Many mills are interested in starting direct contracts for wool from Australian farms to satisfy the demand of the consumers who are wanting to know the story of where the wool came from.
So if you have got what the consumer wants, flaunt it.

Hence the blue pages in BTB and the wool mag. Hence the current Strategic Plan objective includes sustainability, and so should the new Strategic Plan.

Precise wording is:
Increase the profitability and sustainability of (our strategies are focused on responsible management, innovation, awareness and measurement) (our issues or categories are seen in the slide - healthy productive sheep (sheep health, vertebrate pests, genetics, reproduction and nutrition), farm automation and eco-credentials, fibre advocacy and feedbase.

Last Strategic Plan $36.5 million. New Strategic Plan there is $30 million in projects in contract (64%) or in draft. Hence strategy doesn't have any major changes to it.

OUTCOMES
As a result of AWI's investments Australia's woolgrowers will be:

- Widely utilising pre-operative pain relief for invasive procedures, or welfare enhanced alternative procedures. (2014 61-77% mulesed with pain relief, 2017 83%; 2017 42% for docking & castrating)
- Lifting the average weaning rate in Merino-Merino joinings (2016 85% MxM marking rates; LTEM marking rates for all breeds average a 4% increase).
- Reducing the impacts and costs of wild dog and other vertebrate pests on Australia's woolgrowers. (reports starting 2017 to date show 83% reduction in sheep loss -38k sheep - from wild dogs)
- Increasing the genetic and phenotypic aspects of lifetime economic performance of ewes in wool enterprises. (MLP data collection – raw data, corrected sire means published but not yet quantitative genetic analysis)
- Strengthen wool's reputation for environmental stewardship. (Released a paper critiquing the Sustainable Apparel Coalition LCA method)

Our next Strategic Plan objectives will be similar as 64% of current investments continue into it – pain relief is our only defense, lamb mortality is also a threat, wild dogs continue to invade, MLP data analysis is yet to be finished and we are still working on changing wools environmental ranking internationally.

In sheep health and welfare, we will invest nearly $6 million on: pain trials, breeding against flystrike, new fly prevention drugs, Paraboss, chemical resistance, biosecurity, the fly genome and footrot vaccine.

DETAIL

- We proved pain drug combination efficacy and started a drug review
- We mined genetics data for more producer advice on breeding flystrike resistance
- Continued researching the HDA enzyme site as a future drug target for flies
- And started researching fly and lice chemicals with silicon nanocoatings
- We supported Paraboss website, started demonstrating a more sensitive worm test
- Surveys started were looking for chemical resistance in flies and lice and the parasite practices survey
- In biosecurity we started the bale Bluetooth tracker, piloted the bale surface disinfector and piloted emergency disease training post farm gate.
- We collected genomics for flystrike risk factors
- We gene edited the fly to prove a new tool
- Started the development of a flystrike vaccine
- Relooked at the existing footrot vaccine
- Anticipated cost is $5.9 million

Over the next 3 years, we plan to invest $5 million on Paraboss, using a downsized breech flystrike resource flock for the fly genomics work, test digibale tag, finish off the drug work, finish both vaccine projects, treat photosensitization for new legumes, create a faecal consistency ASBV, look at fly pathogens and look at biological wool harvesting.

DETAIL

- To continue Paraboss - important for fly chemical resistance messages
- To continue to use a downsized breech flystrike resource flock for fly vaccine work
- Further test the Digibale tag for bale biosecurity and EAD training
- Complete all the chemical related research, new targets, improved drugs and the resistance survey
- Finish the foot rot vaccine 4% and the flystrike vaccine
- Fix photosensitization from our newer dryland legumes
- Create an ASBV for faecal consistency
- Take a brief look at fly pathogens
- Take steps towards biological wool harvesting 12%
- Flystrike is 60%
- other integrated parasite mgt is 17%
- Biosecurity is 4%
- Current cost is $4.7 million

If more funding is available, we can look to respond to market research if it supports the desire for in shed lice test and a new drench test, and we can also follow up on other pain relief leads or put more to biological wool harvesting.

