



Notes on trip to Australian Research Council in Canberra - Tuesday 15th March

Overview

- Objective of trip was to look at an IMS equivalent application used to science research funding and to learn the success factors in their system improvement project.
- Met CIO, Application Operations Manager, Data Architects, Developers, Project Manager and three fund leaders for the business process.

Context

- The key reason the RMS v1.0 (Research Management System) was re-written was the application was developed on four different technology coding systems and this was unsustainable for the business to support.
- RMS v1.0 was inflexible and changes to application forms would take 2-3 months for development. The system limited workflow therefore many processes were managed outside the system.
- Functionality was out of date and needed modernising to move the business forward.
- A light touch ROI was conducted to see what vendors in the market could meet their requirements. None were able to accommodate their customisation.
- Current Australian Government recently introduced an initiative to share ICT capability across all Government agencies managing grants, however ARC was exempt due to the level of customisation required to manage the Science process.

Project Success Factors

- Strong partnership approach between the Business and the ICT group
- Move to a single technology platform to support the future needs

- Business requirements were drafted as outcomes as opposed to prescriptive requirements to give developers freedom to be creative about how the technical solution will be delivered.
- Used in house development team for development as they understood the system and the business the best.
- Had a working group from their external users to test development.
- Cost \$4.5 m over 3 years to rewrite.
- Had a well resourced team of 8 developers plus Project Manager, 6 Testers, 2 Business Analysts and 4 x Data Business Architects and 1 PM and supported by a Change/release management and UAT Manager.
- Used AGILE methodology for development with 3 week sprints to develop in small chunks. Had daily scrums with the business. Waterfall methodology would take too long.
- Documentation was kept to a minimum with no mock ups (Y Frames) or documentation to support the development except for key pieces such as the Word Cloud. The requirements and release notes were the only documentation to support the process as all the focus was on the development in collaboration with the business.
- Processes were integrated one by one, starting with the application phase. They “built the train tracks as the train was moving”
- Kept the requirements simple, as they could not cater for everything.
- Survey completed supported the benefits of - accuracy of information, reduced mistakes, better records; reduce the risk of human error. This was validated through a survey completed by users.

Business Process

- 176 General Assessors (Lead Assessors) are assigned by ARC - 80 are used for the main research fund. The specialised assessors that assess excellence and subject matter are chosen by the General Assessors not the ARC.
- It is a requirement of funding that each recipient assesses a number of applications each year. Most do, but a number are unable to comply with the requirement.

Features of RMS 2.0

- Easy configurable forms and fields can be built question by question and copied and pasted from process to process. Their Japanese sister city configured a version of their own application form in RMS v2.0 in one hour with no training.
- A Word Cloud was developed to match assessors with proposals based on an algorithm that checks key words within context of surrounding words, conflicts, ANZRAC codes and historical matches. The word cloud has up to \$10 million words and offers matches with 95% accuracy. Usually the remaining 5% is due to unavailability and conflicts.
- Assessors with conflicts are excluded by a series of rule based parameters including factors such as having an application in the current round, applicant not from the same organisation.
- Accommodates configurable scoring methodologies as well as a voting tool where panel members can vote on line for decisions. The scoring is operated by a 'Driver' and can be used to support in physical meetings on a screen or on individual laptops and is also used for remote assessment processes where there is a virtual meeting.
- Uses paperless e-contracting where nominated signatories are entered into the system and signing of contracts is workflow through to the signatories to approve online.
- Auto population of data

Team Structures

- Grants team (50-60 pax) is roughly split 50:50 with staff that specialise in Pre-Award processes (selection) and Post-Award (contract management). These staff are not science experts but are supported by a Science Executive and the Assessors for science content.
- The contract management team is primarily focused on the administration of the contract, managing payments, reports and milestone management.
- System was highly configurable, easy to use, saved the business significant time not having to manage manual processes. Each fund lead configures there own fund, they do not have a 'G & I Team' to configure or process workflow for them.

RMS Technology

Thursday, 17 March 2016

- RMS v0.1 was originally built on a Java platform. In 2010 moved to Dot.Net platform for supportability and access to contactors in the market.
- Integrates with finance system – (Great Plains). Other integration is with ORCID – capturing and verifying the ORCID ID. Not currently using the ORCID data real-time as they do not want to have the reliance of other systems in managing their processes. Other integration was limited as they were operating off spreadsheets and access databases.
- Needed to move to a single technology stack and data set to establish themselves for the future
- Looking to move to the latest version of SQL 2016 to improve the search capability.
- Documents were stored inside RMS as they did not have a standard ERMS at the time of the build. Their preference would have been to have the documents stored in EDRMS system.