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Data Driven Decision Making

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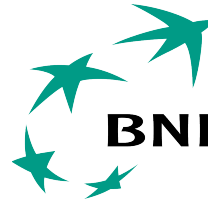
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WPI



BNP PARIBAS

Data Driven Decision Making

BNP Paribas

A Major Qualifying Project submitted to the faculty of

WORCESTER POLYTECHNIC INSTITUTE (WPI)

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

On December 20, 2013

Written by:

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Submitted to:

WPI Advisors: Arthur Gerstenfeld & Kevin Sweeney

BNP Paribas Sponsors: Philip Coleman & David Purdie

Abstract

This project investigated data reporting in various fixed income information technology (FI IT) management systems at BNP Paribas to produce optimized project reports for effective decision making. Our team conducted a series of interviews to understand the systems usage and developed conclusions and recommendations to improve project reporting for data driven decision making. A proposed reporting template was created and suggestions for future improvement were submitted to BNP Paribas FI IT.

Acknowledgements

We would like to thank the following individuals and organizations for their support and contributions to the success of the project.

- The project advisors Arthur Gerstenfeld, Kevin Sweeney, Jon Abraham, and Micah Hofri for providing us guidance and advice for our project.
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- The Fixed Income Information Technology teams for participating in our interviews and survey to provide information for the project.
- The Interdisciplinary and Global Studies Division of Worcester Polytechnic Institute for organizing the logistics of coming on-site for the project.
- Worcester Polytechnic Institute for providing us the opportunity to have a remarkable experience at the Wall St./London Project Center.

Executive Summary

As a competitive financial investment bank in the Eurozone market, BNP Paribas provides excellent services through multiple divisions. This project takes place in the Fixed Income business area of the Corporate and Investment Banking division. The bank's Fixed Income department offers various products to its clients and it is efficiently supported by its information technology (IT) teams. Within various IT systems, two systems used for project and task management at BNP Paribas are Clarity and JIRA.

Clarity is used specifically for reporting, time tracking in projects, and budgeting. In contrast, JIRA is a lower level management system used for time tracking in tasks and organizing a team's workload. The application of these systems assists in everyday business practices such as organization, collaboration, time management, and planning. Despite that the systems are used throughout the bank, each team within the department does not use the system in a standardized process causing inconsistent or poor quality data and reports. This can result in potentially losing or overlooking important data when managers and business sponsors are making data driven decisions.

Methodology

This project was completed in order to provide recommendations to improve the use of these systems. The goals of the project are to understand the Clarity's usage and best practice, investigate how to improve the estimate-to-complete measure (ETC) within Clarity and JIRA, and enhance JIRA's visibility and connectivity to Clarity. To accomplish these goals, the project team worked to complete the objectives to assess the current state of the systems and understand the ideal reporting to management.

A series of primary interviews were conducted using a list suggested interviewees provided by the project sponsors to understand the user experience with the systems. Using the information gathered from the interviews, a survey was made to collect specific data related to the Clarity Project Card, a monthly reporting document, the ETC measure, and JIRA's usage. The survey not only supplied information regarding the overall user experience but also showed interesting findings. These finding were further investigated through secondary interviews to confirm the data analysis and support conclusions. From

data collection and analysis, the project team developed recommendations to improve the use of the systems to support effective data driven decision making.

Findings & Discussion

The primary interviews revealed that Clarity is a system was recently implemented three years ago as a centralized management system to replace Project Office Zoo. Despite that many users feel that Clarity can be a powerful tool, most users don't fully understand its benefits and application to work. In addition, all users are not inputting data correctly at the lowest level, causing other data and reports to be inaccurate. Through the survey, it is found that the Project Card can be redesigned to remove or add components that better reports a project's progress. Following the survey, secondary interviews confirmed the data analysis and showed that the use of Clarity and its Project Card can be improved for management.

The ETC measure is supposed to assist management with budgeting, allocation of resources, and time tracking. However, the primary interviews prove that users are unsure of how to apply this measure in their work. Also, there is no standard method of calculating this value meaning it is not commonly used as well. The survey showed the feedback regarding the ETC and the various reasons of why users are not using this measure. Secondary interviews suggested that with more education on the ETC usage, it would be beneficial for forecasting.

