ANNUAL OPERATING PLAN 2022-23

JUNE 2022

DataGene Limited

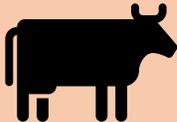# TABLE OF CONTENTS

Executive Summary

DataGene's operations and activities are governed by a five-year Business Plan (2019-20 to 2023-24) which incorporates direction from the Herd Improvement Strategy 2019-2024. The Strategic Priorities drive the activity of DataGene and this Annual Operating Plan outlines the work plan for the 2022-23 year and presents the financial outlook to deliver on these goals.

DataGene's key deliverables for 2022-23 are listed below by strategic priority area.

TABLE 1: Delivery Priorities for 2022-23

Data-driven Decisions	• Integrate the Centralised Data Repository (CDR) and the iDDEN[1] data exchange hub, and leverage connection for industry value with a focus on connecting Easy Dairy farms. • Support roll-out and implementation of HerdPlatform and associated tools through DataVat, and transition HerdData App to new licensing arrangements. • Complete the next phase of Centre Software re-development and redevelop the Good Bulls App.
Animal Performance	• Support uptake of heifer genomic testing through Accelerating Genomics Project and continue the focus on the Good Bulls strategy. • Improve reporting of genetic trends, haplotypes, breed percent and genetic test results. • Rebuild website to improve functionality and user experience.
Herd Improvement R&D	• Implement a Sustainability Index, improved Semen Fertility Values and improved Fertility ABV. • Implement new methodologies from DairyBio for imputation and SNP analysis. • Maintain Ginfo farmer participation at current levels, including classifications and genotyping.
Service Provision	• Foster collaboration with industry stakeholders through regular Standing Committees, User Groups, and other meeting opportunities, including Herd '23 and the associated Ginfo workshop. • Maintain the security auditing and penetration testing of DataGene systems and finalise and begin implementation of a DataGene Digital Strategy. • Continued delivery of quality services to external customers, including routine runs, other agricultural sectors within Australia and international customers.

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[1] International Dairy Data Exchange Network

The outlook for DataGene's financial performance in 2022-23 indicates a reduction in project income partially offset by carefully controlled expenditure. The Dairy Australia Funding Agreement remains critical to the operations of the business and accounts for 45% of total income. The major expenditure is on salaries which accounts for 56% of DataGene's total expenditure. Software development costs have reduced due to the reduced income from project work. Depreciation and amortisation on the significant investment in IT infrastructure continue to be a major expense line. The 2022-23 budget framework will deliver a break-even EBITDA[2] bottom-line whilst maintaining a fiscally sound cash position.

TABLE 2: Financial Summary

BUDGET INCOME STATEMENT	Budget 2022-23	Forecast 2021/22 as at February 2022
Total Income	5,559,000	6,100,000
Total Expenditure	5,558,000	5,785,000
Operating Surplus/(Deficit) excl non-cash	**1,000**	**315,000**
Depreciation & amortisation	-489,000	-482,000
Surplus/(Deficit) incl non-cash	**(488,000)**	**(167,000)**

BUDGET BALANCE SHEET	Budget 2022-23	Forecast 2021/22 as at February 2022
Assets	6,954,000	7,608,000
Liabilities	2,362,000	1,913,000
Net assets	**4,592,000**	**5,695,000**

BUDGET CASHFLOW	Budget 2022-23	Forecast 2021/22 as at February 2022
Cash at beginning of the financial year	1,891,000	1,378,000
Net cash provided by operating activities	8,000	631,000
Cash used in investing activities	-99,000	-118,000
Cash at end of the financial year	**1,800,000**	**1,891,000**

[2] Earnings before interest, taxes, depreciation, and amortization

About DataGene

DataGene is owned by the dairy industry, with foundation members being Dairy Australia, Australian Dairy Farmers (ADF) and the National Herd Improvement Association (NHIA). In February 2022, total membership of DataGene was 27 members including herd test centres, genetics suppliers, genetic service providers, data service providers and breed associations.

Our Vision

Enabling farmers and industry to maximise profit through data-driven decisions

Our Mission

DataGene delivers world-class genetic evaluation, software, and decision-making tools to enable Australian farmers to improve their herd and maximise their profit through data-driven decisions and innovative industry services.

Our Values

1. COMMITMENT TO CLIENTS - We work towards shared and innovative outcomes for members and stakeholders.

2. DIRECT, OPEN & HONEST COMMUNICATION - We depend on genuine and sustained stakeholder engagement.

3. INCLUSIVE - We are genuinely inclusive and value farmer and member involvement in governance and oversight functions.

4. INNOVATIVE - We aim to be creative and innovative in our products and services.

5. ENGAGEMENT WITH EMPLOYEES - We treat our people with respect, support them in their development and value their contribution to our success.

