Terms of Reference
Call for Genetics Projects
National Livestock Genetics Consortium (NLGC)

Summary

Meat & Livestock Australia (MLA) is seeking Full Proposals from individuals, organisations or project teams with the capability to undertake research, development and adoption (RD&A) activities in the Livestock Genetics sector that achieve outcomes in line with the priorities of the National Livestock Genetics Consortium (NLGC).
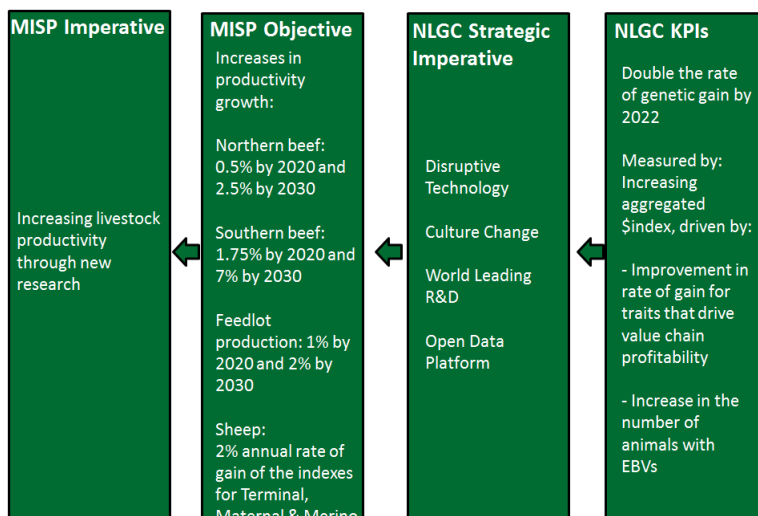
Background

The NLGC was established in October 2016 and is governed by a skills based taskforce. The primary aim of this initiative is to significantly increase the rate of genetic progress achieved for traits that drive value chain productivity in the sheep and beef industries. The Terms of Reference (ToR) is based on the RD&A priorities from the NLGC, as well as the 2018/19 National priorities sheepmeat and grassfed beef R&D.

There is an opportunity to increase the rate of genetic gain across all sectors of the red meat industry and to align genetic investment to value chain outcomes in order to improve commercial profitability. The implementation of RD&A as well as improving adoption in livestock genetics will in turn improve productivity, a common goal of industry strategic plans. New partners and collaboration to drive proof of profit and consequently adoption is one goal of the NLGC. Proposals should include engagement from participants that will contribute to innovative industry progress.

Project proposals will be reviewed by the NLGC Taskforce to assess alignment with NLGC's strategic priorities. The NLGC taskforce acts in an advisory capacity to recommend appropriate projects for funding by MLA or MLA Donor Company (MDC). Final project approval will be subject to internal MLA governance processes and contractual agreement between the applicant/s and MLA or MDC.

Figure1. Projects must contribute towards achieving the Key Performance Indicators of the NLGC and the Meat Industry Strategic Plan (MISP):

MISP Imperative	MISP Objective	NLGC Strategic Imperative	NLGC KPIs
Increasing livestock productivity through new research	Increases in productivity growth: Northern beef: 0.5% by 2020 and 2.5% by 2030 Southern beef: 1.75% by 2020 and 7% by 2030 Feedlot production: 1% by 2020 and 2% by 2030 Sheep: 2% annual rate of gain of the indexes for Terminal, Maternal & Merino	Disruptive Technology Culture Change World Leading R&D Open Data Platform	Double the rate of genetic gain by 2022 Measured by: Increasing aggregated $index, driven by: - Improvement in rate of gain for traits that drive value chain profitability - Increase in the number of animals with EBVs

Objective

MLA and the NLGC are seeking Full RD&A proposals that improve genetic progress in the red meat industry through conducting research, development and promoting adoption of livestock genetics. Proposals that contribute to achieving goals of the NLGC and MISP 2020 through addressing culture change, linking genetics to consumer outcomes and new or novel genetics R&D are sought.

