

Basis of Reporting

For Non-Financial Metrics

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Introduction

About Genus

Genus is a world-leading animal genetics company. We supply high-quality breeding animals with desirable characteristics to farmers, enabling them to produce better quality meat and milk more efficiently to feed the world more sustainably.

Our breeding animals' desirable characteristics include feed efficiency, disease resistance, growth rate, protein and fat content, and fertility. We focus on serving progressive farmers, who are best placed to measure and realise the benefits of superior genetics and technologies.

Sustainability is at the Heart of our Business.

As the global population continues to expand and our climate begins to change, the natural and human systems we rely on to produce our food are under increasing stress.

We believe that animal genetics are core to helping producers meet the increased demands for affordable, nutritious food for all, using fewer resources of water, energy and land, at a fraction of the greenhouse gas emissions of alternative systems.

Through the rapid methods of animal genetic improvement, we have pioneered over many decades, we offer our customers an opportunity for measurable reductions in their greenhouse gas (GHG) emissions, use of water, land and other natural resources. As we transition towards low-carbon solutions to provide our food and as policy makers across the globe introduce taxes and incentives to encourage this, food producers seek low-cost ways to help reduce their animal feed bills, to make their herds more productive, to reduce waste and to ensure food security for a growing global population with growing aspirations.

We believe genomic approaches to animal breeding offer the most cost-effective way to lower GHG emissions. Our approach focuses not only on improved animal performance but also on improved health and wellbeing, which has the potential to reduce the need for antibiotics and veterinary care, something that can be prohibitively expensive for farmers, or in some markets largely absent.

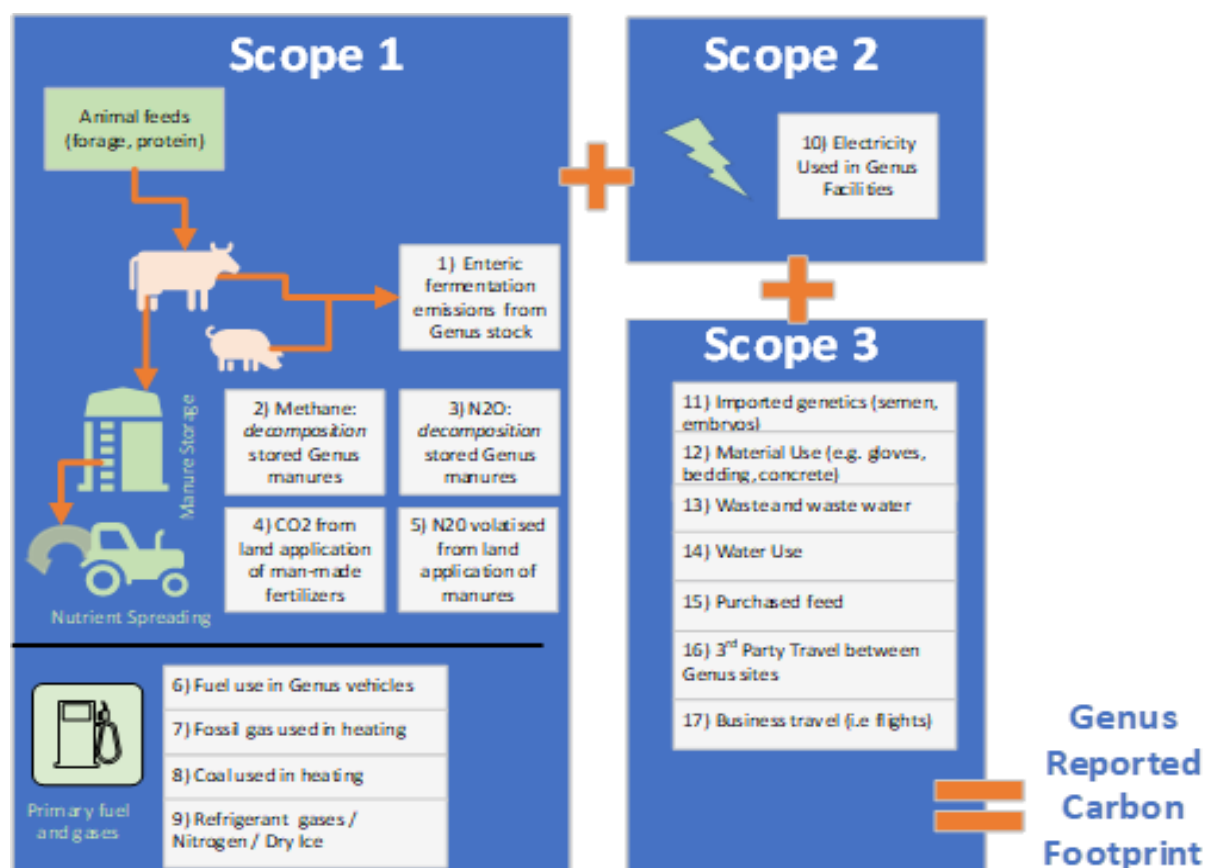
We are pioneering a number of breakthrough technologies, such as gene-editing and advanced reproductive techniques. These offer an immediate and effective response to food security threats such as those posed by novel viruses like porcine reproductive and respiratory syndrome (PRRS), which causes late-term reproductive failure and respiratory disease in pigs.