6. INTEGRITY & ETHICAL VALUES - We apply best-practice corporate governance and financial management principles

DataGene collaborates with a range of organisations to enable pre-competitive actions such as data sharing, the development and conduct of research and development, extension activities, strategy development and promotion of the dairy industry and herd improvement sector.

Introduction

DataGene's operations and activities are governed by a five-year Business Plan (2019-20 to 2023-24) which incorporates direction from the Herd Improvement Strategy 2019-2024. The strategic priorities identified in the Business Plan are summarized below:

TABLE 3: DataGene's Business Plan 2020-24 snapshot

	Business Plan Strategic Priorities 2020-24	DataGene 2022-23 AOP Key Focus Areas
Improved decision-making from data	• Develop and support new decision tools • Expand and secure additional data • Drive and support industry innovation	• DataVat & HerdPlatform • Coordinated data management • Herd recording innovation • Decision support tools • Access to phenotypes
Increased animal performance through herd improvement	• Increase reliabilities • Improve service delivery • Increase farmer and industry service uptake • Increase the number of genomically-tested females	• Use of Australian metrics • Increased replacements from good bulls • Innovation in evaluations • Clear value proposition
Improved animal performance from research and development	• Deliver new health breeding values • Use genomics and other technology (e.g., MIR) to predict future performance	• Increasing genomic technology use • New and improved breeding values and management tools • Improved genetic evaluation methodology
Improved and diversified services	• Build and maintain DataGene and industry infrastructure • Develop and maintain industry solutions • Establish new revenue streams	• Shared infrastructure and capability • Right-sized support functions • Coordinated service development • Expanded collaboration

The DataGene Board and management regularly monitor a variety of performance metrics that cover the genetic merit of the national herd, the market acceptance of DataGene products and services, herd recording levels, and extension and communication reach. The primary metrics are shown in Table 4 on the next page.

TABLE 4: Primary metrics for DataGene

1. **The rate of genetic gain of sires of cows for BPI exceeding $30/cow/year over a 10-year period.**	In April 2022, this is currently at $27.90/cow/year over the previous 10 years.
2. **The level of female genomic testing increasing annually by at least 15%.**	Genomic testing is projected to increase by almost 16% this year, the April 2022 number, excluding research projects, is 38,815.
3. **The number of new cows with phenotypes in CDR increasing annually by 5% of the previous year.**	The number of cows in CDR in April 2022 has increased to 16.4 million cows.

This Annual Operating Plan outlines the work plan and the targets DataGene aims to achieve in the 2022-23 year and the financials to achieve this. In general, the content of the Annual Operating Plan is at a summary level and a greater level of detail is within individual tracking tools for each business unit.

DataGene structure and governance

DataGene Board

DataGene is governed by a seven-member, skills-based Board. Board members are elected at an Annual General Meeting (AGM) on their knowledge and experience in dairy, herd improvement, finance, and governance. The Board must include three Directors with direct expertise in dairy farm management. Directors serve three-year terms and up to three consecutive terms (i.e., nine years in total). The ongoing rotation of Directors ensures the continuing refreshment of skills and experience on the Board.

Two Board members are due for election at the Annual General Meeting (AGM) in November 2022, one position being that reserved for nomination by Dairy Australia. DataGene will conduct an open call for nominations in winter 2022 for the open position and request a nomination from Dairy Australia for the second position. The nominations committee will consider and nominate the candidates who will stand for election at the AGM.

The Board and management will continue to review significant company policies according to the agreed rotation schedule for 2022-23.

DataGene Committees

DataGene's Standing Committees enable members to have direct influence over DataGene's priorities and program activities. These Committees are not simply advisory bodies, but exercise authority as delegated by the DataGene Board. The Committees comprise individuals from within the dairy industry and herd improvement sector who possess relevant skills and experiences. Standing Committee members are either nominated by stakeholders for DataGene Board approval or appointed directly by the DataGene Board, according to the terms of reference for each Committee's structure. Each Standing Committee is chaired by a DataGene Board member and includes at least one DataGene management team member.

During 2021-22, a review of the Standing Committee structure and membership was undertaken. Six recommendations were proposed to transition to a simplified and more effective committee structure, and these will be implemented during 2022-23. Key recommendations to transition to the new committee structure which will be implemented include:

- Disestablishing the 'Data and Services Standing Committee' (DSSC) and the 'Herd Testing and Animal Recording Steering Committee' (HTARSC)

- Altering membership and updating the Terms of Reference for the 'Genetic Evaluation Standing Committee'

- Repositioning the 'Data Governance Group' as the 'Data Access and Standards Committee' (DASC)

- Updating the Terms of Reference for the 'Herd Test Centre Committee'

- Setting specified terms of 3 years for each committee member beginning 1 July 2022.

