gotta get...

final report

Project code: V.LDL.1606

Prepared by: Shaun Thompson
Savv-e Pty Ltd

Date published: 16 August 2016

PUBLISHED BY
Meat and Livestock Australia Limited
Locked Bag 1961
NORTH SYDNEY NSW 2059

Design improvements to Livestock Data Link

Meat & Livestock Australia acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

Table of Contents

1. Executive Summary

This report outlines the testing / feedback / update cycle of this final phase of the project to evaluate the design of the Livestock Data Link (LDL).

This includes:

- An introduction to the project, an outline of its objectives, and a summary of the discovery and design process that preceded this phase
- The prototype that was developed as a result of the preceding design phase, for the purposes of conducting user testing sessions
- The methodology of these sessions, including activities and interviews with users to observe user behaviour and record user feedback
- The feedback and results of these sessions
- The updates that were made to the prototype as a result of this user feedback, and our recommendations for next steps.

The principal findings were:

- Users found grid setup to be more user friendly
- The majority of users did not make good use of the “report buttons” introduced to give access to reports, and opted for the “report tabs” instead. Many users tried to use the “portal icons” at the top of the Analyse, Compare and Improve reports, as opposed to the report buttons themselves
- The “snapshot” was appreciated by many users, however it was ignored by some users
- Most users were generally able to access reports and glean relevant information, however, the “user flow” (drilling into reports) was not heavily accessed
- Many users experienced confusion around understanding which grid they were analysing against, or how to change this grid. When grids were changed, many users failed to recognise updated information in the snapshot.
- Fonts and colours were reported as needing improvement, to increase the visibility of information
- While many Processors appreciated the snapshot, there was the suggestion of keeping a “dashboard” element to maintain a timeline view of performance for the Processor account

The principal updates and recommendations are:

- To provide more intuitive and immediate access to feedback data, by: putting “no grid” data into the platform by default, introducing alternative ways to select/change the consignment/grid, and improving the home page layout to give quicker access to the available reports
- Changing “Compare” to “Benchmark” to remove ambiguity in the term
- To introduce portal landing pages for Analyse, Benchmark and Improve
- Introducing a Performance Summary report to provide “information at a glance” and encourage users to “flow” through the platform from here.

2. Introduction

The Livestock Data Link (LDL) is a tool that was developed by Meat and Livestock Australia (MLA) for the purpose of providing a centralised resource and feedback system within the livestock industry.

Livestock producers are able to use the tool to:

- Get information about non-compliant carcases, including those carcases that failed to meet target specifications and/or failed to meet MSA quality standards
- Benchmark their performance against other producers in the region or state
- Access solutions to improve non-compliant performance.

Livestock processors are able to use the tool to:

- Get information about their performance across all suppliers and target markets
- Benchmark suppliers by overall compliance to target specifications or by compliance to particular attributes
- Forecast performance against potential future target specifications.

MLA has engaged Savv-e to provide a User Experience (UX) design approach to evaluate the design of the LDL and address usability issues that have prevented uptake of the tool within the industry. This has involved three phases of design:

Phase 1 – Research, review and analysis. In this phase Savv-e conducted initial research into MLA, the LDL, and the wider livestock industry. Savv-e also developed an initial analysis of the opportunities for elevation.

Phase 2 – Application design. Savv-e then workshopped designs to evaluate the platform. This resulted in an information architecture, wireframes, interface design and prototype to communicate these designs and for the purposes of testing them. Note that Phases 1 and 2 are summarised further below.

Phase 3 – Design validation, pilot and finalisation. Savv-e then conducted user testing to pilot the above design elements. The results, findings and recommendations of this Phase form the bulk of this report.

3.Project Objectives

By undertaking this UX design approach, and by considering and implementing the resulting designs, MLA aims to:

- Engage more with the LDL user base, and expand this user base over time
- Improve the LDL to a more intuitive and user friendly system
- Provide a catalyst for users to take action and improve their performance
- Increase carcase compliance in the industry.

4.Phase 1 and Phase 2: summary

Prior to the current Phase 3 of this project (Design Validation) Savv-e conducted a research and review of the Livestock Data Link (LDL) in Phase 1, followed by the development of design recommendations in Phase 2. What follows is a summary of the key methodologies and results of these two Phases – a "how did we get here" outline of how we arrived at Phase 3.

Phase 1

Objective

The objective of Phase 1 was to review the LDL, establish success criteria for design elevation, conduct research into its user base, and analyse opportunities for improvement. Details of the methodologies and results of this Phase were included in the **Phase 1 Review Report**. What follows is a summary of this phase.

Initial research and audit

Our initial research included interviewing the primary MLA stakeholders to ascertain the business context and purpose of the LDL, and the drivers for success. In summary, these criteria were agreed to be:

- To engage more with producer and processor users
- To develop an intuitive and user friendly system
- To expand the user base
- To provide a catalyst for action
- To maintain a flexible and future-proofed data link
- To increase carcase compliance in the industry.

To supplement this research, Savv-e also conducted a content audit of the LDL to discover:

- The data available to a user in the system
- The reporting and analysis a user can conduct in the platform
- The grid setup process.

User research

Through stakeholder interviews, Savv-e also made discoveries into the target audience of the LDL so as to plan for and conduct deeper research into this user base.

Via surveys with members of this target audience and observed site walkthrough activities, Savv-e was able to gather information on who the users are, their goals when using the LDL, how they interact with the LDL and web applications in general, the value they get out of the LDL, and successes and failures in the LDL.

Key findings for producer users were:

- They varied in their computer literacy, skewed towards low.
- Infrequent use of the platform – once or few times per year.
- General agreement with the objectives of the LDL: to study and improve their performance.
- Grid setup is a major barrier to use the LDL.
- Platform itself is seen as useful, though lacking in narrative and explanation.

Key findings for processor users were:

- Generally, more computer literate.
- May use their own feedback system within their supply chain.
- Do/would use the LDL to form a better relationship with suppliers and improve their product.
- Also to rank suppliers and better target where to source produce to meet market specifications.
- Wary of rolling out LDL to their producers, due to lack of user friendliness of the platform.

Design elevation opportunities

Following this research into the LDL and its users, Savv-e conducted an analysis of the opportunities to improve the user experience of the platform. This included:

Benchmarking the platform against three relevant sites

- BoM Climate data site (User friendly and effective reporting)
- Jetstar flight booking (Simple and intuitive data entry)
- ABC news (Navigation and content organisation)

SWOT Analysis, with opportunities including:

- Improve data entry pathway for grid setup
- Introduce an 'LDL journey' and user flow
- Review and improve report presentation
- Provide a call to action – push users from analysis to how to improve

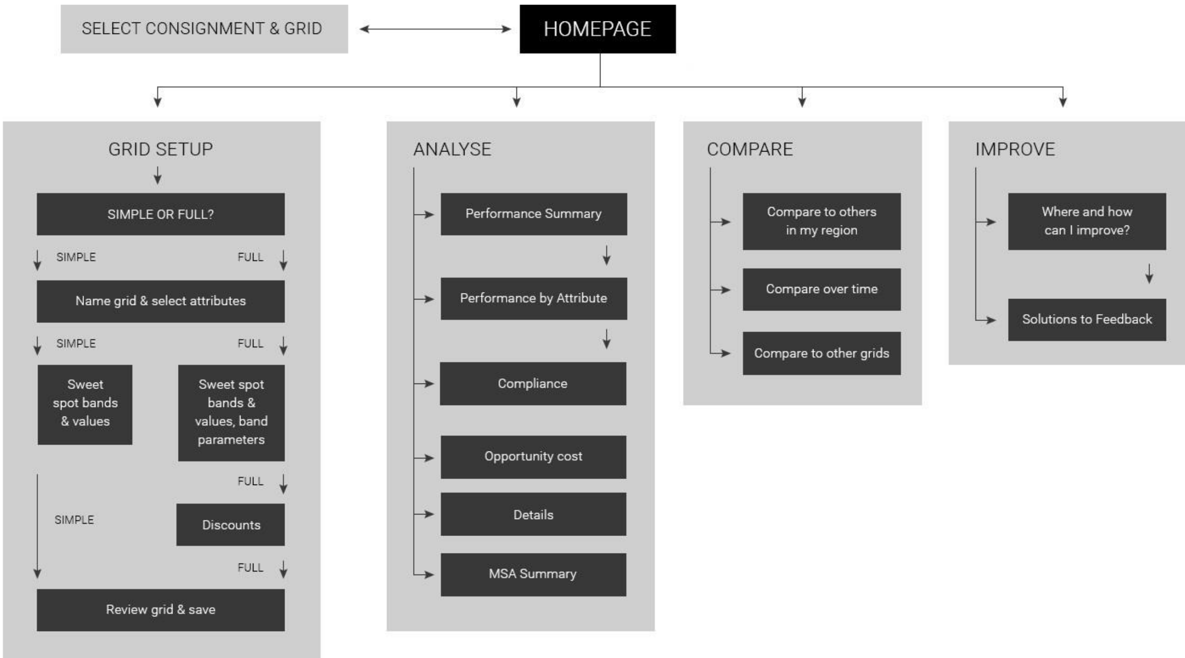
Phase 2

Objective

The objective of Phase 2 was to specify the elements of design elevation and produce design artefacts for the purpose of testing these designs. These artefacts included an information architecture for the platform; wireframes demonstrating intended functionality and user flow through key screens; an interface design to demonstrate the look and feel of potential new designs; and a prototype for the purpose of user testing.

Details of these artefacts were included in the **Phase 2 Design Documentation**. What follows is a summary.

Information architecture



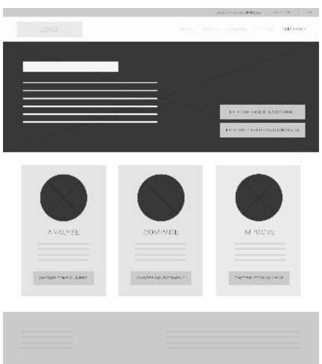
Key changes recommended in architecture:

- User to access Analyse, Compare and Improve reports from a home page base
- Grid setup has Simple versus Full alternatives
- User is able to drill into reports for further information (e.g. from Performance Summary to Performance by Attribute)
- Solutions to Feedback integrated into platform.