Scope of Reporting for FY23 (1st July 2022 – 30 June 2023)

The following graphic summarizes the reporting boundaries, scope and exclusions relating to the performance data shown in the Report. The tables in section 2 of this document offer detailed definitions of reporting boundaries, methods of calculations and exclusions. Section 3 of the document presents our re-baselining policy: we will apply this policy following material changes to company emissions or intensity metrics.

Section 1: Conceptual Model: System Boundary

Genus reports its carbon footprint in accordance with the Corporate Accounting and Reporting Standard (Revised Edition: WRI). We report carbon emissions based on the ‘Equity Control approach’ consistent with international financial accounting standards and omit some livestock held by third parties where we have limited or no control over operating policies. We have determined and reported the emissions we are responsible for within this boundary and believe there are no material omissions for Scope 1 & 2 emissions. The greenhouse gas emissions that have been reported and subject to assurance include carbon dioxide (CO₂), nitrous oxide (N₂O), biogenic methane (CH₄) and refrigerants (F-gases) that are all reported on a carbon dioxide equivalent (CO_{2e}) basis to enable a consistent comparison of our emissions across the years and against our peers.



Collection of data in respect of corporate emissions are collected from global company respondents in a consistent manner and validated using historical and other comparison. Emissions which derive from joint ventures are reported at a level equivalent to Genus' investment in the venture to avoid double-counting. Genus may apply contract or other controls as necessary to clarify ownership of and responsibility for emission reporting, where these form part

of a named emissions reduction project, offsetting (insetting) scheme or otherwise: principles contained within the GHG Protocol for Project Accounting will apply to relevant projects.

Section 2: Countries for which we report emissions.

Genus is a global genetics company, and we include emissions from all our operations in the following countries:

- Argentina
- Australia
- Brazil
- Canada
- Chile
- China
- Colombia
- France
- Germany
- India
- Ireland
- Italy
- Mexico
- Mozambique
- Netherlands
- New Zealand
- Philippines
- Poland
- Portugal
- Romania
- Russian Federation
- South Africa
- Spain
- Ukraine
- United Kingdom of Great Britain and Northern Ireland
- United States of America
- Uruguay

We have not excluded any country where we operate from our footprint. The operational footprint includes our offices, storage and distribution warehouses and farms that act as the hubs for multiplying our elite genetics. Our farms are generally very small, with little land managed directly by Genus for our livestock or growing arable crops.

Section 3: Re-baselining Policy

Genus recognises that a prerequisite for our stakeholders to be able to make meaningful comparisons between years is a consistent data set over time (i.e., with like-for-like comparison). This requires our emissions to be measured using a consistent methodology, inventory boundary and business activities. Changes in emission factors may also be deemed material.

A base year is a reference point in the past with which current emissions can be compared. In order to maintain the consistency between data sets, base year emissions for Genus will need to be recalculated when structural changes occur in the company or its subsidiary business units that change the inventory boundary (such as acquisitions or divestments). Where these changes impact our business emissions by +/- 10% we will re-baseline our emissions.

In addition, errors in data collection, new information and best practice can materially impact a baseline. We use an independent third-party to assure our greenhouse gas emissions and this should eliminate errors in data collection and reporting, but where new information or changes in best practice occur, we will work with our independent third-party assurance provider to re-baseline.

We may also re-baseline our data when setting new and more ambitious GHG reduction targets. The decision on re-baselining will be taken by the Genus Sustainability Committee.

Section 4: Governance of our Reporting and target setting process.

The Sustainability Committee is a dedicated management committee that reports to the Genus Executive Leadership Team ('GELT') AND Audit and Risk Sub-Committee on sustainability strategy progress, performance and future plans. The Sustainability Committee is chaired by the CEO.

The Sustainability Committee defines the Company's sustainability strategy, reviews policies and practices, monitors external developments and makes recommendations to the GELT and the Board's Audit & Risk Committee on sustainability issues including this related to climate risk and opportunity. It recommends annual goals and initiatives and identifies the key performance indicators for monitoring and reporting the Company's sustainability performance. The committees meet at least three times a year, and the Sustainability Committee and its GELT members sign off the performance and goals and initiatives for each new financial year.

In 2021 the composition of the Committee was reviewed to ensure that sustainability issues including climate change are receiving management oversight at the highest level.