Genetic Evaluation Standing Committee	Provides advice and recommendations to the DataGene Board on specialist matters in relation to genetic evaluation and related technologies.
	The Genetic Evaluation Standing Committee helped prioritise projects that are presented in this AOP.
Data Access and Standards Standing Committee	Provides advice and recommendations to the DataGene Board on specialist matters in relation to the development and implementation of data standards and sharing. The Committee will also provide advisory services to the broader herd improvement industry to assist in decision-making regarding data access and standards
Herd Test Centre Committee	Makes recommendations and proposals to DataGene Board and management, and respective centre Boards (or equivalent) on herd test-related matters, including software and service development. Enables collaboration on pre-competitive projects.

Organisational Structure

DataGene's organisational structure has evolved since formation and continues to refine as the company changes and grows. The management structure established by the CEO is fit for purpose to deliver DataGene's vision to the industry. Staff operate in functional areas based on the types of work completed.

Central to the structure is the leadership team who work closely together and with the rest of the company to embed the DataGene culture, standards, and processes to allow the achievement of its vision. The Leadership Team is made up of the heads of the business units and other key staff (including DairyBio) and meets regularly. The AOP forms the basis for the goals of each business unit and relevant aspects are incorporated into the performance and development plans of each DataGene employee.

The Lead Science function is provided by DairyBio rather than by a DataGene employee. However, the integration of the science into the implementation framework was a key driver for the creation of DataGene. Therefore, it is important to recognise this in a management structure and institutionalise the shared planning and implementation across the organisations.

DataGene risk management

DataGene manages risk through a variety of ways. The Board and Management regularly review a formal risk register for internal, external and project risks. Annually, the Board and Management undertake a SWOT analysis to scan the horizon for issues and possibilities. Each year DataGene contracts an IT security consultant to undertake a security audit of its information technology systems.

DataGene insurances are placed through a broker to obtain the best possible policies and market prices with reputable insurance companies. Renewal is during July each year. The current policies are: Business Insurance, Public Liability and Product Liability, Directors and Officers (D & O) Insurance, Professional Indemnity Insurance, and Cyber Insurance.

DataGene stakeholders

DataGene has a range of strategic relationships, end-users, customers, and stakeholders with which it interacts at various levels.

Dairy farmers

- Contribute funding via dairy farmer levies paid to Dairy Australia

- Use breeding values and tools such as the Good Bulls App, Genetic Progress Report, DataVat, and HerdPlatform

- Buy DataGene products such as Genomic Breeding Values

- Are a key audience for DataGene extension, communications, and marketing activities

- Supply data to drive genetic evaluations

Service providers (breed organisations, herd test centres, etc.)

- Use breeding values and tools such as the Good Bulls App, Genetic Progress Report, DataVat, and HerdPlatform

- Work collaboratively with DataGene on projects

- Are a key audience for DataGene communications and marketing activities

- Purchase DataGene services such as breeding values and software

- Provide data to DataVat and are part of the industry's data pipeline

Industry partners

- **Dairy Australia** is the primary funder and a founding member of DataGene. Dairy Australia also operates as a client of DataGene in the development of software solutions such as the updates to the Fertility and Mastitis Focus Reports.

- **Australian Dairy Farmers (ADF)** has a key role to ensure that DataGene's priorities and activities reflect the priorities of the dairy farmer community, in addition to DataGene's many direct interactions with farmers. DataGene relies on ADF to be publicly supportive of and a strong advocate for, herd improvement. DataGene also has a direct relationship with farmers through its products, services, extension, and communications.

- **National Herd Improvement Association (NHIA)** is a founding member of DataGene. DataGene also has direct relationships with many NHIA members, who are also members of DataGene. In addition, there are important relationships with non-NHIA members such as Zoetis, Neogen, Easy Dairy and Apiam. These are key relationships for the delivery of DataGene products and services and the development pipeline for new products and services, particularly as they are major clients and contributors of data, respectively. Zoetis and Neogen deliver genomic services and Easy Dairy and Apiam provide software to the vet industry and farmers. They are key collaborators for data and data services with DataVat.

- **Agriculture Victoria** is a client for DataGene for certain projects; it is an in-kind contributor to DataGene in terms of supporting overhead costs for some in the Genetic Evaluation team; it is a user of DataGene data; and it is a strategic partner in its provision of research outputs to industry through DairyBio.

- DataGene also works closely with other non-members, such as the Gardiner Dairy Foundation on specific projects. DataGene collaborates with Agricultural Business Research Institute (ABRI) on key information technology development projects, particularly relating to herd testing reporting. DataGene also works with and provides services to other industries, such as the Cotton Rural Development Corporation (CRDC) and the Australian Genetic and Breeding Unit (AGBU).