Wireframes

Key wireframes indicating new functionality and user flows were:

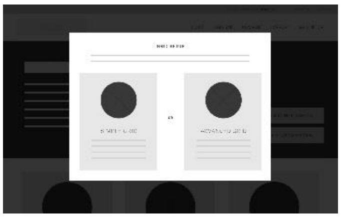
Home page



Home page presents initial snapshot consignment information to user and encourages user to select a consignment.

User can access Analyse, Compare, and Improve reports from home page once consignment is selected.

Grid setup selection



User given option to choose simple or full grid for setup.

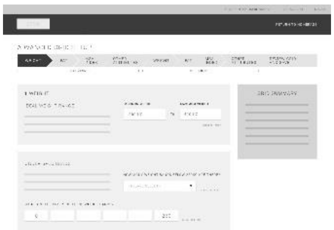
Simple grid does not include discount information, therefore doesn't allow analysis of opportunity costs.

Simple grid

User only needs enter maximum and minimum target values for each trait.

Pathway along top of grid setup indicates progress in grid setup.

Full grid

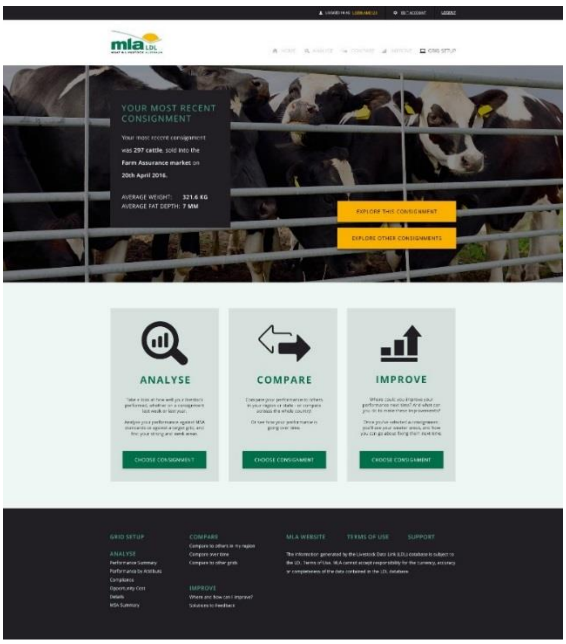


User must enter number of bands above maximum / below minimum target values, then what these bands are.

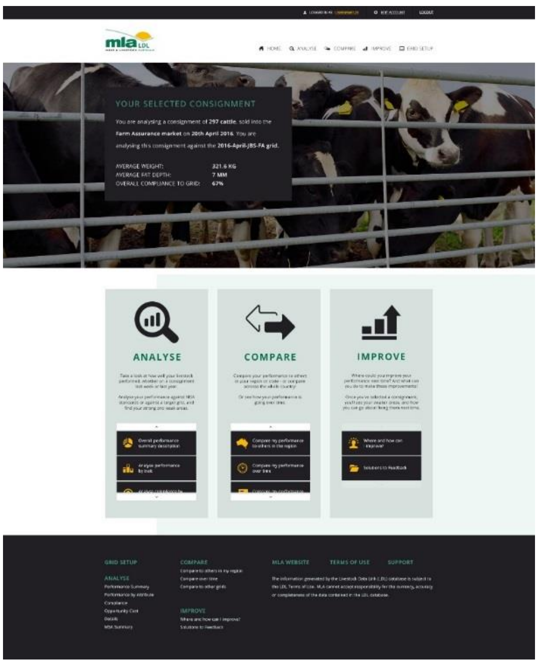
Interface design

Prior to building a prototype, Savv-e designed and delivered mock-ups to demonstrate the look and feel proposed for the new designs. Some key screens included:

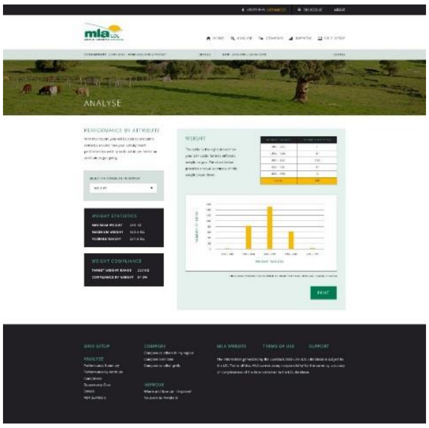
Home page (prior to consignment selection)



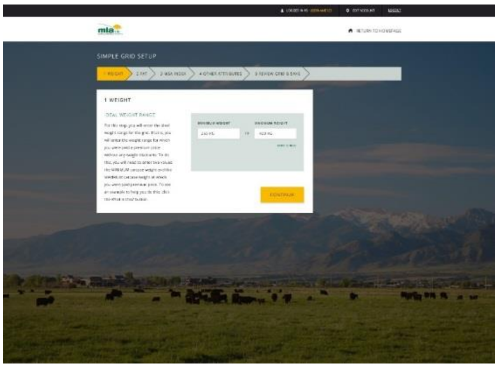
Home page (consignment selected)



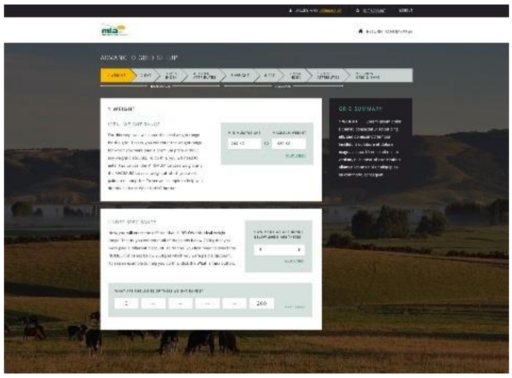
Sample report



Simple grid setup

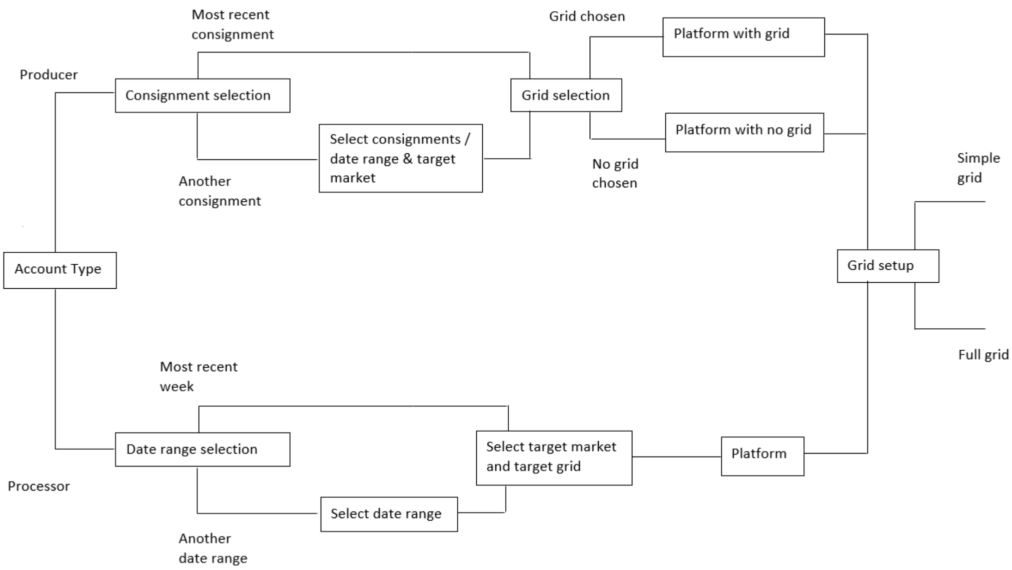


Full grid setup



Prototype

A prototype was built for the purpose of user testing. Note, this flowchart outlines the prototype delivered to MLA **at the conclusion of Phase 2**. (Based on stakeholder feedback, during Phase 3 the prototype was updated **prior to user testing**. Based on user feedback, it was then also updated after user testing.)



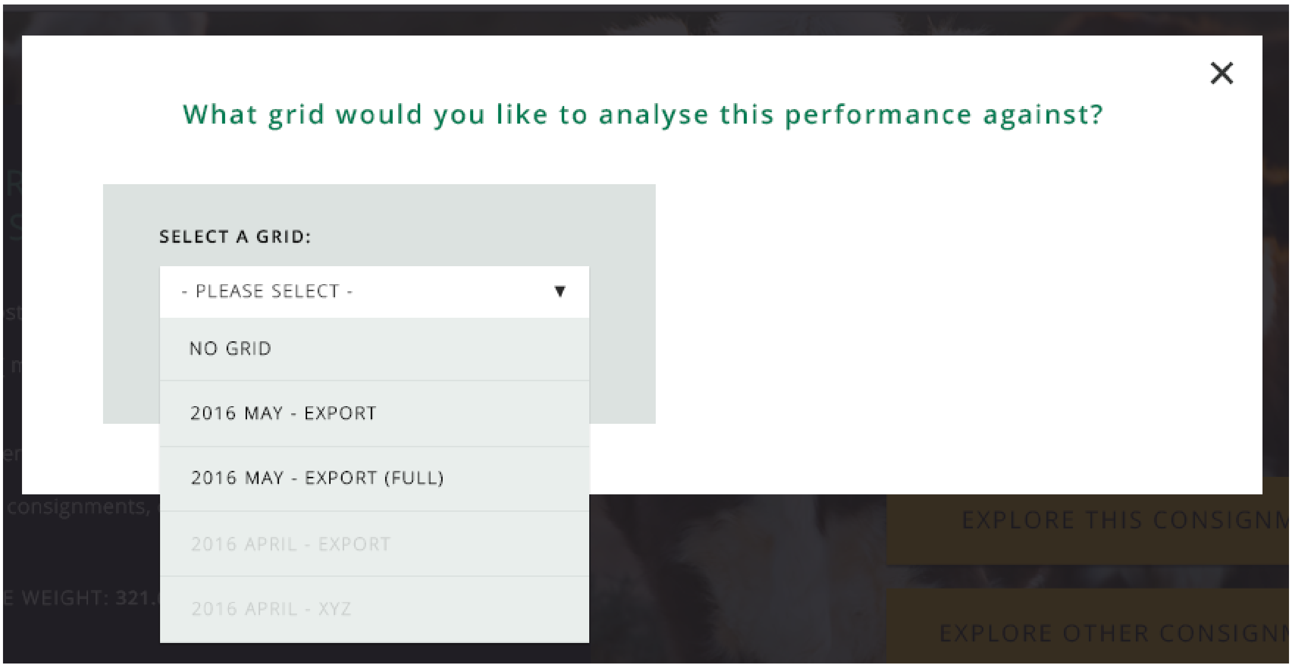
5. Prototype

The principal artefact developed during Phase 2 was the LDL prototype. This prototype was developed for the purpose of conducting user testing and collecting data and feedback on the proposed design elevations.