As a result of this review, all members of the Genus Executive Leadership Team as well as the Chairman of the Board's Audit & Risk Committee have been appointed to the Committee, alongside operational leaders and subject-matter experts with accountability for delivering the Group's sustainability objectives including emissions reductions.

Section 5: Our Targets

Net Zero for livestock related emissions:

Our primary intensity ratio is based on our total scope 1 and 2 emissions, which are then normalized by animal weight, which is a key driver of our GHG emissions and our secondary intensity ratio was based on our scope 1, 2 and 3 emissions (expressed in this report as emissions per £ (this is expressed as emissions per £Million turnover in our Annual Report). The use of the secondary carbon intensity ratio has been suspended until a more comprehensive scope 3 footprint has been calculated and verified.

Just over 50% of our emissions relate to non-livestock sources, including emission of 'fossil' derived carbon fuels for travel, and distribution. These offer an absolute reduction opportunity and are targeted accordingly within our zero carbon plans (which include transition of our petrol and diesel fleet vehicles to battery-electric, energy efficiency investment and further development of on-site solar (PV) generation).

Just under 50% of our emissions derive from 'flow' emissions of methane and nitrous oxide which start life as atmospheric carbon dioxide and are taken up by animal feed crops (corn, soy for example) and fed to our animals. These are then re-emitted to the atmosphere through enteric fermentation and manure decomposition throughout the animal's life. Whilst it is not possible to reduce livestock related emissions to zero, our strategy will:

- procure crops with lowest carbon and water footprint (we calculate this using IPCC 2006 Agricultural Sector Guidance and Emission Factors selected from accredited sources)
- consider the efficacy of animal feed supplements within an animal breeding environment for use of feed supplements / probiotics which result in reduced levels of enteric emissions.
- implement methane (biogas) capture and use of cost-effective treatment / use of this resource in power / heat / fuel production.
- provide nutrient inputs to soils, adopting management strategies which minimise volatile losses to atmosphere (or water) and benefit soil biodiversity.
- make use of agricultural lands which we own as a long-term store of soil carbon (in accordance with measurement criteria contained within The GHG Protocol for Project).

Section 6: International Reporting Standards

Genus is committed to reporting our emissions in line with best practice and our legal obligations.

Genus commissioned DNV Business Assurance Services UK Limited to conduct a limited assurance engagement over selected information presented in the Annual Report 2023 for the reporting year ended 30 June 2023. The scope and boundary of our work is restricted to the non-financial metrics included within the Report for the reporting period 2023 and only covers the metrics listed below:

- Total Scope 1 GHG Emissions (TCO₂e) – combustion of fuel, own transport and livestock emissions, land application of manures resulting in nitrous oxide emissions from the land, refrigerant gas losses and fugitive emissions.
- Total Scope 2 GHG Emissions (TCO₂e) – purchased electricity (and renewable generated), steam, heat and cooling
- Total Energy Consumed (kWh)
- Women in Management Roles (%)
- Recordable Injury Frequency Rate (RIFR)

To assess the metrics listed above, DNV used have used Genus's Basis of Reporting for Non-Financial Metrics and we have published their Assurance Statement on our website with their observations and opportunities for improvement. We have used the following globally recognised standards to underpin our reporting processes and data.

1. World Resources Institute/World Business Council for Sustainable Development 'The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard'.
2. DEFRA 'Guidance on how to measure and report your greenhouse gas emissions'.
3. DEFRA 'Environmental Reporting Guidelines: Including mandatory greenhouse gas emissions reporting guidance'.
4. Emissions Factor Data Source IPCC 'Guidelines for National Greenhouse Gas Inventories'
5. DEFRA/DECC 'Conversion Factors for Company Reporting'.