The system JIRA is found in the primary interviews to be a useful tool with many internal features that helps produce data updated in Clarity. Regarding JIRA's visibility and connectivity to Clarity, the survey found a number of external tools being used to connect JIRA to Clarity. However, secondary interviews revealed that external databases between JIRA and Clarity are team specific and there is currently no direct linkage between the two systems.

Conclusions and Recommendations

Using the data collected from the primary interviews, the survey, and the secondary interviews, conclusions were drawn from the analysis and recommendations

were developed to improve the use of Clarity, ETC, and JIRA. For Clarity, a proposed Project Card template was designed to be used for trial or as a starting point for further improvements to be a more effective reporting document. If put on trial, this template should be regularly reviewed for continuous improvements. It is also suggested to investigate the potential of having customized Project Cards per team as it may be better applied in their work. Lastly, despite that there were initially resources for users to learn about Clarity during its quick implementation, it is essential to provide more training sessions to educate users to fully comprehend the system's benefits and various features in order to use Clarity to its full potential as a powerful management tool.

As for the ETC measure, FIIT should further investigate teams that are using this measure and understand how it is being used. It is suggested that BNP Paribas implement company-wide standards for teams to establish their ETC methods. To use ETC more accurately, the company may need to investigate how to account for the amount of actual effort in a working man day. Above all, it is helpful to track the improvements of project management with improved application of the ETC measure.

There were many qualitative data regarding JIRA and to enhance its visibility and connectivity to Clarity, two sets of recommendations were developed. For visibility, it is suggested to increase user access of JIRA throughout FIIT to allow users to view how other teams are using the system since many of the internal tools are not used. Along with this recommendation is to ask users to share best practices. Lastly, users should track improvements and understand how to further advance the system. Likely, for JIRA's connectivity to Clarity, it is suggested to further investigate shared data and understand possible connections. Then, these connections should be tested and evaluated for their effectiveness and plausibility. Again, it is important to track improvements if connections are made.

The conclusions and recommendations developed through this project is intended to be a foundation of further improvements to FIIT management and reporting. The data analysis and recommendations were presented to the project sponsors at the end of the

project to solicit feedback. The project concludes with the recommendations submitted to the sponsors and potentially used for improvements.

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Chapter 1 Introduction

BNP Paribas is a French financial investment bank, competing in the demanding Eurozone market. BNP Paribas declares its corporate and social responsibility as “living up to its economic responsibilities and working to finance projects for its clients” (BNP Paribas). The bank’s Corporate and Investment Banking division consists of five business areas including Global Equities and Commodity, Global Transaction Banking, Corporate Finance, Corporate Banking, and Fixed Income. For this project, our group will be working directly with the Fixed Income department.

Within BNP Paribas’ Fixed Income Information Technologies (FI IT) department, various project management systems are used. The two systems that our team observed throughout the project are known as Clarity and JIRA. Clarity assists in tracking the overall progress and budget allocation of projects. For FI IT Clarity is generally used by employees to create timesheets for projects. Most importantly Clarity is used to produce a Clarity Project Card that is reported to upper management. JIRA is used for real time task management. JIRA promotes communication and collaboration of project tasks throughout various features. Presently there is no standardized process for usage of these systems throughout the department, causing inconsistent data reporting.

An important feature of project management considers the Estimate to Complete (ETC) measure. This measure is used to express the estimated time or budget that is required in order to complete a project, task, etc. ETC does not have a formal calculation which allows room for customization. FI IT currently is using this ETC measure in project reports, though there is no generalized process for any of the execution areas.

The purpose of our project is to provide BNP Paribas’ Fixed Income Information Technology (FI IT) department recommendations for increasing efficiencies in data reporting that aid in data driven decisions. To accomplish this we have three goals. The first goal is to produce a more efficient Clarity Project Card that better represents data required. Our second goal is to provide a solution to improve the application of the Estimate to Complete (ETC) measure. The final goal is to provide transparency of JIRA

tasks and issues to management. To accomplish these goals, we will fulfill the following objectives:

- Assess the current state of Clarity and JIRA usage within FI IT
- Understand the ideal report generated for data driven decision making

These objectives were achieved through researching the systems under study, to better understand their requirements and capabilities as well as conducting interviews and surveys of FI IT employees.