This prototype is summarised above, and the **Phase 2 Design Document** outlines the parameters of the prototype delivered to MLA. Stakeholders within MLA provided feedback on elements of this prototype, and we now outline the updates made to the prototype **prior to user testing**.

Target grids

The primary update made was to provide three grid options in the Producer account. Specifically, test users of the producer account could select between three different grids:

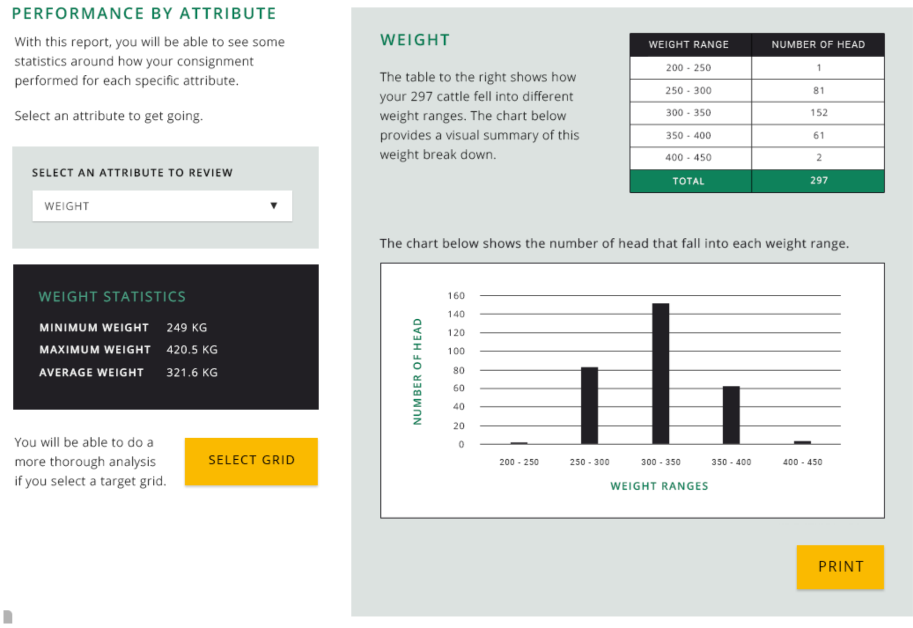


- NO GRID – The user is able to analyse performance against "no grid", i.e., without a target grid.
- 2016 MAY – EXPORT – The user is able to analyse performance against a simple target grid.
- 2016 MAY EXPORT (FULL) – The user is able to analyse performance against a full target grid.

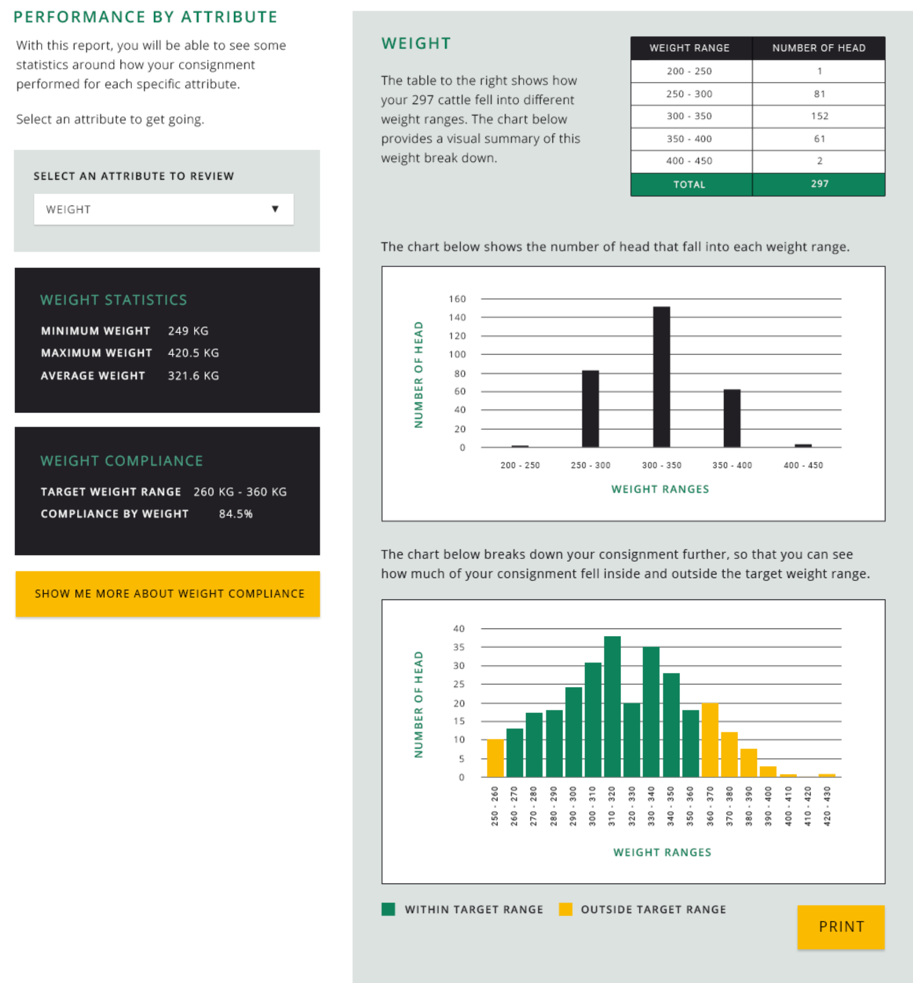
(Note that MLA stakeholders also provided feedback that the "no grid" option should be the default state for the account. Savv-e concurs, and this has now been included in the prototype. However, this feedback was not able to be implemented in time for user testing.)

The grid selected determines the amount of feedback available in the platform. Some reports are available at all three grid levels, with different levels of feedback. For example, for **Performance by Attribute**:

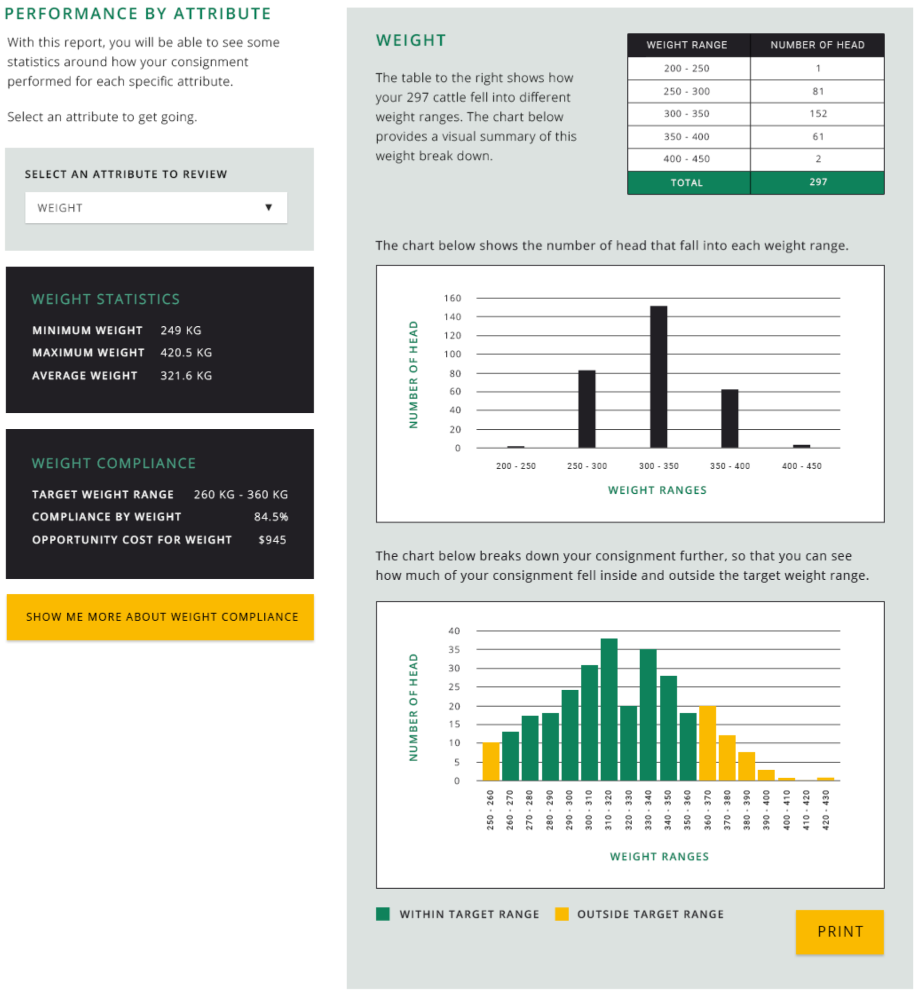
No Grid



Simple grid



Full grid



In addition, some reports are only available once an appropriate target grid has been selected. For example, as demonstrated in the prototype, the **Compliance by Attribute** report is only available once a grid has been selected. The **Opportunity Cost** report is only available for full target grids (not presented in prototype).

6. User testing sessions

Participants were engaged in various scenarios and completed activities within the prototype to observe user flows; gauge how intuitive and user friendly the design was; how easy it was to achieve the common LDL user goals; and collect feedback on what the test users thought and felt about the design.