Calculation Methodology

Carbon Intensity Measure(s) Primary Measure				
	Description	Target	Unit of Measure	Notes
Carbon Intensity Measure(s) Primary Measure	<p>We have developed a 'net zero' carbon reduction strategy outlining our plans for emission reduction. To include scope 1, 2 emissions (see separate scope definitions) normalized using animal weight (tonne) at a Genus PLC Global level.</p> <p>This KPI is an intensity-based metric where the numerator is 100% of Genus' operational GHG emissions – scopes 1 and 2, including animal related emissions.</p> <p>The denominator captures the year-end average of monthly animal weight data, where animals refer to Genus' research and breeding herds.</p> <p>The metric is expressed as a three-year rolling average (but we will move to a five-year rolling average as data allows), to better report the underlying trend.</p> <p>Scope 2 emissions are derived from all electricity consumption and can be traced back to billing data.</p> <p>Scope 1 includes all-natural gas and fuel oils consumed with billing/invoice data providing the evidence.</p> <p>Scope 1 includes all F-gases that are used as refrigerants in air-conditioning, heat pumps and fridges and freezers. We do not hold any SF₆ in our estate or use f-gases for fire suppression.</p> <p>For livestock emissions and emissions of nitrous oxide from the soil, these are derived using a proprietary system developed by PROMAR. (See Scope 1 Methane Emissions – Enteric emissions from Genus's livestock & manure management methodology and Scope 1 Methane and Nitrous Oxide Emissions from Manure Management). Once the data has been analysed the raw carbon data is entered into the Ecometrica tool in TCO_{2(e)}.</p>	<p>Genus is committed to a 25% reduction in our primary intensity ratio against our 2019 baseline by 2030 and becoming a net zero GHG emissions business by 2050.</p>	<p>TCO_{2e}Consu/ T animal Weight</p>	<p>DEFRA emission factors and emission factors embedded within the ECOMETRICA system. For enteric methane emissions and nitrous oxide emissions resulting from the spreading of manure to land, we use data and a proprietary model provided by PROMAR following the IPCC methodologies as detailed Scope 1 Methane Emissions – Enteric emissions from Genus's livestock & manure management methodology and Scope 1 Methane and Nitrous Oxide Emissions from Manure Management.</p> <p>The metric is expressed as a three-year rolling average, to smooth out the variability of agricultural data linked to the weather, and other issues linked to managing a biological system.</p> <p>For GHG and Energy, 10 months of actual data and 2 months estimated data is used to calculate the metrics.</p>

Total Energy Consumed (KWh)				
	Description	Target	Unit of Measure	Notes
Total Energy Consumed (KWh)	<p>All fuels (electricity (grid, self-generated renewables, and green certificate backed renewable electricity), natural gas, capture-biogenic gas, heating oil, gas oil/distillate, Propane and LPG, coal (historical because no longer used), road fuels are all tracked back to invoice data, fuel cards, fiscal meters, or our own sub-metering.</p> <p>Using country specific¹, DEFRA, supplier energy mix data to determine emissions and convert from units such as BTUs to KWh</p> <p>¹Country specific data sourced from:</p> <ul style="list-style-type: none"> - The EEA publishes electricity factors for EU countries, found here. - The US EPA publishes electricity factors for the US found here. - The SEAI publishes factors for Ireland, found here. - The RTE publishes the French electricity factor, found here. - The IEA, found here 	No target, although in future years we will report recommendations for improving energy efficiency from the Energy Savings Opportunities Scheme (ESOS) audits, and whether these recommendations are commercially viable.	KWh	<p>This metric is collected and reported to ensure compliance with the companies and limited liability partnerships in complying with the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013 ('the 2013 Regulations') and the Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 ('the 2018 Regulations').</p> <p>See Scope 1 and Scope 2 definition documents for additional detail, because these methodologies are linked. Often the primary energy consumption is used to derive GHG (TCO_{2e}) via the use of an emission factor.</p>

Carbon Intensity Measure(s) Secondary Measure				
	Description	Target	Unit of Measure	Notes
Carbon Intensity Measure(s) Secondary Measure	<p>We have developed a 'net zero' carbon reduction strategy outlining our plans for emission reduction. To include scope 1, 2 & 3 emissions (see separate scope definitions) normalised (turnover(£M) at a Genus PLC Global level.</p> <p>This KPI is an intensity-based metric where the numerator is 100% of Genus' operational GHG emissions – scopes 1 and 2, including animal related emissions.</p> <p>The denominator captures the year-end turnover as reported in the annual accounts.</p> <p>The metric is expressed as a three-year rolling average (but we will move to a five-year rolling average as data allows), to better report the underlying trend.</p> <p>Scope 2 emissions are derived from all electricity consumption and can be traced back to billing data.</p> <p>Scope 1 includes all-natural gas and fuel oils consumed with billing/invoice data providing the evidence.</p> <p>For livestock emissions these are derived using a proprietary system developed by PROMAR. (See Scope 1 Methane Emissions – Enteric emissions from Genus's livestock & manure management methodology).</p>	<p>Genus is committed to a 25% reduction in our primary intensity ration against our 2019 baseline by 2030 and becoming a net zero GHG emissions business by 2050.... offset our residual emissions to net zero by 2050*</p>	<p>TCO_{2e}/ £M</p>	<p>DEFRA emission factors and emission factors embedded within the ECOMETRICA system. For enteric methane emissions we use data provided by PROMAR following the IPCC methodologies.</p> <p>The metric is expressed as a three-year rolling average, to smooth out the variability of agricultural data linked to the weather, and other issues linked to managing a biological system.</p> <p>Our current scope 3 emissions are largely limited to animal feed and business travel. Work is ongoing to improve the completeness and accuracy of our scope 3 GHG footprint.</p>