1. **Cultural change in the application of genetics** to drive genetic progress and increase productivity in the red meat and livestock industry. Specific areas within the priority include:
    a. 'Proof of Profit' using transformational, collaborative and multidiscipline genetics RD&A in both the cattle and sheep sectors;
    b.   Precise activities to improve genetics adoption and extension in the following areas;
        i. Seed stock beef and sheep enterprises;
        ii. Commercial beef and sheep enterprises;
        iii. Reproduction for 'Northern Beef' enterprises;
        iv.   Reproduction in sheep enterprises;
        v. Tools to make the use of genetics easier for producers
2. **Linking genetics to consumer outcomes and productivity**. Proposed work is to concentrate on delivering outcomes that will achieve greater genetic gains in carcase quality and quantity as a result of concentrating on a whole value chain approach, including links to objective carcase measurement technologies.
3. **Novel and Disruptive Innovation in Genetics R&D** including but not limited to projects that contribute to "multi-breed genetic evaluation" and "Genetic selection for feed conversion efficiency, weight gain, meat quality and fertility" The NLGC has a conscious appetite for 'Blue sky projects', proposals under novel and disruptive innovation in genetics R&D should contribute to the NLGC's primary objective.

Scope

The scope of the Genetics Project Call is national, although individual projects may be specific to certain regions, enterprises or species if beneficial to the industries overarching goals. The duration of projects will typically be 1-3 years and in some cases up to five years, especially where several cohorts of animals are studied.

Collaborative teams across institutions and internationally are encourages to leverage complementary skills including research, development, adoption expertise and investments. Participation of producers and engagement with producer networks is necessary, especially in setting and reviewing the direction of proposals.

Outputs and Outcomes

Proposed RD&A activities will meet agreed milestones which will identify progress (2017-2020) in achieving one or more of the objectives and outcomes identified in this ToR to result in the impact of improved annual rate of genetic gain in the red meat industry.

Outputs specific to each project must be clearly identified in the proposal and may include:
- Tools to enable the ease of application and use of livestock genetics
- Alignment of genetics to value chain outcomes to improve commercial profitability
- Practical tools, industry messages and packages that contribute to ease of application and on-farm decision support
- Milestone and final reports including progress, data, analysis and recommendations for future work, development and extension
- Records, data and information that will contribute to industry through 'Breeding Value Services' and the 'Accessible National Data Platform'
- Scientific, peer reviewed publications in Australian and international journals

Within these terms of reference, proposals will be at different points across research, development and adoption, depending on the area and emphasis. Outcome/s should be identified and may include:

- Results of testing adoption strategies, packages and introducing practice change on farm
- Records of producer consultation, engagement and networking
- Improving the productivity and profitability of beef and sheepmeat breeding enterprises that contribute to MISP 2020 targets

Confidentiality and intellectual property

Successful projects will be funded with sheep meat, grassfed beef levies or via the MLA Donor Company (MDC) funding mechanisms. In order for projects to achieve funding, they must be recommended for funding by the NLGC taskforce before going through the robust MLA governance process.

Applicants must identify any background intellectual property (IP) brought to the project and bring any background IP required that is not owned by MLA. All data and cited references must be acknowledged in the final report and it is the sole responsibility of the applicant to ensure copyright laws are not breached. Any Project IP may be incorporated and used in the Breeding Values Services and any National Genetics Data Platforms, defined in the proposal GUIDELINES, for further research consistent with NLGC program overview.

Where further information is available which may assist the successful applicant in meeting the requirements of the project, MLA will provide such information to the successful applicant.

The successful applicant will be required to enter into a standard agreement with MLA.MLA will share and discuss this proposal with members of the NLGC taskforce. Please acknowledge this freedom to operate.

Deadline for submissions and Further Information

Proposals must be received by MLA before 6pm AEDT, 22 December 2017. Late proposals will not be accepted. All proposals must be submitted on the NLGC proposal template electronically to MLA: livestockgenetics@mla.com.au

It is encouraged that MLA are informed of planned proposals before submission to assist in mitigating potential duplication and assisting in collaboration. Proposals will be acknowledged on receival and applicants will be advised in writing of the success or failure of their proposal within a fortnight of the next NLGC taskforce meeting scheduled in February 2018.

If you have any questions regarding the NLGC Project Call, or would like to discuss possible project applications, please email livestockgenetics@mla.com.au or contact;

Hamish Chandler
Program Manager – Genetics
Meat and Livestock Australia
hchandler@mla.com.au

Caris Jones
Project Manager – Genetics
Meat and Livestock Australia
cjones@mla.com.au