International collaborators

- **Interbull** is a vital partner to deliver accurate breeding values to the Australian industry.

- **International Dairy Data Exchange Network (iDDEN)** will become an important link between the Centralised Data Repository (CDR) and other dairy data sources.

- **Council on Dairy Cattle Breeding (CDCB)** is an important partner and customer for software development.

- **International Committee on Animal Recording (ICAR)** provides standards, guidelines, and networks to shape services.

- **TMA Solutions** (DataGene's IT service partner in Vietnam) work closely with DataGene staff on developing and maintaining systems and tools for DataGene's use and for development of other products for customers.

- **International genetic evaluation units** such as those in the UK, Canada, New Zealand and Ireland are important future partners for collaboration on delivering new and improved genetic evaluation tools as well as management tools.

The year ahead: 2022-23 outlook

Industry

The operating environment for DataGene in 2022-23 is expected to remain broadly optimistic on the back of positive seasonal and price settings from 2021-22. Many factors appear supportive for the dairy industry heading into the new year. Dairy commodity prices and local sales of dairy products remain strong due to slow global supply growth and robust demand. Fierce competition by processors for milk in Australia is driving higher milk prices and the financial performance of many dairy farm businesses. However, rising inflation is driving up input costs, which will partially offset higher milk prices.

In addition, Australian cow numbers continued to fall to 1.384 million cows in 2020-21, representing a 0.7% fall from 2019-20. With beef prices reaching new records, many farmers continued culling to take advantage of higher returns. Data indicates that culling increased 39% at the start of 2021-22, compared to the prior year. Australian exports of live dairy heifers were 90,723 head in 2020-21, a decrease of 4% for 2019-20 but about 20% above the five-year average. Rising input costs and these additional factors will impact any rapid rebuilding of national dairy cow numbers.

Dairy cow numbers are generally expected to stabilise or see a small decline and milk production is expected to be flat or see limited growth in 2022/23.

In 2020-21 there were 4,618 registered dairy farms operating in Australia, a 9% decrease in farm numbers from the previous year. 1,967 herds participated in herd testing in 2020-21 representing total cow numbers of 527,553. This equates to 38% of cows being herd tested and a 1% decrease in participating cows from the previous year.

There is a growing need across all of agriculture to respond to social license concerns of the broader community. This includes questions regarding the impact of agriculture on climate change (specifically methane production in dairy) and sustainability, as well as animal health and welfare concerns (e.g., non-dairy animals, disbudding, lameness, etc.) and a focus on the judicious use of antibiotics, hormones, and other treatments. Consumers, manufacturers and governments are increasingly looking to measure and report on these social license issues.

Financial

Budgeting for 2022-23 saw a material change in project-derived income due to the completion of a major piece of work for an external client. The objective in the budget process was to control expenditure to deliver a minimum of a break-even Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA), whilst maintaining a healthy Balance Sheet, and the continuation of prudent cash reserves.
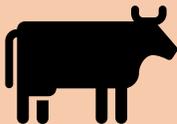
These outcomes are based around budgeted income from Dairy Australia in accordance with the current Funding Agreement, ongoing fees for genetic service, centre services, export heifers and project work for a variety of organisations. The expenditure budget has been contained with the major investment being into staff to deliver these goals whilst maintaining cash reserves at an adequate level. Cash reserves are held to enable the company to successfully weather the cyclical nature of agriculture and to fund the future redevelopment of major pieces of infrastructure, such as the genetic evaluation system, DataVat, datagene.com.au and Centre software.

As always, actual performance compared to budget will be reviewed regularly throughout the year to ensure delivery of the financial goals. Should there be any shortfall in expected revenue during the year this will be mitigated by changes to expenditure which would be instituted by management in a timely manner. In addition, all expenditure is tightly controlled and options for operational efficiencies investigated.

There are three capital projects that will require additional Board discussion and approval which are listed in the work plan but are not included in the budget: the Centre rewrite, the rebuild of DataVat and the rebuild of datagene.com.au.