Scope 1 Methane Emissions – Enteric emissions from Genus’s livestock				
	Description	Target	Unit of Measure	Notes
Scope 1 Methane Emissions – Enteric emissions from Genus’s livestock	<p>For livestock emissions (beef and dairy cows) these are derived using a proprietary system developed by PROMAR. The proprietary PROMAR system has been validated by the Carbon Trust and is widely used across the UK dairy sector to enable large dairy farmers, milk processors and retailers to manage their carbon footprint. 4</p> <p>Measuring carbon emissions from livestock on a farm is not technically feasible because the number of variables that cannot be easily controlled (i.e., weather, movement of the animals, manure management, prevalence of disease etc.). As a using the IPCC guidelines and the 2019 refinements to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, specifically Volume 4, Chapter 10 EMISSIONS FROM LIVESTOCK AND MANURE MANAGEMENT).</p> <p>All animals have unique identification ear tags (a pair of) and these link back to our data systems (for tracking all aspects of the animal’s lives, including their location, when they are born, bought, sold or die of natural causes. Linked to this system is information about their diet and whether they require medical intervention from a vet etc. Data from these systems is then tracked centrally via the D365/Genus One system.</p> <p>Activity data such as feed, energy adjusted milk, fat content, FCR are all calculated for the animals and exported to the PROMAR tool.</p> <p>Once the data has been analysed the raw carbon data is entered into the Ecometrica tool in TCO_{2(e)}.</p> <p>Animal weights are determined at our Whenby site. We have facilities that weigh the animals on a regular basis as they feed or drink water. The data enables a very accurate Feed Conversion Rate (FCR) to be calculated for each cow. The FCR remains representative for the performance of our animals for the rest of their lives, and when combined with the Genomics will be a very good predictor of future progeny performance.</p>	<p>Forms part of the calculation of the primary and secondary carbon intensity measures.</p> <p>Genus is committed to a 25% reduction in our primary intensity ration against our 2019 baseline by 2030 and becoming a net zero GHG emissions business by 2050.... offset our residual emissions to net zero by 2050 *</p>	T CO _{2e}	<p>We use an equity share approach to establish the company organisational boundary for accounting and reporting its greenhouse gas (GHG) emissions. We have robust systems linking ear tags for animals to their location within our barns and their diets. From this data we are able to determine the number of animals we have, their life with Genus, and where they may be moved to after their productive lives with us. This is in line with the WRI/WBSCD Greenhouse Gas Protocol and against a materiality threshold of 5%. Any operations individually emitting less than 5% of the company’s total GHG emissions will be regarded as non-material. We have reported all material emission sources using the following emission factors; 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Ch. 10 “Emissions from Livestock and Manure Management); UK Carbon Trust ‘Footprint Expert’ tool.</p>

Scope 1 Methane and Nitrous Oxide Emissions from Manure Management				
	Description	Target	Unit of Measure	Notes
Scope 1 Methane and nitrous oxide Emissions from Manure Management	<p>Methane and nitrous oxide are emitted directly to atmosphere from bulk stores (i.e., storage silos, pits, lagoons) of animal manures (bovine and porcine). This is calculated using consider site-specific measures of gross energy (animal feed) consumed, for each animal age group, the number of animals in each age group, geography and production specific emissions factors suggested in the 2006 IPCC Guidelines. These include an estimate of volatile solid production per animal head per day which in turn is based on measured volumes of feed consumed, digestibility of this feed). Once manure is deposited, emission factors related to the type of 'storage' (from 2006 IPCC Guidelines for GHG Inventories are applied, which consider climatic influences on manure decomposition, the type of storage (including composting or anaerobic digestion) whether manures are separated into their solid / liquid parts.</p>	<p>Forms part of the calculation of the primary and secondary carbon intensity measures.</p> <p>Genus is committed to a 25% reduction in our primary intensity ration against our 2019 baseline by 2030 and becoming a net zero GHG emissions business by 2050.... offset our residual emissions to net zero by 2050 *</p>	T CO ₂ e	<p>Operational control approach to establish the company organisational boundary for accounting and reporting its greenhouse gas (GHG) emissions. This is in line with the WRI/WBSCD Greenhouse Gas Protocol and against a materiality threshold of 5%. Any operations individually emitting less than 5% of the company's total GHG emissions will be regarded as non-material. We have reported all material emission sources using the following emission factors: 2006 IPCC Guidelines for National Greenhouse Gas Inventories (Ch. 10 "Emissions from Livestock and Manure Management); UK Carbon Trust 'Footprint Expert' tool.</p> <p>Methane and n emissions are 'converted' to carbon equivalents using the IPCC AR5 factors <i>without</i> climate feedback</p>