Participants

A variety of producers and processors took part in user testing sessions:

- 5 producers
- 7 MLA staff that come from a farming background
- 5 processors (from across 3 processor companies)

Participants engaged in the activities corresponding to their respective roles: Producers completed activities in the producer account and processors completed activities in the processor account. Processors were also given a demonstration of the producer account to showcase the no grid / simple grid / full grid options.

Activities

Each participant was given a series of scenarios with goals to achieve by interacting with the LDL prototype. This is a vital component of user testing (supplemented by interviews with users, see below). By observing:

- How users interact with the system and how they “flow” through the platform
- Which features, functions and interactions they used effectively
- Conversely which features, functions and interactions they ignored or used ineffectively
- Whether or not they were able to achieve the assigned goals.

It also provided Savv-e with the opportunity to get an authentic picture of which design components evaluated the user experience and which components failed to evaluate the experience.

Participants were encouraged to “verbalise” what they thought and felt while using the system (“I’m confused about where I should click”, “I find this easy to use”, “I enjoy this”). With the signed permission of participants, they were recorded (video and audio) using a webcam during the activity. We also used screen capturing software to record the on-screen activity during the session.

The activities that participants completed are included in **Appendix A**.

Interviews

Following the activities, Savv-e conducted short interviews with the participants to record:

- What they liked and didn’t like about using the prototype
- What they found easy to use
- What they found frustrating, confusing or difficult
- What they would like to see that wasn’t there

Feedback from these activities and interviews is summarised in the following section.

7. User testing – findings

The user activity for each session was recorded via webcam (video and audio) and via screen capture. The footage for each session will be delivered to MLA separately. The raw results of these sessions are included in **Appendix B**, including performance in the activities and immediate feedback on these activities.

In this section, we outline the principal findings from these results, including:

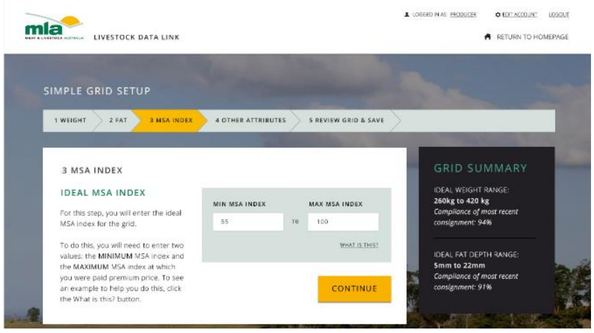
- The areas of the platform participants seemed to use easily and well, and aligned to the LDL goals.
- The areas of the platform that were a source of frustration, confusion or difficulty for participants.

Producer account

Grid levels and grid setup

Producers were given activities to explore different grid levels (no grid, simple grid, full grid) and grid setup (simple and full). Processors were also given a demonstration of the Producer account, to highlight the levels of information available at the different grid levels.

Producers found the simple grid setup process easy to follow – with the significant caveat that **interpreting** grids was not a part of the activity. It was discovered during Phase 1 that actually interpreting the grids supplied by processors was also a barrier to grid setup and thus using the LDL. The design elements introduced do not directly address this issue, and our recommendation (see further below) is for MLA to consider providing training in this space.

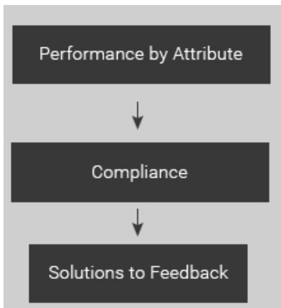


Processors unanimously responded well to the new "grid levels". While some would like to see the opportunity cost as part of their LDL rollout, all saw merit in the LDL experience using only simple grids.

To the extent that producers were also able to provide feedback on this, there was also a positive response. However, as explained below, there was some confusion amongst users which grid level they were analysing against. Savv-e's recommendation is that, with the improvements now implemented to address this issue (see further below), MLA should provide guided demonstrations (as opposed to user test scenario activities) to a sample of users for feedback on the relative value of exploring the system at different grid levels.

User flow

While users were generally able to access consignment data and compliance information, most users did not follow the intended "user flow". For example, most users did not drill from the **Performance by Attribute** report into the **Compliance** report (via the *Show me more about weight compliance* button), but instead accessed the Compliance report manually. While this is not wrong, there is an opportunity to further encourage the "data at a glance then drill" approach.



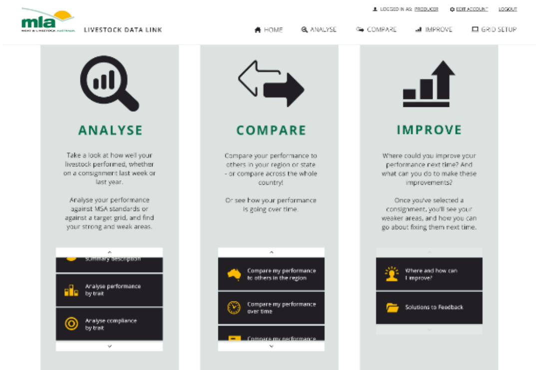
Snapshot

While most users reported liking the snapshot information and many used it appropriately, some users ignored it. It is also worth noting that many users did not recognise the fact that the snapshot changed when a new consignment or grid was selected. There was also some confusion around the concept of having to select a consignment and target grid in order to start getting feedback.

While the snapshot seems to be a good design element to keep, there is an opportunity to ensure those users who don't pay attention to it are still driven to get this information. That is, because many users appeared to make good use of the snapshot, we suggest that this is a good design element to keep. However, our findings suggest that some users will ignore the information within this snapshot. We recommend making changes (see the Updates, further below) to ensure that these users still get this information while exploring the LDL.

Areas of focus when accessing reports

Most users completely ignored the individual reports at the bottom of screen and accessed these through the Analyse, Compare and Improve tabs at the top of screen. When they did access the report sections at the bottom of screen, many expected the headings/icons themselves to be clickable. There is an opportunity to address how users see and access the reports in these portals.



Which consignment, which grid?

For most users, there was a challenge around the consignment and/or target grid selected. This challenge manifested in two related parts:

- When prompted, some users could not immediately confirm which consignment they were currently analysing or which grid they were analysing against.
- When asked how they would change the consignment or grid selected, many users struggled to respond and figure out how to do this.

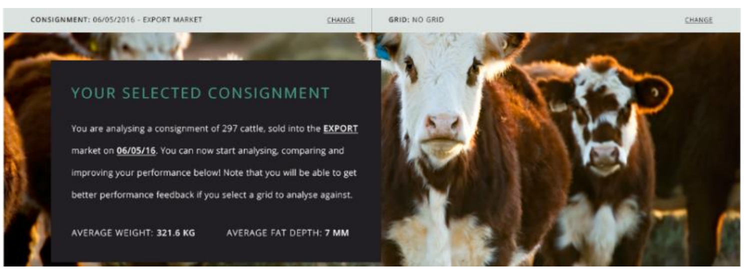
Opportunities for flow, reports and consignment/grid selection

Several of the above findings suggest there is an opportunity to revisit how users are presented with data; what prompts are presented for them to explore the data and flow through the platform; and how to manage the parameters of what the user is exploring (i.e. consignment and target grid).

Fonts and colours

Fonts were considered too small, and the colours of various elements made them 'invisible'. This includes:

- The snapshot. Responses to the snapshot were mixed: some users were immediately drawn to it and liked it; others ignored it and/or found the writing too small.
- The "Change Consignment / Change Grid" bar at the top of screen was often ignored.



Compare report

Many users naturally went to the Compare report/tab when asked to analyse their performance against a target grid. When questioned on this, users responded that they thought they were "comparing their performance to the grid". There is a level of ambiguity in how this term is interpreted.

Processor account

Performance at a glance

Most processor users appreciated the 'snapshot' view in the new design, i.e. information about their performance and target markets over the past week. However, some users reported that the 'dashboard' of the current design would still be beneficial, as it gives them a view over time of their numbers across different markets, from which they can drill further into.

Unlike producers, there seemed to be less confusion amongst processors around selecting a target market prior to start getting feedback. That is, while producers experienced confusion in having to select a consignment prior to 'getting started', processors did not experience similar confusion in having to select a target market prior to 'getting started'. Indeed, it appeared to be consistent with the way in which processors want to look at their performance: get a "wide" picture across all target markets and then drill into a specific market.

Issues with 'target' markets and grids

One test processor user reported a strong barrier still remains to rolling out the LDL in their supply chain: the approach to providing feedback that carcases are 'non-compliant' if they 'fail' to meet the 'target grid' within the target market. This processor reported that their payment structures differ and that this has the risk of sending the wrong message to suppliers.

Similar usability issues to Producer account

Processor test users reported similar frustrations as the producer test users such as:

- The lack of visibility of the snapshot.
- Confusion around selecting or changing the date range and target market.
- The report buttons at the bottom of the home page were largely ignored.
- The fonts were considered too small.

Supplier Ranking

Users were all able to clearly access and interpret the Supplier Ranking report. However, some users saw opportunities for stronger reporting options in this report, including:

- The ability to filter out suppliers that did not supply above some prescribed number of heads, e.g. 100 head so that the processor could focus on the level of compliance in their major suppliers.
- The ability to see and rank by breeders as well as finishers.
- Including overall compliance across all suppliers for the date range or period (i.e. the data in the Compliance report, integrated into this report).