In vertebrate pests we will invest $7.5 million on coordinators, cash grants to groups, a fencing machine, digital tools, training, rabbit biocontrol and minor pig tracking.

DETAIL

- We supported 9 wild dog coordinators
- Will have funded over 180 contracts with wild dog groups
- Funded a fencing machine in QLD
- Researched digital tools such as wild dog alert, trap alert and FeralScan
- Funded training
- Supported the rabbit biocontrol program
- Funded some pig movement tracking
- Anticipated cost is $7.5 million

Over the next 3 years we plan to invest $4.3 million on rabbit biocontrol, wild dog coordination, group grants and training.

DETAIL

- Investigating new rabbit bio-controls with CISS - already contracted 18%
- Wild dog coordination - already contracted 48%
- Assistance to groups – 28%

- Education and training 7%
- Anticipated cost is $4.3 million

If more funding is available, we could do more on feral pig control coordination and assessing bait best practice.

In Reproduction projects we will invest $5 million on lamb survival research, training, artificial insemination and reproduction data collection for genetic gain.

DETAIL

- Found ewe mob size impacts on lamb survival
- It is worthwhile correcting subclinical calcium and magnesium deficiency
- Grain does influence sex ratios
- We subsidised over 1200 LTEM places
- Developed new reproduction workshops
- Started trying to fix oestus syncrhonisation
- Started intensive data base of repro from MLP flock
- Anticipated cost is $4.9 million

Over the next 3 years, we will invest $3.4 million highlighting lamb survival – continuing LTEM, focusing on what we can get from cereals/grains and supplementation and precision management.

DETAIL

- Will continue with LTEM, and finish developing and rolling out a feedbase sister program - 62%

- Research cereal crop grazing and lamb survival
- Supplementation (protein specific) and lamb survival
- Research - 36%
- Make pregnancy scanning a better value proposition
- Extend messages on oestrognic sub clovers
- Anticipated cost is $3.4 million

In genetics we will invest $6 million on artificial breeding, MLP, and genetic benchmarking tools

DETAIL

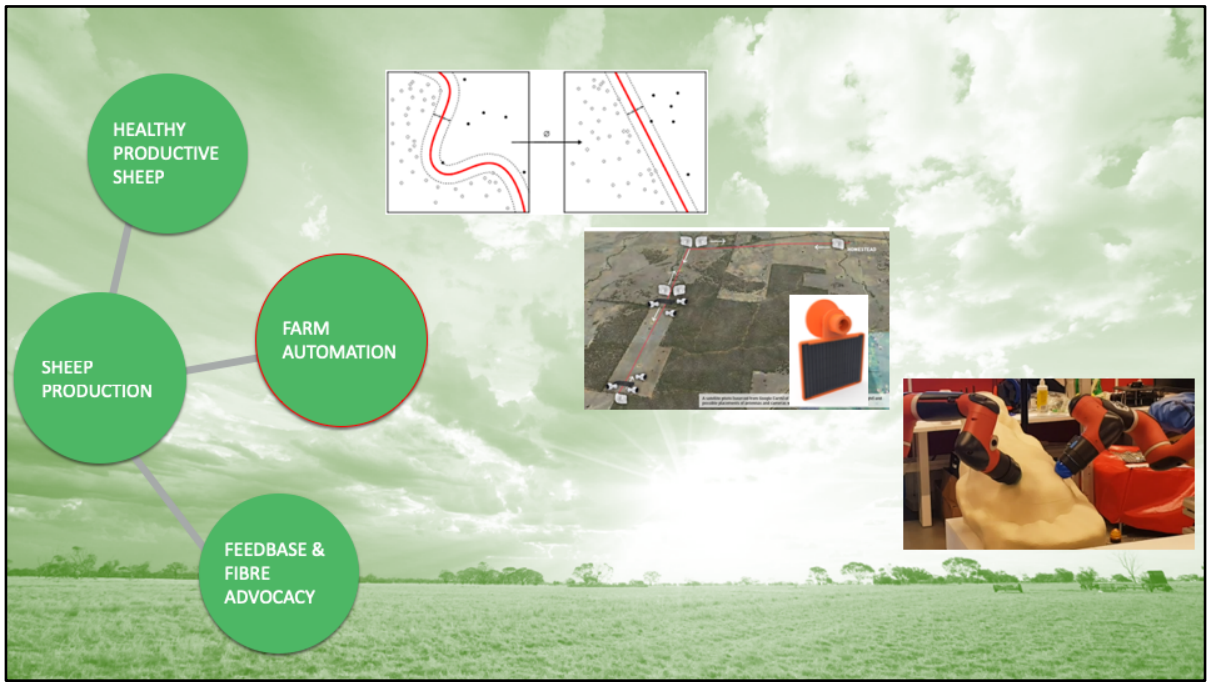
- Researched proteins that helped with cervical ai and researched sexed semen fertility
- Continued data collection in MLP
- Added projects to MLP such as wether data, disease/immunity data, feed intake data, repro data, a different and additional visual classing system
- Paid for drought feeding in MLP
- Paid for link sires in AMSEA
- Anticipated cost is $6.2 million

