MONASH University

MONASH INDUSTRY TEAM INITIATIVE (MITI)

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Joint Dairy Industry MITI Project – Application Development

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PROJECT SCOPE

The Early Milk Collection Index (EMCI) is a raw milk risk assessment model used by dairy companies to make milk collection decisions that do not comply with current FSANZ Standards for temperature. The project was to initiate the development of the EMCI Mobile Application in replacement of its past Excel spreadsheet format.

BUSINESS PROBLEM

Current dairy industry procedure for assessing the suitability of milk for collection that does not meet industry standards for temperature, is not automated, nor user-friendly, which poses as a great inconvenience for out-of-hours issues. It also provides no way to analyze the EMCI assessments for trends.

PROPOSED SOLUTION

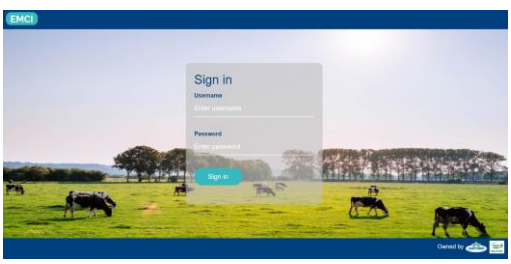
To develop a mobile application for the EMCI tool. This mobile application would empower tanker drivers to make better milk collection decisions without a network connection and provides a platform for further dairy industry collaboration. The mobile application will potentially be developed by DataGene.

PROJECT OUTCOMES

There were three main deliverables of this joint project.

1. WEB PAGES – PROOF OF CONCEPT

The EMCI tool logic was decoded to program a series of web pages which act identically to the past Excel spreadsheet model. The link for the coded web pages for user testing is given below:
Link: http://www.emcitool.ml/emci



2. BUSINESS REQUIREMENTS DOCUMENT (BRD)

The purpose of the BRD is to present the stakeholders' requirements for the EMCI Mobile Application completely.
The contents of the BRD include:

- Business Requirements
- User Requirements
- Actor Profiles
- Use Cases
- Business Processes and Business Rules
- Functional Requirements
- Non-functional Requirements
- Requirements Baseline and Traceability
- Future Considerations

3. MOBILE APPLICATION USER INTERFACE

The mobile application user interface is divided into two separate models, Parmalat-Model (P-Model) and Fonterra-Model (F-Model). Sample pages of the user interface can be seen below:

Fig.1: Sign In

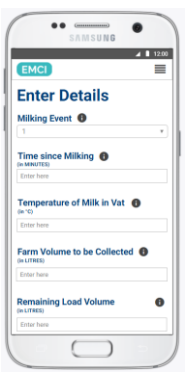


Fig.2: Enter Details

Fig.3: Accept Result

Fig.4: Reject Result

Fig.5: Inbox

Fig.6: History

KEY RECOMMENDATIONS

- Reducing the number of entry fields in the mobile application by incorporating geolocation detection and farm data mapping
- Incorporate the tanker driver's manual run sheet and the Dairy Industry Milk Cooling Curve in the application for easy decision making and proof of compliance
- Incorporate smart sensors that report live temperature and volume data which automatically populate application fields

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