Annual Operating Plan 2022-23

TABLE 5: Delivery Priorities for 2022-23

Data-driven Decisions	• Integrate the Centralised Data Repository (CDR) and the iDDEN[3] data exchange hub, and leverage connection for industry value with a focus on connecting Easy Dairy farms. • Support roll-out and implementation of HerdPlatform and associated tools through DataVat, and transition a HerdData App to new licensing arrangements. • Complete the next phase of Centre Software re-development and redevelop the Good Bulls App.
Animal Performance	• Support uptake of heifer genomic testing through Accelerating Genomics Project and continue the focus on the Good Bulls strategy. • Improve reporting of genetic trends, haplotypes, breed percent and genetic test results. • Rebuild website to improve functionality and user experience.
Herd Improvement R&D	• Implement a Sustainability Index, improved Semen Fertility Values and improved Fertility ABV. • Implement new methodologies from DairyBio for imputation and SNP analysis. • Maintain Ginfo farmer participation at current levels, including classifications and genotyping.
Service Provision	• Foster collaboration with industry stakeholders through regular Standing Committees, User Groups, and other meeting opportunities, including Herd '23 and the associated Ginfo workshop. • Maintain the security auditing and penetration testing of DataGene systems and finalise and begin implementation of a DataGene Digital Strategy. • Continued delivery of quality services to external customers, including routine runs, other agricultural sectors within Australia and international customers.

Key deliverables in the annual workplan have been prioritised as MUST DO, SHOULD DO or COULD DO according to criteria in Table 6 below. The expectation is that not all KPIs may be delivered in 2022-23 but are presented as stretch targets to drive improvements in key metrics. Activity marked with an * and in italics are capital investments that are not included in the budget attached. They will be the subject of individual investment decision papers which will be taken to the Board.

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[3] International Dairy Data Exchange Network

TABLE 6: Deliverable prioritisation

1	**Highest priority and key deliverables ('MUST DO')**	• A non-negotiable requirement to meet business needs. • Critical to the current delivery timeframe for the project or organisation to be a success.
2	**Medium priority and secondary deliverables ('SHOULD DO')**	• Should have this requirement, if possible, but project or organisational success does not rely on it. • Important but not necessary for delivery in the current delivery timeframe. • They are often not as time-critical or there may be another way to satisfy the requirement so that it can be held back until a future delivery timeframe.
3	**Lower priority and will be delivered if resources allow ('COULD DO')**	• Could have this requirement if it does not affect anything else in the project or organisation. • Desirable but not necessary, e.g., could improve the user experience or customer satisfaction for little development cost. • These will typically be included if time and resources permit.

Strategic Priority 1 – Improved Decision Making from Data

Area	Activity	Completion Date	2022-23 Target/Outcome	Priority
1.1 DataVat Maintain, support, and enhance DataVat, including prioritised developments and upgrades	*DataVat Security module to accommodate new tools and functions, mirrored in CDR**	*1 July*	*Third-party check*	*1*
		31 August	*BRD Complete*	
		30 April	*Implementation*	
	Improve useability*	*30 April*	*Rebuild DataVat using Angular framework*	*3*
	Improve QA process	30 June	Implement solution for switching DataVat QA to production	2
	Improve User Functionality	15 July	Owners of herd bulls able to view their bulls on DataVat	1
	Display National Stats on DataVat	15 December	BRD Complete	3
		30 June	Interactive display of national statistics on DataVat	
	Allow self-generation of customised cow ABV reports	15 December	BRD Complete	1
		30 June	Implement new reports	
	Improve user experience	15 July	Reports to be in one location for download	1
		15 December	Select animals from an imported list and export the results	1
	Report genetic codes and haplotypes called by DataGene on DataVat	15 July	Report haplotypes and genetic codes on DataVat	1
1.2 Coordinated Data Management	Expand data sources for DataVat, including integration with on farm-devices, and fostering new uses for this data.	20 December	CDR connected to iDDEN data exchange hub	1
		30 June	Extend the schema of the CDR to enable data to flow between organisations via the API	1
		30 June	Extending CDR schema to accommodate Easy Dairy data through Herd API (additional reporting) and connect Easy Dairy farms	1
1.3 Herd Recording Innovation	*Design and commence build for Centre rewrite**	*30 November*	*BRD complete*	*1*
		20 December	*High-level solution design*	
		30 June	*Build in progress*	
	Support rollout of HerdPlatform by Herd Test Centres	30 June	Herd Test Centres well supported to increase uptake	1

	Partnership model and resources to support innovative herd recording centres.	30 June	Evidence of collaboration between herd test centres in areas such as marketing, support, new tool development	2
		30 June	Extend the Centre read/write DataGene API, move services (Holstein Australia, HerdData, industry reports, etc) to Herd API, finish printable report migration	2
1.4 Decision Support Tools	Examine opportunities for development of tools and resources for use across value chain, e.g., milk processors, quality assurance, etc.	30 June	Explore options around Milk Quality and Sustainability Reporting	3
	Redevelop GoodBulls App	15 August	New app launched and used by customers	1
	Update Printed Good Bulls Guide	15 August	New print version released	1
	Improve HerdData App	31 July	BRD Complete	3
		31 October	Release of new HerdData App	
1.5 Access to Phenotypes	Maintain Ginfo farmer participation and data collection activities	30 June	Annual check in call for individual support specially to read genomic results	1
		30 June	10,000 Samples 28,000 Genotypes 9,000 Linear Type Evaluations	
		30 June	Import Easy Dairy data directly from Ginfo farmers into CDR	
	Review options for getting additional data to improve semen fertility analysis	30 June	Prepare a report on options to increase data available for the semen fertility analysis, including AI docket entry and dedicated collection software	3