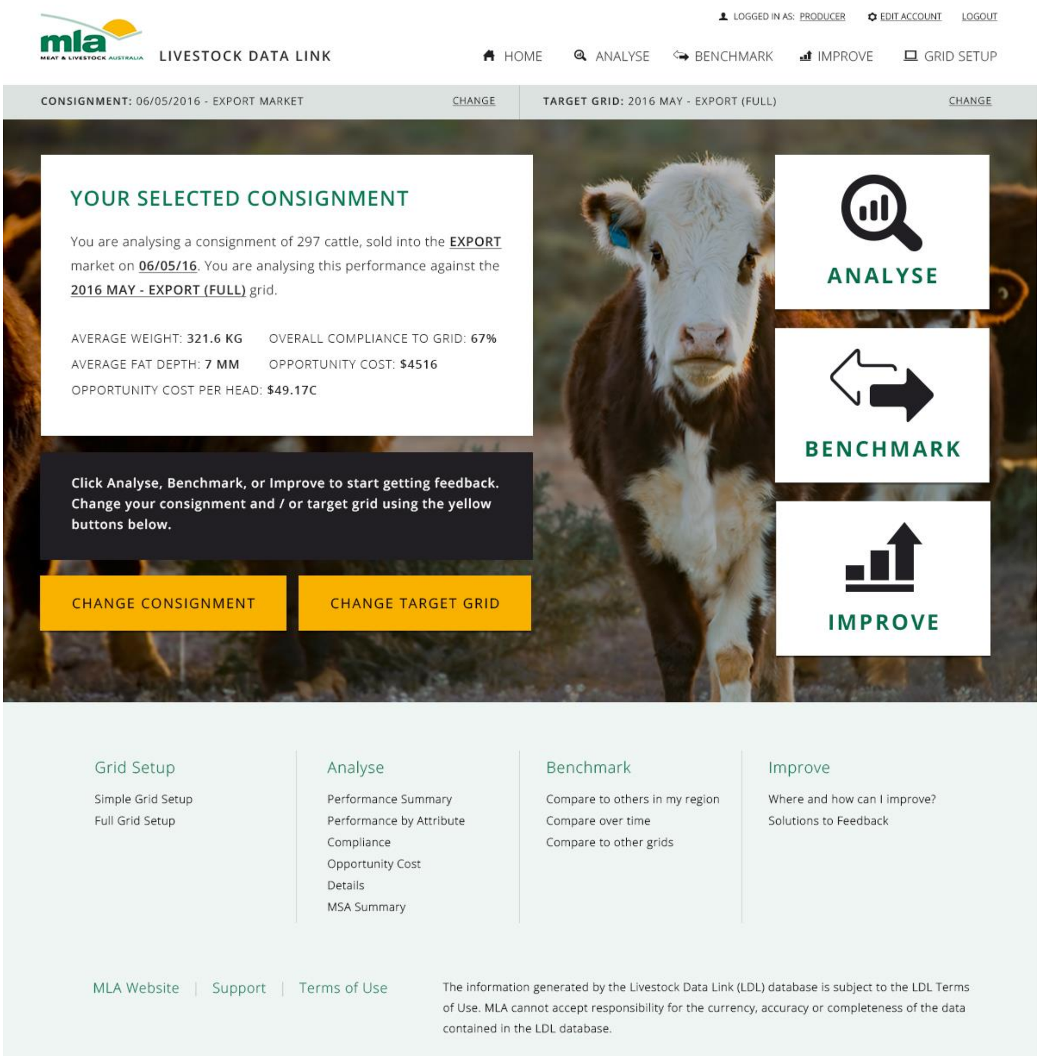
8. Updates and recommendations

Based on these findings, Savv-e outlines several key recommendations for the design elevation of the LDL. Some of these recommendations are reflected in the updated prototype, which has been delivered to MLA along with this report. Where relevant, Savv-e outlines these updates to the prototype in this section.

Note that not all recommendations are reflected in the prototype. Rather, Savv-e has made updates to reflect improved usability of the system. Other recommendations are discussed at the end of this section.

Producer account

The primary update and recommendation is to improve the manner in which people access reports and feedback in the platform. This is demonstrated in the updated home page.



In addition to changing the colours and fonts on this home page, to draw the user's attention to key components on screen, we have made several key updates to the home page. These are outlined below.

Immediate access to data and feedback

The user is now given immediate access to data and feedback.

How did it work?

In the previous iteration, the user was required to select a consignment to analyse (even if selecting the most recent consignment by default) and a target grid to analyse against (even if selecting 'no grid' to analyse against).

How does it work now?

At login, the Producer account now defaults to the most recent consignment and no target grid, and the user is able to begin exploring feedback on this consignment immediately. They do this via the Analyse, Benchmark and Improve portals (see more below).

As a result, note that there is now no longer any notion of a "home page **prior to** selecting a consignment" and "home page **after** selecting a consignment". This was a source of confusion and frustration for users, and we have been able to consolidate the experience into one home page. This is explained further below.

Consignment and grid selected

The above change has also allowed us to make a shift in how the user selects and changes their consignment and target grid. Savv-e updated the prototype with a view to making this selection more prominent and obvious.

How did it work?

In the previous iteration, at login the user was presented with a snapshot of their most recent consignment and immediately presented with the option of "exploring this consignment" (at which point they would need to select a target grid) or "selecting another consignment" (and target grid).

From that point on, the user changed their consignment or target grid via:

How does it work now?

The home page now presents two prominent buttons to the user.

These buttons are always present on the home page, prompting the user to access these if and when they would like to change the consignment they are analysing or the target grid they are analysing against.

What do the above two changes mean?

The principal intended impact of the above two changes on the experience is consistency. Upon login, the user now has a default consignment (i.e. their most recent) and a default target grid (i.e. no target grid). Instead of **selecting** these to 'get started', they now **change** these when desired.

Importantly, that means the experience is consistent throughout – in the previous iteration there was a disparity between (i) how a user **selected** the parameters of their analysis upon login; and (ii) how a user **changed** these parameters once selected. This was a source of confusion to many test users. There is now a single, consistent and more obvious way for the user to control these parameters.

Access to reports

Savv-e has given users more immediate access to the reports within the platform in response to feedback.

How did it work?

A common observation in user testing was that people ignored the individual reports within the Analyse, Compare and Improve sections at the bottom of screen, because:

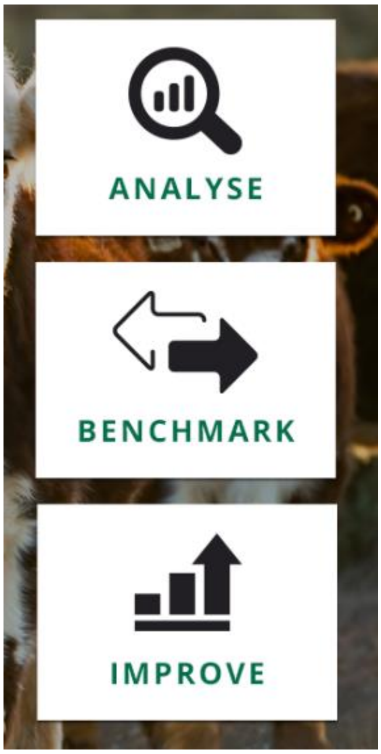
- These appeared "below the fold", i.e. users had to scroll down to discover them.
- The font was small and "they didn't look like buttons".
- The tabs at the top of screen were always present and fixed, regardless of the vertical position of the page at any given time, and thus these tabs were more prominent.
- Users reported that they expected to be able to click the Analyse, Compare and Improve icons, not the report buttons beneath them.

How does it work now?

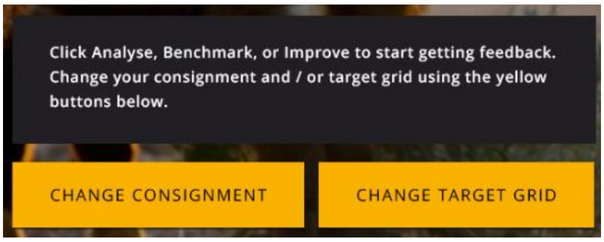
We have brought the Analyse, Benchmark and Improve buttons "above the fold" on the home page (note that "Compare" has been updated to "Benchmark", as discussed further below).

These three buttons are now simply presented as large headings and icons.

The user can click each button to arrive at the corresponding portal page (discussed further below) from where they can access the relevant reports.



We have included a prompt on the home page as a call to action for the user to access these portals.



Note that the user can also access these portals via the original tabs along the top of page. These tabs have been updated to provide rollover access to reports – on rollover each tab, the user sees all reports available within and is able to get 1-click access to these reports via this rollover.

