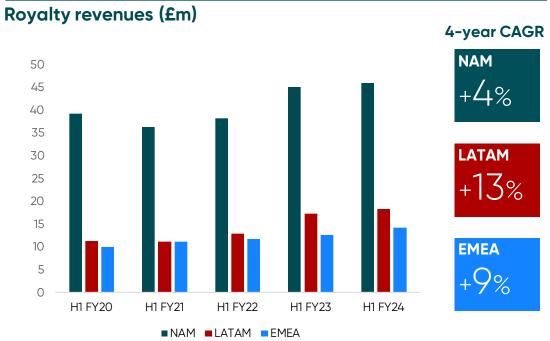


## PIC ex-China: Continued Growth

#### Royalty model demonstrating its strength in challenging producer environments







- PIC NAM highly resilient despite market conditions
- The royalty model generates more stable revenues and earnings in the developed markets of NAM, LATAM and EMEA
- High penetration of the royalty model in NAM (97% of volumes), LATAM (82%) and EMEA (80%)



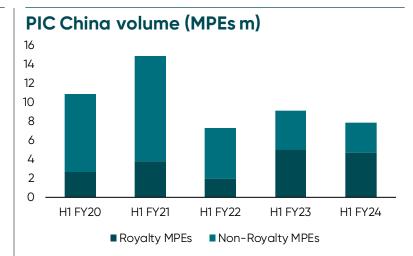
## **PIC China**

#### Commercial progress winning royalty customers



# Pig price to corn price ratio<sup>1</sup> 24 12

2022



## Success of enhanced commercial focus; new royalty customers won in H1



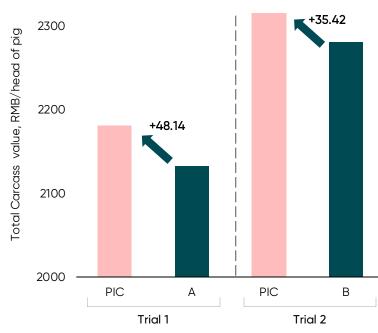
 New customers are Top 30 Chinese producers





 More new royalty customers signed in January 2024

#### PIC genetics outperforming in trials



 Recent customer trial data has demonstrated the total carcass value<sup>2</sup> of PIC pigs is meaningfully higher than competitor lines in China



2020

2021

. Market analysts and policymakers in China often view 6:1 as a "normal" level for the pig price to corn price ratio. Higher values are considered an indicator of profitability

2024

2. Total carcass value = total value of pork cuts + total value of by-products

2023

## PRP Gene Edit: FDA Regulatory Progress Continues

Working through post-product approval compliance procedures, PRP approval expected in FY25

Submitted and accepted

Submitted and accepted





#### 2021

#### Phase I - Product Claim and Methods

- 1. Product Definition
- 2. Molecular Characterisation of Altered DNA

#### 2022

#### Phase II - Molecular Characterization

- 1. Molecular Characterization of Edited Animals
- Submitted and accepted

#### 2023-2024

#### Phase III - Animal Characterization

- 1. Phenotypic Characterization
- 2. Phenotypic Durability<sup>1</sup>
- 3. Genotypic Durability<sup>1</sup>
- 4. Food Safety
- 5. Environmental Safety
- 6. Post-product approval compliance / monitoring of production facilities

#### Submitted and accepted

Submitted and accepted

Submitted and accepted

Submitted and accepted

Submitted

Submitted

#### Working with FDA post-product approval compliance team



Genus submitted validation plans for the tests used to confirm the presence of the gene edit



Working with FDA's post-product approval compliance team to finalise the validation process and compliance monitoring



Genus is ensuring the right systems and procedures are in place to meet these post-approval data submission requirements



FDA inspectors will audit Genus's PRP facilities to ensure they meet the quality and production standards as submitted

#### FY25

**Anticipated FDA product approval** 



## **Projected PRP Regulatory Progress**

No change anticipated to our commercialisation timeline or financial projections







The review and approval of PRP for use in human consumption is through new regulatory processes. Timelines for the regulatory processes are difficult to determine. The timelines noted above are indicative and may vary based upon additional regulatory questions raised under the review process or varying response times from regulators around the world

## Drive Greater Value From Bovine: ABS Value Acceleration Programme

#### Data driven approach actioned





**Objectives** 

Accelerate value creation through commercial excellence and resource redeployment

Improve margin, ROIC and cash generation



**Actions** 

Leadership structure change, integrating dairy, beef and IntelliGen Optimising resource deployment. Focus on most profitable markets and customers Integrate and simplify the supply chain to increase efficiency and strengthen S&OP capability