Scope 1 – Combustion of Fossil Fuels (Gaseous, Liquid and Solid)				
	Description	Target	Unit of Measure	Notes
Scope 1 – Combustion of Fossil Fuels (Gaseous, Liquid & Solid)	<p>Stationary combustion sources</p> <ul style="list-style-type: none"> • Natural gas (heating) • Diesel for back-up generators, trucks and tractors • Petrol for ground maintenance equipment • LPG for forklift trucks and heating • Anaerobic biogas from manure management • Coal (phased out but still listed for historical data comparison) <p><i>sum across each fuel type consumed:</i> $\Sigma (\text{fuel consumed (e.g., kWh)} \times \text{upstream fuel emission factor (kg CO}_2\text{e)/kWh})$ <i>where: upstream fuel emission factor = life cycle emission factor – combustion emission factor</i></p>	<p>Forms part of the calculation of the primary and secondary carbon intensity measures.</p> <p>Genus is committed to a 25% reduction in our primary intensity ration against our 2019 baseline by 2030 and becoming a net zero GHG emissions business by 2050.... offset our residual emissions to net zero by 2050*</p> <p>FY24 Genus will report as a separate indicator biogenic methane emissions.</p>	<p>kg CO_{2e} and then converted to</p> <p>T CO_{2e} and for SECR KWh</p>	<p>DEFRA emission factors and country specific emission factors embedded within the <u>ECOMETRICA system</u>. Data sourced from invoices and meter reads, and for country specific emission factors where appropriate.</p> <p>Data will be expressed using both the kg CO_{2e} and KWh emission factors as required by the SECR regulations.</p> <p>For FY24 we will be seeking to report a new bio-genic methane scope 1 emissions to ensure better alignment with the reporting guidelines of the GHG protocol.</p>

Scope 1 – Fleet Emissions				
	Description	Target	Unit of Measure	Notes
Scope 1 – Fleet Emissions	<p>Emissions from Genus PLC van fleets globally. Data on vehicle type, fuel and distance travelled in kilometers is collected by our Fleet team. This is cross-checked against fuel card data in the UK. In other countries this will be cross-checked against expenses for fuel.</p> <p>Σ (× distance travelled in transport leg (km) (converted from miles to km in Ecometric) × emission factor of transport mode or vehicle type (kg CO₂e))</p>	<p>Forms part of the calculation of the primary and secondary carbon intensity measures.</p> <p>Genus is committed to a 25% reduction in our primary intensity ration against our 2019 baseline by 2030 and becoming a net zero GHG emissions business by 2050.... offset our residual emissions to net zero by 2050 *</p>	TCO _{2e}	DEFRA emission factors and emission factors embedded within the ECOMETRICA system . Data sourced from invoices, and for country specific emission factors where appropriate.

Scope 1 - F-Gas Losses				
	Description	Target	Unit of Measure	Notes
Scope 1 - F-Gas Losses	For refrigerant losses (F-gases) we use maintenance records to track the loss of the f-gas weight in kg (and we assume a total loss of f-gas when the refrigerant system is replaced or recharged with a like-for-like gas) and the type of f-gas and use DEFRA emission factors to determine the GHG potential in TCO _{2e} . We do not directly hold F-gases such as SF ₆ within our property portfolio, this equipment sits within the purview of the utility company.	None	T CO _{2e}	DEFRA emission factors and emission factors embedded within the ECOMETRICA system . This data is not subject to assurance and emissions are below the 5% materiality threshold.

Scope 2 – Purchased Electricity/Steam and Self-generated renewable electricity			
Description	Target	Unit of Measure	Notes