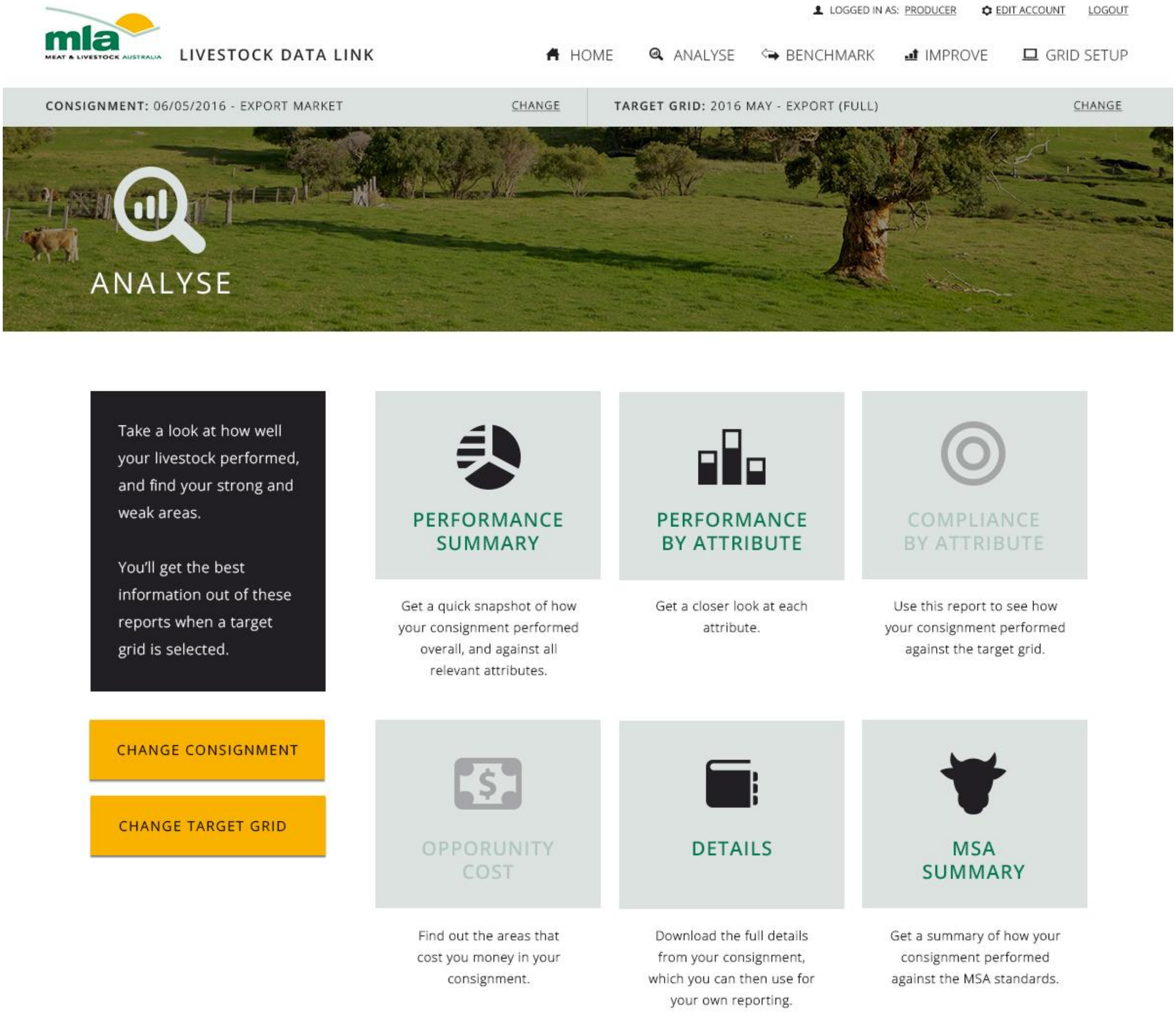
Compare and Benchmark

In line with findings from the user testing sessions, we've changed all instances of 'Compare' to 'Benchmark'.

Portal pages

In accordance with the above change to improve access to reports, we have also created landing pages for the Analyse, Benchmark and Improve portals.

This will bring more transparency around the available reports while ensuring each report is only two clicks from the home page for the user.

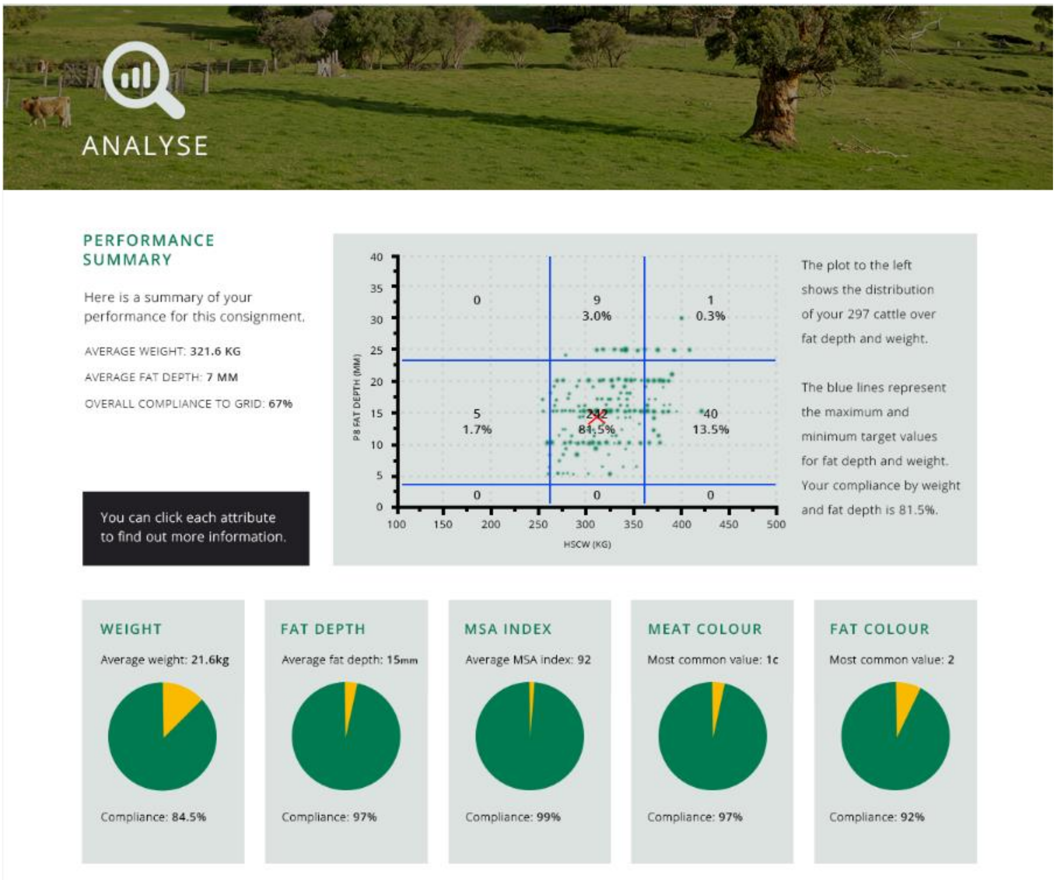


This was designed to improve the visibility and transparency of the reports available.

Note that, in consistency with the home page, the three portal pages all present **Change Consignment** and **Change Target Grid** buttons.

Performance Summary report

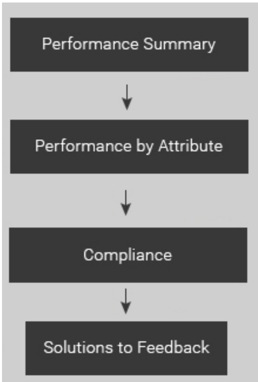
We've now included the Performance Summary report in the prototype.



We have done this to address two aspects of the user testing feedback.

User flow

User testing showed that, while users for the most part were able to navigate to the relevant reports and information in the platform, they did not make use of the avenues to "flow through" the platform. To address this, we've introduced the Performance Summary report as the natural starting point of this user flow.



Snapshot information

User testing also showed mixed results in relation to the snapshot. Many users were immediately drawn to it and reported liking it. However, some users ignored it and "jumped straight into" the feedback. The Performance Summary report duplicates the primary pieces of feedback in the snapshot. It does this in an unobtrusive way, so that users who already gleaned this information from their snapshot can easily move on.

Processor account

Our recommendation regarding the primary update to the producer account – the manner in which users access reports – also applies to the processor account. However, the details differ in how this update applies.

As with the Producer account, the processor home page has been updated to:

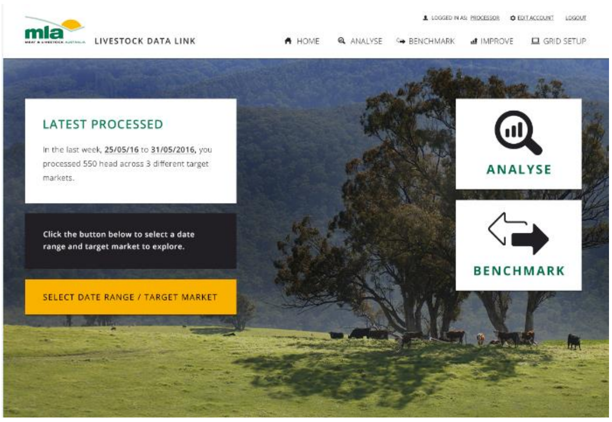
- Improve colours and fonts, to draw attention to key components on screen.
- Improve the manner in which users select and change their date range, target market and target grid.
- Provide easier and more transparent access to the reports within the platform.

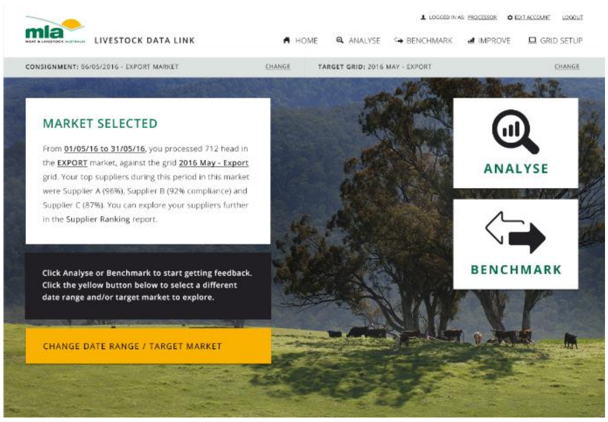
We will now detail how these updates have been implemented.

Before a target market is selected vs After a target market is selected

The Processor account has retained its current functionality in that:

- Immediately after logging in, the processor is presented with a summary of their **most recent week across all relevant target markets**
- Once they have **selected a date range and target market**, the home page changes, to present them with a summary of their performance, and they are given access to the reports.





The reason we recommend retaining this general format is that, as per the findings reported above, processor users generally appreciated maintaining a “wide” glance across all target markets, from which they can drill into a specific target market.

However, we are conscious of the potential confusion around effectively having “two home pages”. For this reason, we have consolidated the layout and functionality of these two states of the home page such that the user experience is as consistent as possible between the two states.

Prior to selecting a target market

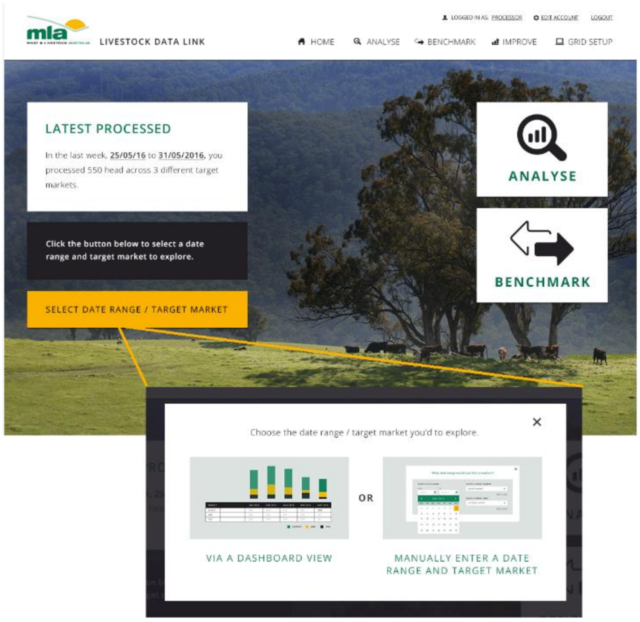
Here are the key elements of the home page prior to selecting a target market.