Enhancing margin via pricing excellence and differentiated products



**Outcomes** 

Improved go-to-market productivity

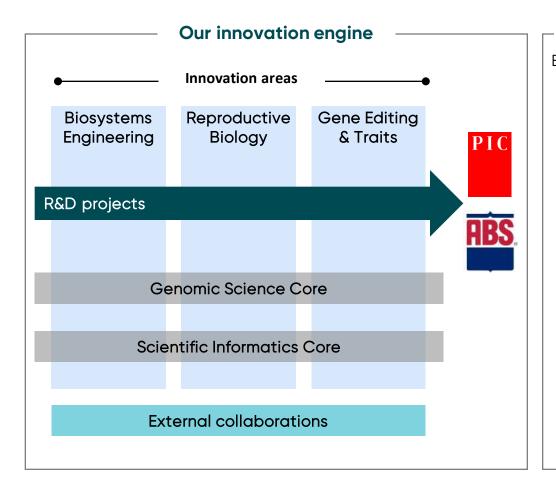
Better cost leverage

Better margins and higher cash flows



## Leverage Our R&D Platform; Strategic Review Completed

Sharper focus on the most attractive R&D projects that meet our strategic and commercial goals



#### Completed R&D strategic review...

Evaluated all early-stage R&D projects using 4 criteria



Alignment to our strategy



Market attractiveness



Ability to deliver



Portfolio balance

#### ...for a sharpened focus



- Strengthen sexed semen platform
- Advance disease resistant traits
- Accelerate genetic gain



Improved innovation process & governance



Greater balance between species and breakthrough vs incremental



## **Summary and Outlook**



Challenging trading; significant actions taken



ABS value acceleration programme underway

R&D strategic review completed



Winning new royalty customers in China



PRP progress; FDA approval expected in FY25



- Challenging conditions in several markets expected to continue in 2024, particularly China
- Solid growth in H2 expected from PIC North America and Europe
- Better performance in H2 expected from ABS due to higher cost savings
- FY24 adjusted profit before tax expected to be at least £58m





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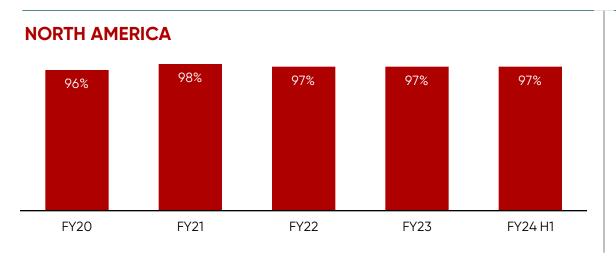
# **Appendices**



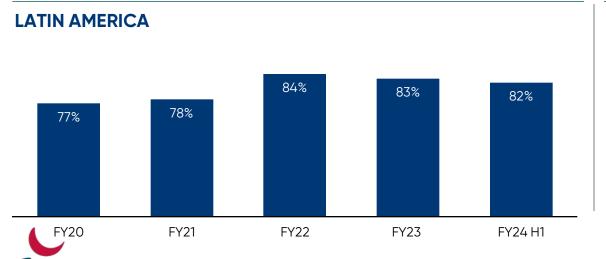


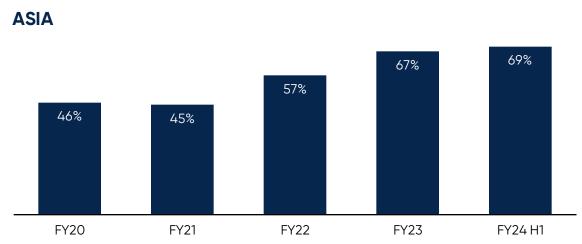
## **Proportion of Total Porcine Volumes Under Royalty**