Scope 2 – Purchased Electricity/Steam and Self-generated renewable electricity	<ul style="list-style-type: none"> • Electricity purchased from grid. • Certificate backed Power Purchase agreement for low carbon electricity from renewables. • Self-generated on-site renewable electricity. <p>Emissions will be reported primarily using the location-based method, and emissions will be restated using the market-based method where the market-based requirements meet the Scope 2 Quality Criteria set out in the GHG Reporting Protocols Scope 2 guidance are met. Location-based scope 1 emissions are subject to assurance, but market-based emissions are currently not assured.</p> <p>Σ [each COUNTRY] + $[\Sigma (\text{grid electricity consumed (kWh)} \times \text{grid-electricity emission factor (kgCO2e)/kWh}) +$ $\Sigma (\text{Low carbon PPA electricity consumed (kWh)} \times \text{low carbon PPA electricity emission factor (kgCO2e)/kWh}) +$ $\Sigma (\text{self-generated electricity consumed (kWh)} \times \text{self-generated electricity emission factor (kgCO2e)/kWh})]$ +</p>	<p>Forms part of the calculation of the primary and secondary carbon intensity measures.</p> <p>Genus is committed to a 25% reduction in our primary intensity ration against our 2019 baseline by 2030 and becoming a net zero GHG emissions business by 2050.... offset our residual emissions to net zero by 2050*</p>	TCO _{2e}	<p>All fuels (electricity (grid, self-generated renewables, and green certificate backed renewable electricity are all tracked back to invoice data fiscal meters, or our own sub-metering. We use country specific-, DEFRA, supplier energy mix data to determine emissions and convert from units such as BTUs to kWh</p> <p>-Country specific data sourced from:</p> <ul style="list-style-type: none"> - The EEA for EU countries, - The US EPA for the USA - The SEAI publishes factors for Ireland, - The RTE publishes the French electricity factor, - The IEA, for other international generation and energy mix factors <p>These emission factors are embedded within the ECOMETRICA system. The electricity for the grid average for each country is normally the basis of the GHG emissions. Will apply the GHG Protocol Scope 2 guidance where contractual instruments (i.e., a contract between Genus and a third-party supplier for the purchase of energy bundled with renewable/low carbon attributes backed by energy certificates (RECs, RGOs, etc.) or Power Purchase agreements.</p> <p>Scope 2 Quality Criteria. <i>Grid electricity kWh</i> + <i>Self Generated Electricity kWh</i></p>
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Scope 3 – Business Travel				
	Description	Target	Unit of Measure	Notes
Scope 3 – Business Travel	<p>Data is extracted from:</p> <ol style="list-style-type: none"> 1. The expenses system provides the amount spent on travel from meals, mileage, tickets for (air, rail, bus, tram) and where the central Eugencia travel contract is either not available or suitable for use. 2. The Eugencia system* See notes provides a central view of business travel. The data is provided centrally to the UK team. This includes an industry recognized travel emission in TCO_{2e} for each leg of the journey. 3. The grey fleet data represents the car a staff member owns and uses for work. The expenses claim includes the distance travelled and this is obtained from our expenses system. DEFRA or country specific emission factors are applied to determine the GHG emissions in TCO_{2e}. <p><i>sum across transport modes and/or vehicle types:</i> Σ (<i>x distance travelled in transport leg (km)</i> <i>x emission factor of transport mode or vehicle type (kg CO₂e)</i>)</p>	<p>Forms part of the calculation of the primary and secondary carbon intensity measures.</p> <p>Genus is committed to a 25% reduction in our primary intensity ration against our 2019 baseline by 2030 and becoming a net zero GHG emissions business by 2050.... offset our residual emissions to net zero by 2050*</p>	TCO _{2e}	<p>*Egencia Analytics Studio is used to monitor our overall travel program and gain insights into important metrics like program adoption, compliance, benchmarking, savings, carbon emissions and more via dashboards and graphs.</p> <p>2. The Data Hub: Allows Genus to download all of our travel data and create custom reports with specific data fields for analysis offline.</p>

Scope 3 – Goods & Services				
	Description	Target	Unit of Measure	Notes
Scope 3 – Goods & Services	TBC	No Specific targets for scope 3 emissions set to date, other than to establish a robust baseline.	TCO _{2e}	

Scope 3 - Genetic Improvement NuERA Beef T14/T15				
	Description	Target	Unit of Measure	Notes
Scope 3 – Genetic Improvement NuERA Beef T14/T15	The T14 index is used to predict the beef cattle feed conversion rate (FCR), which in turn can be used to determine the lifecycle GHG emissions for beef production. FCR is defined as the weight of the input divided by the output (thus weight of feed per weight of animal weight). Feed can account for 42% of the average carbon footprint for a beef cow over its productive life.	The T14 index is composed by the traits post-weaning gain (PWG) and Average daily dry matter intake (ADMI). An FCR Expected Progeny Difference (EPD) was calculated from the PWG and ADMI EPD, adjusted by actual days on feed. Currently, each point of genetic improvement in the T14 index reduces the FCR by 0.03 [which is x 0.014kg CO ₂ equivalent per kg of carcass weight]. So, when our commercial aim is to deliver an average of nine points of genetic improvement per year, our target decrease in FCR is 0.27 per year, or 0.1260 CO ₂ equivalent per kg of carcass weight.	Composite measure – index points	The T14 index continues to predict the beef cattle feed conversion rate (FCR), and it will still be possible to continue to improve the index into the future in a way that results in a predictable outcome. T14 points 89 by 2030 (1,134 kg CO ₂ e reduction per kg carcass weight). An increasing index score shows continued improvement versus the previous year’s performance. The T14 Index may not follow a straight-line trajectory. We fully expect in some years the improvement may flatline or decline as new genetic traits are introduced to ensure an overall improvement of the index.