Strategic Priority 2 – Increased Animal Performance Through Herd Improvement

Area	Activity	Completion Date	2021/22 Target/Outcome	Priority
2.1 Use of Australian Metrics	Continued implementation of extension strategy targeting bull selection	30 June	Ongoing increase in reseller use of BPI Integration of DataGene extension resources to company marketing materials Evidence of BPI use continues to increase	1
	Develop a strategy for smaller breeds and sub-sections of industry	15 December	Agreed strategy on an approach for smaller breeds and sub-sections of industry	3
	Increase heifer genomic testing	30 June	Engage and influence bull companies, genomic service providers and farmers to increase the number of heifers tested. Target: 150,000	1
	Review BPI Criteria for Good Bulls	15 December	Prepare a proposal for updating Good Bulls criteria	1
		31 March	Implement GESC decisions	
	Improve reseller extension	30 June	Review strategies for working with resellers. Target: 100% using Good Bulls	1
2.2 Increased Replacements from Good Bulls	Implement extension strategy targeting heifer selection through the Accelerating Genomics Project	30 June	Genomic testing activity increases. Collaboration with Dairy Australia to develop and deliver additional extension resources	1
	Continued implementation of extension strategy targeting bull selection	30 June	Ongoing increase in reseller use of BPI Integration of DataGene extension resources to company marketing materials Evidence of BPI use continues to increase	1
2.3 Innovation in Evaluations	Maintain delivery of core products	Ongoing	Maintain databases, workflows and processes Includes updating historic conformation data	1
		Weekly	Routine and public runs delivered on time	1
		15 October	Monitor and analyse trends of data acquisition and submit recommendations	2
		Monthly	Monitor genomic evaluation results to reduce the number of animals without results	1
		30 May	Automate the production of the Genetic Progress Report and the Genetic Futures Report	2
	Improve CDR Security	30 April	See 1.1 above	1

	Refactor CDR User Interface	30 April	Rebuild CDR User Interface using Angular framework	2
	Improve progeny tracking	30 June	Realtime pop up and notification of job status	2
	Improve speed of loading information into CDR	30 June	Streamline usage of tables to improve speed	3
	Improve Semen Fertility usability	30 June	Move Semen Fertility functionality into GESNP	3
	Lengthen timeframe for receiving genotypes and nominations	1 July	Enable batch processing of genotypes and nominations	2
	Synchronise pedigree between herd testing centres and breed societies	15 February	BRD Complete	1
		30 June	Implementation complete	
	Correct breed based on pedigree	15 August	BRD Complete	1
		1 October	Implementation complete	
	Improve calculation of genomic breed composition	1 July	Complete BRD for rules regarding breed determination based on estimated genomic breed composition	2
		15 September	Implementation complete	
	Improve breed determination internally	15 September	Complete BRD to update breed information in internal systems	1
		15 December	Implementation complete	
	Improve synchronisation of breed composition	15 February	Complete BRD to enable synchronisation with herd test centres, breed societies and farmers	2
		30 June	Implementation complete	
	Improve reporting of genetic codes and haplotypes	15 July	Implement reporting of haplotypes and genetic codes based on new genome build	1
	Automate Red Breed genomic pipeline	30 May	Implement automation of Red Breed genomics within GESNP	1
	Standardise parent average calculations	15 February	Complete BRD	2
		30 June	Implementation complete	
2.4 Clear Value Proposition	Work closely with Dairy Australia regional team to deliver messages on the value of herd improvement.	30 June	Implement marketing and communications plan based on 2022-23 AOP and integrated with extension	1
	*Upgrade or redevelopment of corporate websites**	*31 July*	*Complete BRD*	1
		28 February	*New website is live*	

		15 July	2022-23 Comms and Marketing plan drafted with an increased focus on software services and training, including DataVat, HerdPlatform and other software services	1
	Improve delivery of extension and communication			
		30 June	Delivery of 2022-23 plan	
	Demonstrate value of BPI vs NM/BW for farmers genomically testing in Australia	15 December	Options paper completed which considers methods of demonstrating value proposition of Australian metrics	3

Strategic Priority 3 – Improved Animal Performance Through Research and Development