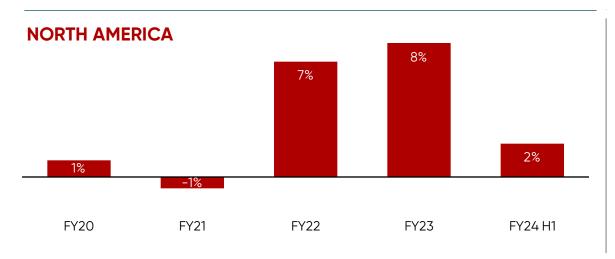


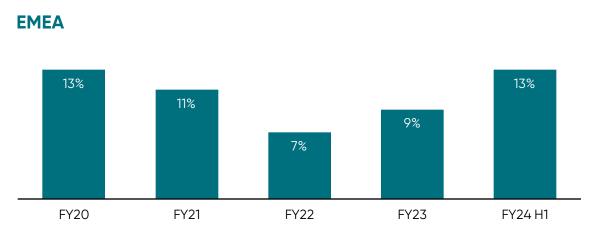


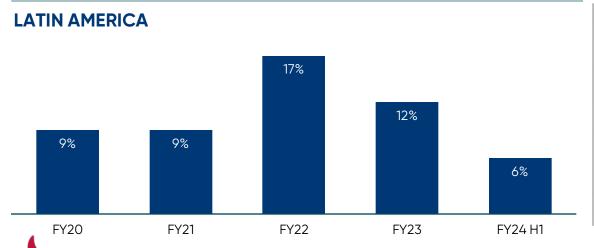


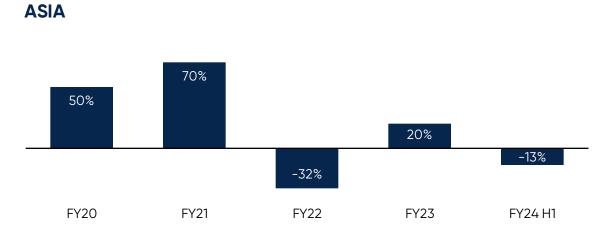
## **Porcine Royalty Revenue Growth**











## Restatement For Product Development and PRP

	FY24 H1					FY23 H1			
£m	_	Product evelopment estatement actual	PRP restatement actual	Restated actual	Previous reporting method actual	Product development restatement actual	PRP restatement actual	Restated actual	
PIC	71.1	(14.8)	(5.1)	51.4	76.8	(13.0)	(4.0)	59.8	
ABS	19.0	(11.7)	0.0	7.3	22.5	(12.4)	0.0	10.1	
R&D	(42.9)	26.5	5.1	(11.3)	(42.5)	25.4	4.0	(13.1)	
Central	(9.3)	0.0	0.0	(9.3)	(8.5)	0.0	0.0	(8.5)	
Adjusted operating profit inc JV	38.1	0.0	0.0	38.1	48.3	0.0	0.0	48.3	
Porcine product development	(14.8)	14.8	0.0	0.0	(13.0)	13.0	0.0	0.0	
Bovine product development	(11.7)	11.7	0.0	0.0	(12.4)	12.4	0.0	0.0	
Gene editing	(8.4)	0.0	5.1	(3.2)	(7.7)	0.0	4.0	(3.7)	
Other research and development	(8.1)	0.0	0.0	(8.5)	(9.4)	0.0	0.0	(9.4)	
Total R&D	(42.9)	26.5	5.1	(11.3)	(42.5)	25.4	4.0	(13.1)	



## **Financial Results**

	FY24 H1	FY23 H1	% Change	% Change
	actual £m	actual £m	actual	constant
Revenue	333.6	350.2	(5)%	1%
Adjusted operating profit inc. JV	38.1	48.3	(21)%	(17)%
Net finance costs	(8.9)	(6.1)	(47)%	(44)%
Adjusted profit before tax	29.2	42.2	(31)%	(26)%
Adjusted earnings per share (pence)	33.3	48.8	(32)%	(27)%
Dividend per share (pence)	10.3	10.3	-	-



## **Exchange Rate Sensitivity**

- Genus's geographic profile can lead to translational currency impacts
- We monitor key rates against GBP
- Latest spot rates would indicate a headwind of circa ~£6m for FY24 compared with average FY23 rates

	FY23 Average <sup>1</sup>	FY24 H1 Average	Spot at 20 Feb 2024	Profit Sensitivity £m <sup>2</sup>
Mexican Peso	22.7	22.7	21.5	2.0
Euro	1.15	1.16	1.17	1.6
Brazilian Real	6.19	6.18	6.22	1.5
Chinese Yuan	8.38	10.80	9.08	1.6
Russian Rouble	85.1	117.1	115.7	1.0
US Dollar	1.24	1.28	1.26	0.7



<sup>1.</sup> Weighted average exchange rate based on operating profit inc JV income

<sup>12</sup> month operating profit impact given a +/- 10% movement in exchange rate, based on FY23 results. FY24 sensitivity may differ based on current trading.

## Glossary

**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.

Boar A male pig.

**CRISPR-Cas 9** Technology which accurately targets and cuts DNA to produce precise and controllable changes to the genome.

 $\mathrm{CO}_{\mathrm{2e}}$  measure used to compare the emissions from various GHGs based on their global-warming potential, by converting amounts of other gases to the equivalent amount of carbon dioxide with the same global warming potential

Farrow When a sow gives birth to piglets.

**FCR** Feed conversion ratio

**FDA** The United States Food and Drug Administration

**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. This is also referred to as an Elite Farm.

**Genomic bull** A bull which has been assessed through genomic testing. This typically refers to bulls which have not been progeny-tested.

**Genomics** The study of the genome, which is the DNA sequence of an animal's chromosomes.

**GHG** Gases that trap heat in the atmosphere are called greenhouse gases

Gilt A young female pig, which has not yet given birth.

**GGP/GP** Great grandparent/grandparent.

**In vitro fertilisation ('IVF')** The fertilisation of an oocyte (or egg) 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.

**IntelliGen** The technology platform used to process sexed bovine semen for ABS and third-party customers and commercialised by ABS as Sexcel.

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.

**PRP** PRRS Resistant Pig

PRRSv Porcine Reproductive and Respiratory Syndrome Virus.

**PSY** Pigs per Sow per Year. The average number of pigs weaned per litter multiplied by the average number of litters farrowed per sow per year.

Scope 1 emissions are emissions that result from directly burning fuels or emissions of GHG from sources owned or controlled by Genus

**Scope 2 emissions** are in-direct emissions associated with the use or generation of energy in the form of electricity

**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.

**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.

**Unit** A straw of frozen bull semen or tube/bag of fresh boar semen sold to a customer.