Scope 3 - PIC Genetics				
	Description	Target	Unit of Measure	Notes
Scope 3 - PIC Genetics	<p>The index measures genetic profile of pig generations from six contributing traits (growth rate, feed intake, litter size, stillbirth, preweaning mortality, and postweaning mortality) to assess the GHG emissions reduction of each subsequent pig generation given an improvement in the PIC index. 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.</p> <p>The PIC index is a proprietary system. We use the pig industry's whole enterprise feed conversation ratio (FCRwe), which combines feed intake, growth rate of the market pig, sow feed intake and piglet production. Feed in pork production systems can account for 80% of the lifetime carbon emissions.</p> <p>Emissions are estimated following IPCC guidelines (utilising the 2019 refinements to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, specifically Volume 4, Chapter 10 EMISSIONS FROM LIVESTOCK AND MANURE MANAGEMENT).</p>	2.22Kg reduction in life-cycle carbon emissions required to produce one-market pig.	Composite measure – index points	<p>The genetic trends of the various selection traits are established simply by plotting the Estimated Breeding Values (EBVs: estimates of the genetic potential) of the animals in the dataset against their date of birth.</p> <p>These EBVs follow from a "mixed model" analysis (i.e., a statistical analysis that involves both fixed and random effects) where the records of all relatives of each animal are combined with that animal's own record, weighted by their genomic relationship to the animal, and simultaneously adjusted for nuisance factors such as body weight, gender, farm, or any other relevant effect. This is the BLUP approach that has been routinely used by the whole western livestock breeding industry for the past two decades.</p>

Women in M-Grade Roles (1)				
	Description	Target	Unit of Measure	Notes
Women in M-Grade Roles	The number of M grade management positions filled by women divided by the total number of M grade positions is the assured.	Genus PLC committed to equality across all of its businesses. It recognises these targets are challenging given the current availability of women within the overall global agriculture workforce. To increase the number of women in M-grade roles from today's levels at 28.7% to 36.3% by 2030.	%	<p>From our Genus One HR system we are able to determine the number of women to managerial grade and divide this by the total number of managerial grades across all genders.</p> <p>Genus has mapped out all of its positions and job families within our Job Framework document (This is an internally facing document only). The job framework document shows the career banding for all roles within Genus. There are senior technical roles where a person does not directly manage other team members to collectively achieve the outcomes required by the company. These are not deemed M-Grade roles and exist to ensure that all staff have a visible career path to follow. M-Grade roles have responsibility for managing, coaching and supporting a wider team. Our M-grade KPI excludes women who hold roles in JVs. In 2023 the number of managerial positions was 629.</p>

Women newly promoted or recruited to M-Grade Roles (2)				
	Description	Target	Unit of Measure	Notes
Women in M-Grade Roles	We also track the number of newly promoted or recruited M grade management positions filled by women divided by the total number of M grade positions. but this secondary KPI does NOT form part of the third-party assurance statement or contracted work.	Genus PLC committed to equality across all of its businesses. It recognises these targets are challenging given the current availability of women within the overall global agriculture workforce. To increase the number of women in M-grade roles from today's levels at 28.7% to 36.3% by 2030.	%	<p>From our Genus One HR system we are able to determine the number of women promoted or recruited to role goes through a manual audit check.</p> <p>Genus has mapped out all of its positions and job families within our Job Framework document (This is an internally facing document only). The job framework document shows the career banding for all roles within Genus. There are senior technical roles where a person does not directly manage other team members to collectively achieve the outcomes required by the company. These are not deemed M-Grade roles and exist to ensure that all staff have a visible career path to follow. M-Grade roles have responsibility for managing, coaching and supporting a wider team. Our M-grade KPI excludes women who hold roles in JVs.</p>

Responsible Employer of Choice - (H&S) Recordable Injury Frequency Rate				
	Description	Target	Unit of Measure	Notes
Responsible Employer of Choice - Recordable	The incidence rate of injuries and illnesses is calculated from the following formula: (Number of injuries and illnesses X 200,000) / Employee hours worked = Incidence rate. The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rate for an entire year. The Recordable Incident Frequency rate excludes contractors working at our locations, working hours from JVs, minor first aid treatment, near-miss and hazard observation	Achieve at least a rolling 5% year-on-year reduction in recordable injury frequency rate, equivalent to at least 2.24 or less from the 2020 baseline.	Normalized injury rate	The figure calculated does not include JV or third-party contractors. Full details of the system and tools used to derive the incident rate are contained on an internal facing document - 44850 - Incidence Rate of Injuries and Illnesses Explained. The data is reported in line with the OSHA requirements Recordkeeping - Recordkeeping Forms Occupational Safety and Health Administration (osha.gov)

NOT IN USE - SPARE TEMPLATE				
	Description	Target	Unit of Measure	Notes
Title	Deliberately left blank			

Document Control

Version No.	Date	Changes Made
Draft 0.1	June 2023	Document creation for comment
Draft 0.2	June 2023	Included H&S RIR definition
Draft 0.3	August 2023	Feedback from third party assurance provider incorporated to correct minor errors in definitions.
Draft 0.4	September 2023	Final consistency check
Draft 1.0	October 2024	Published