Over the next three years, we will invest more on genetics, currently at $6 million for MLP analysis, more reproduction data collection and looking at semen standards and analysis.

DETAIL

- Continue MLP and add on data collection – more reproduction data across sites
- Commence more intensive analysis towards the end of the Strategic Plan – not originally budgeted for
- Look at semen standards and predictors of fertility

- MLP - 50%
- MLP add-ons - 43%
- AMSEA - 3%
- Black wool - 2%
- Anticipated cost is $6.2 million



In Farm Automation we will invest $5 million on the AWI smart tag, virtual fencing, big data policy, within farm connectivity, encouraging university Ag-Tech innovations, robotic wool harvesting and machine vision learning.

DETAIL

- Further developed the now patented AWI smart tag and researched signatures for maternal parentage and mating
- We researched virtual fencing
- Supported defining limitations to the big data structures in ag
- We supported within farm connectivity
- Ag-Tech innovations in universities
- Automated and robotic wool harvesting
- Began machine vision learning with sheep images
- Anticipated cost is $5.3 million

Over the next 3 years, and with an increase to $6.5 million, we will complete functionality for the tags, support growers develop their own Ag-Tech, look at automated wool classing, continue with automated shearing.

DETAIL

- Farm automation is an enabling strategy so it cuts across programs
- Continue to define the signature algorithms for the smart tags on repro, predation, sickness and grazing - 22%
- Finish researching virtual fencing - 1%
- Support farmers own ag tech innovations - 4%
- Look at machine vision for farmer wool classing - 8%
- Take the first step to electronic shearer assist wearable technology
- Continue with fully autonomous and semi automated shearing - 54%
- Anticipated cost is $6.5 million

In our fibre advocacy programs, we continue promotion of wool for health, as a high performance fibre and its eco-credentials.

In wellness and high performance we will invest $2 million on eczema and sleep studies, breathability and fire resistance of blends.

DETAIL

- Furthered sleep health studies finding that certain groups of people sleep better in wool
- Finished preliminary skin health studies with sufficient evidence to start a major eczema therapy global trial
- Enhanced breathability and body odour evidence in support of the “live and breath” campaign
- Revisited modern blends for “service” professionals at the extremes
- Anticipated cost is $2.1 million

Over the next 3 years, we will invest $1.5 million to finish eczema, breathability and sleep evidence work.

DETAIL

- We will finish what we started on the global eczema study - 48%

- Deliver criteria for medical use of wool
- Analyse the NASA studies for opportunities
- Finish the extreme challenge evidence including absorption of toxins - 17%
- Finish the sleep evidence for menopause - 18%
- Anticipated cost is $1.5 million

Wool's impact on cognitive performance will be the next area to look at, once sleep and breathability work is complete. Eczema studies may entice partners for other medical evidence for skin and beauty.