Snapshot

The user is presented with a summary of their performance over the last week: how many head they processed, and the number of target markets processed in.

Call to action

The user is told to select a date range and target market to being exploring.



Access to reports

As with the Producer account, there is more immediate access to the Analyse and Benchmark portals, as these have been brought "above the fold". However, these are not active prior to selecting a target market.

Selecting a date range / target market

The prototype has been updated so that, when selecting a date range / target market, the user now has the option of drilling to a specific date range and target market via a dashboard view. Note that they still have the option of manually entering the date range and target market as an alternative.

After selecting a target market

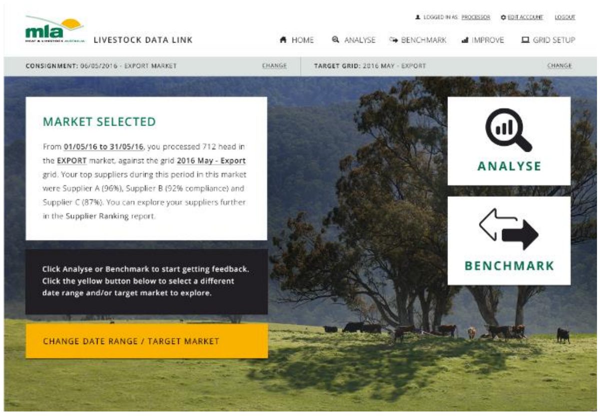
Here are the key elements of the home page after selecting a target market.

Snapshot

The user is now presented with a summary of their performance for the date range and target market selected.

Call to action

The user is told to start analysing and benchmarking their performance. They can also change the date range and target market being exploring.



Access to reports

These are now active and provide the user with access to the Analyse and Benchmark landing pages.

Changing a date range / target market

Just as they could **select** a date range / target market before, the user may now at any time **change** the date range / target market they are exploring. The experience is the same in either case.

Recommended next steps

Grid interpretation – training / reference guides

User testing demonstrated that introducing a simple grid setup gave producers a user-friendly option with regards to setting up a grid in their account.

However, as stated above, this user testing was restricted to the intuitiveness of entering grid parameters into the platform – **not** to interpreting the grids. User research suggested that **interpreting** the grids supplied by processors was a barrier for producers.

If consistent grid templates were used across the industry, Savv-e would recommend including a “sample” in the grid setup process as a demonstration of how to interpret and then enter thegrid data. However, grids differ from one supply chain to another.

One option is for MLA to offer to produce a *quick reference guide* per supply chain. This could be a 1-2 page PDF that shows a sample grid used within the supply chain (with dummy price information) together with tips on how to interpret target ranges (and discounts). See the following rough mock-up as an example:

These quick reference guides could be offered to a supply chain as part of signing up for the LDL. MLA could work with the processor to establish the guide, which the processor would then “own” and distribute to producers within their chain.

Offer LDL without full grid

The introduction of the no-grid, simple grid and full grid options within the LDL has allowed for a more user friendly experience for producers. It has also provided options for those processors who are reluctant to offer the LDL within their supply chain with discount information.

We recommend MLA offers the platform with the “full grid switched off” to those supply chains that have raised this objection in the past.

User testing: the next iteration(s)

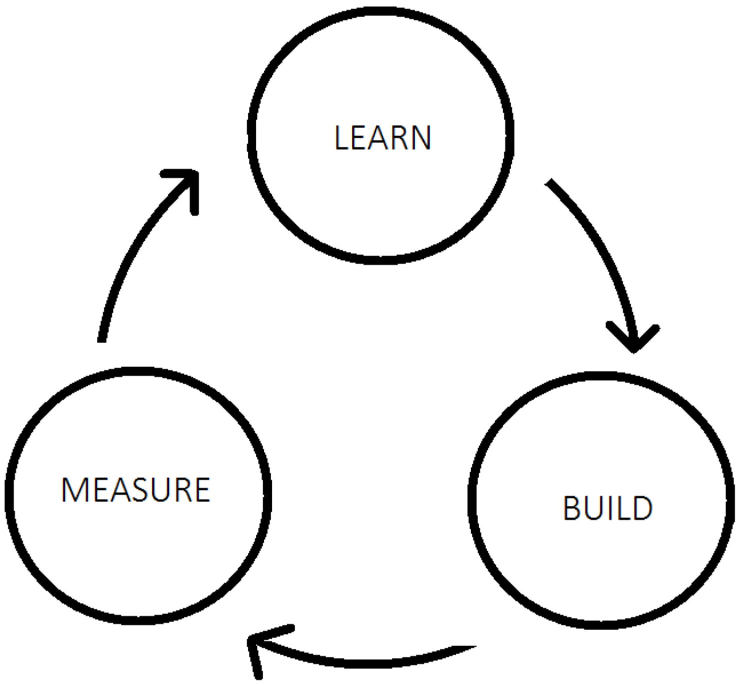
The design elevation process we have followed is iterative. Savv-e:

- Conducted initial user research (LEARN)
- Built a prototype (BUILD)
- Conducted user testing with this prototype and collected the results (MEASURE)

We then:

- Drew findings from this user testing (LEARN)
- Updated the prototype (BUILD)

MLA may develop a new LDL based on what we have found. However, we recommend continuing the iterative process:



The next step would be to MEASURE again – to deliver the (updated) prototype to users and measure its user-friendliness, areas where the user experience has improved, and areas where it still requires improvement. This cycle can then be repeated:

- Draw findings from this user testing (LEARN)
- Update the prototype (BUILD)
- Test the prototype with users (MEASURE)

Appendix A – User testing activities

Two activity sets were designed for the User testing sessions: one for Producers and one for Processors.

Producer activities

User activity #1 – Analysing performance without a grid

You are a cattle producer in the **New England** region of New South Wales. You will now be asked to complete some activities in the Livestock Data Link so that you can attempt to find and report on certain information about your performance **without a target grid** to judge against.

(i) What date was your last consignment?

(ii) What market was this consignment sold into?

(iii) What was the average weight in your most recent consignment?

(iv) What was the maximum and minimum weight in this consignment?

(v) In comparison to the rest of your region, which was higher – The average fat depth in your most recent consignment, or, The average fat depth across the region on the same date?

User activity #2 – Analysing performance with a simple grid

Prior to completing the following activity, set up a new **simple** grid taking into account the following:

- The relevant attributes to look at for this grid are: Weight (target range 260kg to 420kg), Fat depth (target range 5mm to 12mm), MSA Index (target range 55-100), Fat colour (target values 0 to 3) and Meat colour (target values 1b to 3).

Now, for this activity, you are the same cattle producer in the New England region, but you'd now like to explore your performance against the simple **2016 – May Export** target grid (already set up).

(i) What 10kg weight range (e.g. 350kg – 360kg) was the most common in your most recent consignment?

(ii) What was the % compliance by weight of the cattle in this consignment?

(iii) Which appears to be more of an issue, cattle being underweight, or cattle being overweight?

(iv) What information can you find (in the platform) about how to address this problem?

User activity #3 – Analysing performance with a full grid

Prior to completing the following activity, explore setting up a **full** grid in the system. (Note that the full setup process does not appear in the prototype, but we have provided some key screens.)

Now, for this activity, you are the same cattle producer in the New England region, but you'd now like to explore your performance against the full **2016 – May Export (Full)** target grid.

(i) What was the overall opportunity cost for your most recent consignment?

(ii) What opportunity cost did you miss due only to the out-of-weight-range component of your consignment?

(iii) Which appears to be more of an issue by missed opportunity cost, cattle being underweight, or cattle being overweight?

Processor activities

User activity #1 – The last week

Log in to the Livestock Data Link account and answer the following questions:

(i) How many head did you process over the last week?

(ii) How many different markets were these head processed across?

User activity #2 – Analysing May suppliers

Instead of exploring the last week, you'd like to explore how your **Export** market suppliers performed across the **entire month of May**.

(i) Enter information into the platform to make it clear that you are looking at:

- The month from May 1, 2016 to May 31, 2016
- Cattle in the Export market
- Analysing against the 2016 – May Export grid

(ii) Who were your top three suppliers into this market, by overall % compliance?

(iii) Which supplier(s) had 100% compliance to MSA Index?

User activity #3 – Setting up a grid

You'd like to set up a new grid, to predict what changes in compliance you might get based on historical data. Here is some context that you'll need as you set up a new grid.

- You **won't** need to look at opportunity cost against this grid
- The relevant attributes to look at for this grid are: Weight (target range 260kg to 420kg), Fat depth (target range 5mm to 12mm), MSA Index (target range 55-100), Fat colour (target values 0 to 3) and Meat colour (target values 1b to 3).

Set up this grid in your account.

Appendix B – User testing results

The following table documents the direct results of the user testing sessions.