Area	Activity	Completion Date	2021/22 Target/Outcome	Priority
3.2 New and Improved Breeding Values and Management Tools	Implement Sustainability Index	30 June	Pre-release engagement activities complete	1
		15 July	Release index into routine runs	
		15 August	Public release	
		15 December	Options considered about linkages with other industry resources and future direction	
	Improve Fertility ABV	1 March	Implement updated Fertility ABV	2
	Implement within herd ranking tool for crossbred and multibreed herds	30 October	BRD Complete	2
		30 June	Tool released	
	Improve herd bull pedigree linkages	15 July	Herd bulls are linked to their National Herd ID	1
	Improve farmer ability to manage genomic inbreeding	30 September	Options paper presented to GESC	1
		15 December	Implementation plan and BRD complete	
	Improve ability to assess optimal proportion of herd to breed to beef	30 June	Consultation with stakeholders complete and recommendation for path forward made	3
	Improve use of Interbull Services	30 June	Participation in SNPMace considered and recommendation submitted to GESC	3
			Parentage Discovery certification complete	2
			Participation in GenoX PSE considered and BRD complete if required	3
3.3 Improved Genetic Evaluation Methodology	Further develop single step evaluation models	30 June	Report delivered which considers expanding single-step to other breeds and expanding red breed traits	3

Strategic Priority 4 – Improved and Diversified Service Offerings

Area	Activity	Completion Date	2021/22 Target/Outcome	Priority
4.1 Shared Infrastructure and Capability	Develop, support, and maintain DataVat	30 June	*See 1.1 above*	1
	DataGene Digital Strategy implemented	30 June	Progress made towards the vision articulated in the Digital Strategy, including more efficient internal processes and improved external user experience	1
4.2 Adequate Support Functions	Ensure appropriate DataGene staff and Board capability to deliver support.	30 November	A professional selection process results in the election of two directors at the AGM	1
		30 June	Ensure all staff have the opportunity to visit with farmers and herd improvement organisations and to understand the range of data uses.	1
		30 June	Development and training needs assessed and acted upon	1
	Ensure appropriate IT and Business infrastructure	30 June	Implement the feedback from previous Security Audit and pass a new audit.	1
		30 June	Disaster Recovery Plan maintained and tested.	1
		20 December	Internal Data Governance Review which describes current structures, needed structures and process for making change.	2
		30 June	Mitigate key dependencies on individual TMA Solutions (software outsourcing company) staff	1
4.3 Coordinated Service Development	Review customer engagement and implement improvements	30 June	Maintain communication with users of DataVat, Centre, HerdData and the website, including any necessary training in use of GESNP and DataVat	1
4.4 Expanded Collaboration	Implement sales & marketing plan for international and domestic sales of DataGene products and services.	30 June	Maintain at least three external clients with contracted projects	1
		30 June	Successfully contribute to Digital Strategy for the Australian Cotton Industry project	1
	CDCB Web Connect	31 October	Provide maintenance and support	1

	Establish and maintain strong communication with stakeholders through effective Standing Committees	30 June	Hold a minimum of two meetings of the Genetic Evaluation Standing Committee	1
		30 June	Hold a minimum of two meetings of the Data Access and Standards Standing Committee	
		30 June	Hold a minimum of two meetings of the Herd Test Centre Committee	
	Deliver a successful Herd '23	31 March	Strategically strong and high-quality program is delivered. Participants recognise the conference as successful.	1
	Ginfo Workshop	31 March	Strategically strong and high-quality program is delivered. Participants recognise the conference as successful.	1
	Deliver Forage Value indices for Perennial, Annual and Italian ryegrasses	15 Dec 2022	Breeding values and Index delivered for three types of pasture and the various regions	1
	Upskilling herd improvement advisors re DataVat	30 Jun 2023	Training sessions conducted for herd improvement advisors (groups within organisation).	1

*Activity marked with an * and in italics are capital investments that are not included in the current budget. They will be the subject of individual investment decision papers which will be taken to the Board.*

2022-23 Financial Statements

The financial outlook has been prepared using the following assumptions:

1. The industry continues to operate as 'business as usual'

2. Not all new project income has been identified at this stage. Historically the team has been able to deliver new projects over the 12-month period to fill this income gap.

3. A stable workforce with strong staff retention.

4. Ongoing maintenance and refinement of GESNP, CDR and DataVat will continue to occur.

5. Continued export heifer activity at historic average levels

Income Statement

Other than the reduction in project income through software services, budgeted income is at a similar level to the forecast previous financial year. Expenditure on salaries account for 56% of the total expenditure excluding depreciation and amortisation as we endeavour to maintain the strong skillsets we have built over previous years. Software development expense has reduced from the previous year due to the reduced project income. All expenses will be tightly controlled. This budget framework will deliver a break-even EBITDA bottom-line.