For eco-credentials over the last Strategic Plan we are likely to invest $2.6 million on chemical use surveys on and off farm, evidencing an Life Cycle Assessment (LCA) method and starting on microplastics.

DETAIL

- On farm pesticide residue survey annually
- Processor chemical use survey
- Deconstructed challenged evidenced and rebuilt parts of the LCA method
- Started deconstructing the synthetics LCA
- Advocating our position on LCAs and eco-credentials
- Anticipated cost is $2.6 million

Over the next 3 years, we will continue current programs investing $1 million on advocating the improved LCA method, gathering data as evidence and questioning synthetics.

DETAIL

- Complete and advocate the improved LCA method
- Continue to gather evidence for the method (if not data), including microplastics
- Continue to question synthetics
- Continue with environmental case studies

- Come up with data for each component of an Australian LCA
- Anticipated cost based on current program is $1 million

If more funding is available, we could look at regionalized data to develop an LCA “number” for Australian wool.

Anticipate Feedbase will be shifted to under Reproduction area to align with the monitoring and evaluation framework.

In Feeedbase and eco-credentials projects, we will invest $2 million on initiating a feedbase extension program, researched 'P' efficiency and dryland legumes, started work on saltbush and crop stubbles and funded the Australian Pastures Genebank. We also undertook eco-focused case studies.

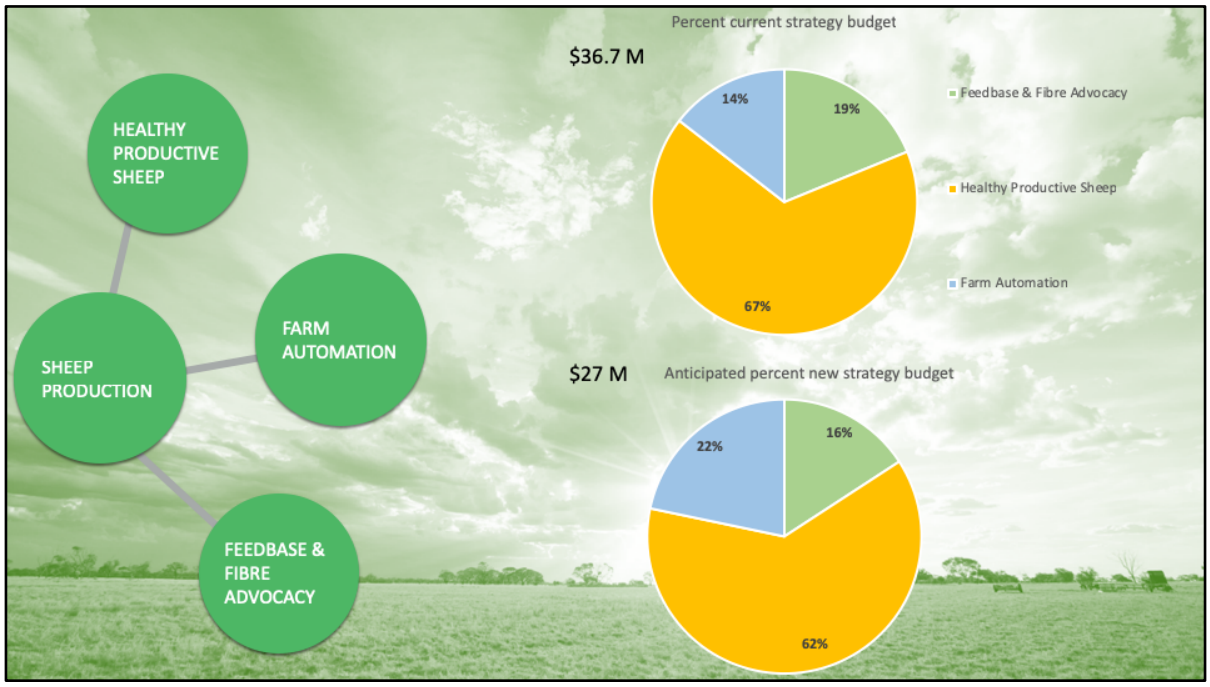
DETAIL

- Commenced work on an LTEM-style feedbase extension program
- We have researched 'P' efficiency and dryland legume species
- We started further saltbush and crop stubble work
- We funded the Australian Pastures Genebank
- And undertook woolgrower eco-credentials case studies (short and long term)
- Anticipated cost is $2.2 million