	Processor
	MLA representing “Producer”
	Producer

Date	Participant	Activity results	Feedback
5/7		• Did not notice snapshot straight away, but eventually got correct info from it. • Used interface (date selection, accessing reports, grid setup etc.) proficiently. • However, did not notice reports at bottom of screen – accessed them through tabs at top. • Change consignment / change grid bars did not stand out. Not obvious how to change dates, grid, etc.	• Didn’t notice snapshot straight away as used to dashboard, but, did report liking the snapshot. • Liked that it was more “visual, bright, clean” • Would like hyperlinks to be active, e.g., click Supplier Ranking to see report. • Would like to see yellow “change” buttons. Wasn’t obvious how to change consignment/date/grid. • With Supplier Ranking report, also want to see averages overall across all suppliers (i.e. big picture for us).
5/7		• Did not notice snapshot until other options were exhausted. • Expected to see Supplier Ranking in Analysis tab rather than Compare. • Able to complete activities and use interface fairly easily.	• Overall feedback: found the platform more confusing than the current version, and prefers the current version. Seems busy. • Use to dashboard for Processor account, and would like to keep it. Very rarely use the type of information in the snapshot. Want to see data over the year and drill in. • Would like to be able to have an account “across all my plants”. • Snapshot needs to be far more visible/prominent • Rather graphs than tables and wording – would like to see the platform be more visual overall. • Would like to see more holistic report (similar to Laura’s feedback).
5/7		• When date range was changed, didn’t immediately notice that anything had changed	• Overall good points: cleaner, better explained, home page presents the data I want, mostly

		– but eventually noticed. • Expected underlined words to be hyperlinks. • Took a while to notice individual reports at bottom of screen. • Overall completion of activities was good.	intuitive, I don't feel like I have to put a bunch of data in to start using it. • Overall 'improvement' points: The reports aren't obvious to access, as they are beneath the main page, and they don't look like buttons. The LDL system doesn't address some issues we have around target grid – we don't want to say people outside of the target grid "aren't compliant". • Found issue with the logistics of the Supplier Ranking report, particularly the visuals (graph) as most Processors would have "between 2000 and 4000 producers", so you couldn't present them in a chart. • Would like to see some kind of filter or method to filter out "small" suppliers. e.g. Only suppliers with over 100 head. (As many small suppliers will have 100% compliance.) • Lot more wording explanation in this version, which is a good thing.
11/7		• First instinct was to click on yellow buttons. • Once a different date range was selected, was no longer able to get back to "last week's" snapshot data, and hence could not complete first activity. • Otherwise able to navigate system well and complete other activities.	• Overall good points: A lot simpler than current platform. Clear distinction between different sections, and explanations of what each section does. Grid setup was easy to use. • Overall 'improvement' points: The fonts were very small, and the snapshot was not obvious at all. • Would like to see more powerful reporting options in Supplier Ranking, e.g., can we rank by breeders as well as finishers? • Having the simple grid as an option is good – though I would eventually want to see my supply chain look at opportunity cost too.
11/7		• Looked to snapshot immediately, but then went straight to 'Explore this consignment'. • Went to click on 'Analyse', i.e., the box itself.	• Overall, really liked the platform, easy to use. • Would like to see some more reporting options, e.g. o In Benchmarking, would like to be able to

		But then successfully found the relevant report. • Seemed to intuitively use the platform extremely well in finding the reports and the relevant data within them. • While Tristan found the relevant info for improvement, he didn't get there via the Compliance report, i.e., through the call to action. • Once full grid was selected, didn't notice change in snapshot. Went straight to reports to look for overall Opportunity cost info.	filter who I compare to, e.g., maybe I want to only include cattle with dentition = 2, and see how my cattle compare to others within that. o Would like to get information about how different attributes relate to one another, e.g., what are my % compliances across different attributes if I only look at underweight cattle? i.e. is there some relationship? If I improve their weight, do I also improve other attributes?
14/7		• Got snapshot info straight away. • Expected "no grid" to be default option. • Used tabs instead of individual reports. • Proficiently used system, reports/data seemed to be where Lisa expected. • Good use of anticipated user flow, i.e., from Analyse drill into Improve. • Took a while to find the "Change grid" section, but eventually found it.	• Good points: I like the layout; it's laid out in a relevant way. • Areas for improvement: Want more of a prompt to ask me what consignment/grid I'd like to explore. Navigation/interaction of reports at bottom of screen wasn't great. • The platform should give you access to your data, with no grid, by default. • Also, when I select a particular consignment, the system should know what target grid it was paid against, and this should be in the system by default. • Definitely value the full grid, i.e., would want to see opportunity cost in the platform.
14/7		• Went straight to snapshot, but reported "gut instinct was to press Explore this consignment". • Used tabs instead of individual reports at bottom.	• Good: I saw what I expected to see (or I've confirmed that it will be there, in the full platform) • Area for improvement: Not guided enough to the areas I need to go. I missed things. • Expect to see my data as soon as I click Explore this

		• Didn't notice the "Change consignment/grid" bar at top (changed grid via an ad hoc button within a report). • Expected to see some way to drill into the relevant part of the Solutions to Feedback for overweight cattle, but didn't identify this in the platform.	consignment. Don't want to have to select a grid. • Weight statistics should include "carcase weight" in unit of measurement. • I expect to be able to click portal headings, not reports. • Would like to see more visual representation in Compare to others. E.g. bands to show how my min, avg, max compare to others min, avg, max. • Whenever I click a button to go to an overlay (e.g. to change the grid) I always expect to go back to the page I was on once the overlay is gone. • I see "Compare" as "compare to the grid". There's ambiguity in the term. • Opportunity cost is an important piece of information to retain in the LDL.
15/7		• Immediately drawn to snapshot. • Found relevant reports quite quickly, through buttons at bottom of screen (many users didn't do this). • Performance by Attribute: Didn't initially notice summary info to left of screen. Only paid attention to table/chart on right. • Able to access, broadly interpret benchmark data. • Able to use grid setup proficiently. • Thought should use "Compare" when looking to compare performance against a grid. Did not expect to get any info from Analyse. Got caught up on this point for some time, and did not think to go anywhere else in the platform. • Once full grid was selected, didn't notice the opportunity cost information in snapshot or various reports.	• Despite not being able to do a lot of the activities, I liked it, feels cleaner. I feel I would have done better just looking around, without a 'test'.
15/7		• Overall proficient use of system. • Got information from snapshot, then on first attempt went to reports for information correctly. • Selected incorrect grid at beginning.	• Would like to see the system remember common values in the grid setup. • Liked the three columns of reports. • Liked the visuals inside the reports. • Would like to see Performance by Attribute report

		- When returning to get more info from reports, this time did NOT click the report buttons, and expected to click on portal headings/icons instead. - Went to improve information manually as opposed to drilling in from compliance report. - Didn't realise that wasn't analysing against a full grid – and didn't know how to change this once it was pointed out. (Eventually found it.) - Missed the updated snapshot after full grid was selected. Couldn't get overall opportunity cost.	and Compliance report consolidated, and call to action straight from there to Improve.
15/7		- By clicking on 'Explore this consignment', expected to see the information he was after. - Didn't immediately discover reports at bottom of page. - Once report section was found, expected to click on headers/icons, not individual reports. - Eventually found reports via the tabs. Used these instead. Once reports were accessed, was able to get info within them. - Didn't follow prompts to drill into reports, e.g., from Performance to Compliance. - See "Compare" as meaning "compare to grid". - Didn't realise they weren't analysing against a full grid.	- Font too small on snapshot. - Liked info in snapshot and dark boxes. - Would like to see more of a description of what you should be doing as you go through grid setup. - Don't think "Opportunity cost" is common terminology – people may not know what it means. "I was confused about how many grids I've got going on."
15/7		- Went straight past snapshot and straight to Explore this consignment. - Generally fairly confused/frustrated by report section at bottom of page. - Used grid setup process well, felt as though doing it right. - Expected to find all relevant feedback against	- Found it difficult to get detailed information – could get the snapshot clearly, but didn't know how to get more detailed information. - But liked the clean setup.

		the grid in the “Compare” tab. • Once inside a report, wasn’t clear on what info was there, e.g., finding information about compliance by weight.	
15/7		• Initial use of snapshot good – got relevant info from it. • After selecting consignment, expected snapshot to change (it does, but user didn’t notice… “It looks the same”) • After snapshot, scrolling to reports, not sure where to go for more information. • Expected to be able to click on Analyse icon. • Eventually got to reports via tabs at top. • Once at the reports, able to access the information intuitively. • Once within reports, followed “user flow” through reports intuitively. • Grid setup intuitive. • Confusion around changing the grid being analysed against. “Change grid” bar not obvious.	• Would be good if three main icons are clickable so you can access the information directly. • Within a report with options, e.g., different attributes, I’d like to see all attributes in a list (not just a drop down) • Like grid summary as you progress through setting up your grid, and grid setup overall is intuitive. • Like the “grid setup pathway”. • It wasn’t obvious how to change the grid I was analysing against, and once I did change it, I didn’t think to look at the snapshot again, so that information goes missing.
20/7		• Expected to click Analyse/Compare icons. • Followed prompt to click yellow buttons before taking in snapshot info. • Report buttons not intuitive – did not initially know where to click to get further info. • Eventually used tabs at top of screen. • Once accessed reports, was able to get info from them intuitively.	• Liked the three grid levels – could see producers using all three. • Imagine people could start with no grid to see the value in the platform, then some go on to use simple or full grid. • Ultimately $ is important, so full grid as an option is necessary. • Would be good to make it clearer that there are

		• Flowed through reports intuitively. • Grid setup was used intuitively. • Didn't know how to change the grid that was being analysed against. Eventually found it. • When grid was changed, didn't notice that new info appeared in snapshot – but successfully got updated info for reports.	three types of grid levels. • I'd like to be able to select the grid from a "template", i.e., have the processor effectively setup the grid for the producer.
20/7		• Went straight to Explore this consignment, straight past snapshot. • Scrolled down, found report buttons quickly. • Misinterpretation of the benchmark report, instead of comparing average fat depths, compared % compliance of fat depths. • Didn't immediately recognise where to go to set up a new grid. • Grid setup process intuitive. • Once grid was set up, instinct was to go to Compare reports. • Wasn't clear on concept of getting improvement information from platform. • Didn't know how to change the grid that was being analysed against. Eventually found it. • Couldn't successfully get opportunity cost info from platform once full grid selected.	• There was a lot of information in the platform, but I struggled to find the relevant information. • It seemed useful, but I would want to spend more time with it to work out how to use it.
21/7		• Ignored the snapshot – went straight to Explore this consignment. • Instinct was to click on Analyse etc. icons, not report buttons. • Didn't click on report buttons, used tabs at top instead. • Relatively good level of interpretation of reports. • Found Solutions to Feedback manually, but couldn't immediately work out how to	• The layout was great, but there was too much wording. People using this won't have the time to read all of that. • The font was too small in the snapshot and in report buttons. • Bar at top of screen, used to change consignment or grid was not obvious to use.

		navigate it.	