DataGene revenue sources

DataGene has four primary sources of revenue, and its goal remains to maintain diversified income streams:

• Core funding from Dairy Australia via the current Funding Agreement which runs to June 2024

• Semen companies, genomic service providers and farmers paying for genetic evaluation services

• Herd improvement companies paying for Centre and other related software.

• Customers paying for projects delivering improved software, tools, reports and/or services

The final dot point, Business Development Services, generate revenue through major and minor development and consulting projects, such as with the Council of Dairy Cattle Breeding (CDCB) and DairyUp. These projects require a mixture of existing staff skills and experience, such as stakeholder engagement, IT and change management, and offshore development resources which DataGene then project manages. During the previous four budget years DataGene has generated new projects of similar value to that appearing in this AOP. This unidentified new project income is the major risk in this AOP. However, management has clear strategies in place which will be implemented to mitigate this shortfall risk should it materialise.

Genetic evaluation services income budget of $1,417k comprises service fees associated with ABV(g), pre-determined access fees, new calf testing, NASIS registrations, workability and export heifers.

Salaries and associated costs remain the largest expenditure item and equate to 56% of the total expenditure excluding depreciation and amortisation. Consultants' expenditure includes costs incurred for calf testing which will offset revenue for calf testing. Software development captures the costs to maintain GESNP, CDR, and DataVat plus project work undertaken with customers. Ginfo has moved into a maintenance phase following the efforts to deliver an increased number of herds in past financial years. Communications activities remain particularly important. All other expenditure is at similar levels to the previous financial year.

As demonstrated in previous financial years, expenditure will be monitored carefully in line with income and adjusted accordingly to maintain a sound financial position.

TABLE 7: Income Statement 2022-23

INCOME STATEMENT BUDGET	2022-23	2021/22
	Budget	Forecast as at February 2022
TOTAL INCOME	5,559,000	6,100,000
TOTAL EXPENDITURE	5,558,000	5,785,000
NET SURPLUS/(DEFICIT) FROM OPERATIONS	1,000	315,000
Depreciation & amortisation	-489,000	-482,000
SURPLUS/(DEFICIT) INC NON-CASH	(488,000)	(167,000)

As shown in Table 7 above, the budget income statement shows a break-even EBITDA. On a full accrual accounting basis, taking into account depreciation and amortisation, the bottom line is in a deficit position. Depreciation and amortisation reflect the significant historic investment made into core IT infrastructure to create the genetic evaluation system, the Central Data Repository and DataVat. These core infrastructure pieces underpin DataGene's ability to deliver service to the industry.

Balance Sheet and Statement of Cashflow

The cash reserve position in the Balance Sheet at the end of 2022-23 is expected to be around $1,800,000. This positions DataGene well for future infrastructure investment that will be required.

During the year there will be investment into new servers plus storage expansion trays to support weekly ABV runs. $99,000 has been budgeted for these purchases. In addition, three further projects will be taken to the Board for approval as capital investments: the Centre rewrite, the rebuild of DataVat and the rebuild of the datagene.com.au website. These are not included in these financials.

TABLE 8: Balance Sheet 2022-23

BALANCE SHEET BUDGET	2022-23
Total current assets	2,376,000
Total non-current assets	4,578,000
Total liabilities	2,362,000
Net assets	
Assets	6,954,000
Liabilities	2,362,000
Net assets	4,592,000

TABLE 9: Cashflow 2022-23

CASHFLOW FROM OPERATING ACTIVITIES	
Receipts from clients	6,222,000
Payments to suppliers and employees	5,845,000
Net cash provided by operating activities	**377,000**
BAS In/(Out)	**(369,000)**
Cash flow from operating activities	8,000
Cash used in investing activities	(99,000)
Net increase / (decrease) in cash held	**(91,000)**
Cash at end of the financial year	**1,800,000**

Appendix 1: Glossary

Abbreviation	Description
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
ADF	Australian Dairyfarmers
AGBU	Australian Genetic and Breeding Unit
AGM	Annual General Meeting
API	Application programming interface
BPI	Balanced Performance Index
BRD	Business Requirements Document
CDCB	Council for Dairy Cattle Breeding
CDR	Central Data Repository
CRDC	Cotton Research & Development Corporation
DA	Dairy Australia
EBITDA	Earnings before interest, taxes, depreciation, and amortization
GESNP	Genetic Evaluation System, New Platform
HIISSG	Herd Improvement Industry Strategic Steering Group
ICAR	International Committee on Animal Recording
iDDEN	International Dairy Data Exchange Network
KPI	Key performance indicator
NHIA	National Herd Improvement Organisation
RDP	Regional Development Program
SME	Subject matter expert
SNP	Single nucleotide polymorphism