Over the next 3 years, we will invest $2 million finishing the four research projects, continuing to fund the Australian Pastures Genebank and the long term, eco-credentials case studies of woolgrowers.

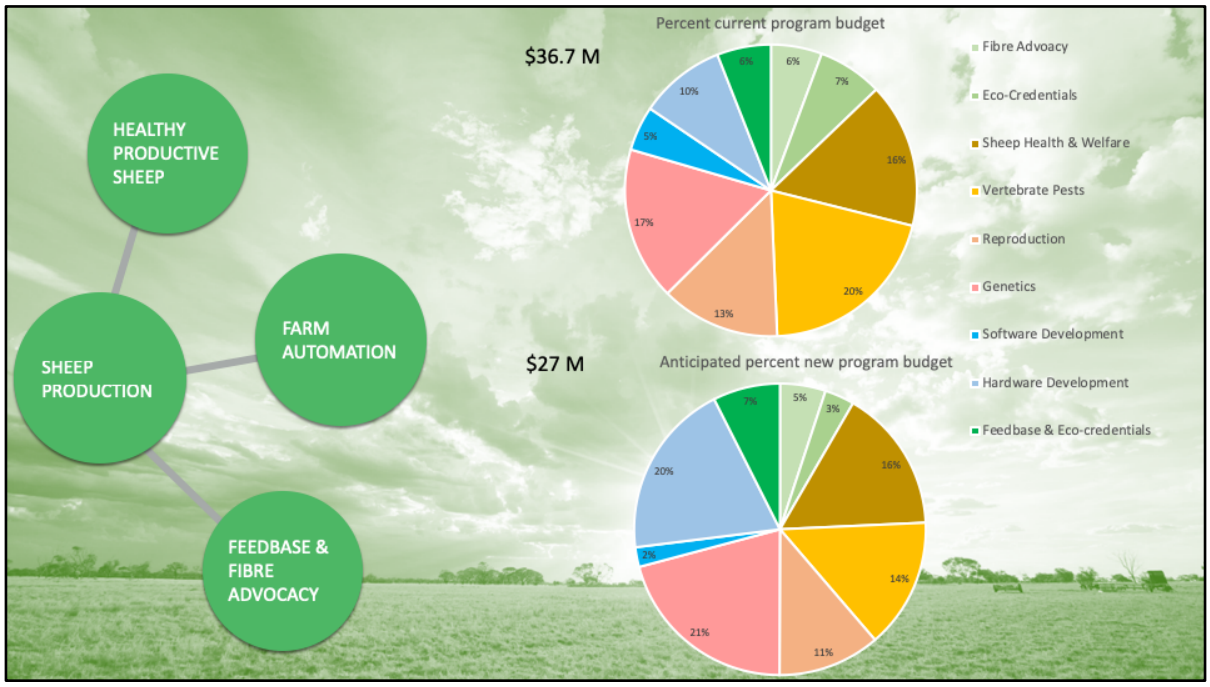
DETAIL

- Continuing the 4 pasture/crop research projects
- Continuing Australian Pastures Genebank funding
- Research - 60%
- Continuing long term, eco-credentials case studies of woolgrowers - 24%
- (Feedbase extension to move to Reproduction area)
- Anticipated cost is $2.2 million



SNAPSHOT

Farm Automation budget is increasing as we look for productivity solutions from automation. This also represents the investment into automated shearing of $3.5 million



This represent the projects that we currently have proposals or projects for.