Chapter 2 Background

This chapter provides a background with an overall scope of this project to detail important concepts and technologies used throughout the report. First, the chapter will explore BNP Paribas's current standing and the Fixed Income business area. Then, the chapter reviews the FI IT management systems called Clarity and JIRA. FI IT uses the output data from these systems for reporting and this chapter specifically examines the Clarity Project Card, the Estimate to Complete (ETC) measure, and the options of connection Clarity and JIRA.

2.1 BNP Paribas

The sponsoring company of this project is BNP Paribas, a French bank with headquarters in Paris and second headquarters in London, where this project will take place. This bank was formed as a result of a merger between Banque Nationale de Paris (BNP) and Paribas in 2000 and it has now become the fifth largest bank in the world by total assets (Top Banks in the World 2013, 2013). BNP Paribas was awarded the title "Bank of the Year" by The International Financing Review in 2012 (Bank of the Year: BNP Paribas, 2012). In the following year 2013, BNP Paribas is ranked 41st in Fortune Global 500 (Fortune Global 500, 2013). This universal bank operates in more than 80 countries with three major divisions including Corporate and Investment Banking (CIB), Private Banking, and Asset Management (BNP Paribas).

The CIB division is rated highly by the credit rating agency Standard & Poor and is also globally recognized as a leader in structured financing and various derivatives (BNP Paribas CIB, 2012). This division consists of five business areas: Global Equities and Commodity, Global Transaction Banking, Corporate Finance, Corporate Banking, and Fixed Income. There are more than 2,000 specialists in the Fixed Income business area and within this area there is the FI IT which supports the operations and provides necessary information for daily activities (Fixed Income Overview).

2.2 Fixed Income Information Technology Organization

For this project, we will be working closely with BNP Paribas's FI IT department. The goal of this department is to assist investment managers, corporations, financial institutions, governments, central banks, and public sector institutions with their investment in capital (BNP Paribas). The FI IT department is divided into 11 execution areas: Americas, APS, APS Electronic Markets, Asia, Credit, eCommerce, Front to Back, FX eTrading, Mumbai, Risk & PnL, and Security, Architecture & Governance. Each execution area consists of a single execution manager overseeing multiple program managers, project managers, team leaders, and team members.

While this project is completed specifically for the Risk & PnL execution area, each area uses Clarity and JIRA differently to extract the appropriate data for their teams. It is important to understand the similarities and differences of Clarity and JIRA usage across various areas and positions within the execution areas. This information allows proper recommendations and improvements to be made for the systems.

2.3 Project and Task Management in FI IT

Each execution area uses Clarity and JIRA for project management and task management, respectively. The extent of Clarity and JIRA usage differs depending on the role of an individual. An execution manager would use Clarity weekly to approve timesheets, evaluate budgets, and review project reports. However, an execution manager would rarely use JIRA since he/she have less interaction with lower level management like tasks. A program or project manager would use Clarity often to update project status,

report risks and issues, and approve timesheets. Lastly, a team member would use Clarity rarely but use JIRA daily to track their tasks across single or multiple projects.

2.3.1 CA Clarity v13

Clarity is a project and portfolio management system developed by CA Technologies that BNP Paribas uses to efficiently manage its projects, budgets, and resources.

Specifically, BNP Paribas aims to achieve the following throughout the use of Clarity:

- Align toolset and data with program structure and teams to assess cost more accurately and ensure that return on investment can be determined
- Construct the data structure to facilitate the automated extraction of data for reporting
- Create transparency around budgets to allow decision makers to allocate resources to requirements as dynamically as possible

The data that associated with Clarity include portfolios, programs, projects, tasks, budgets, actuals, estimates, milestones, and activity recording.

2.3.2 JIRA v4.4.5

Another software tool FI IT uses is JIRA which is a task management system used for tracking time, assigning and tracking workflow, as well as allowing collaboration on code integration. Each team uses JIRA to their own customization to assist with organizing work and completing projects. Since JIRA is specifically used for visibility over tasks and lower level management, it is usually team members and project managers who have the most interaction with JIRA. Execution managers and program managers have less transparency to access a summary of JIRA tasks in relation to their projects. In fact, there is no known direct connection between JIRA tasks to Clarity projects. Therefore, a variety of external tools or methods are applied to visually track both tasks and projects.

Chapter 3 Methodology

The purpose of our project is to provide BNP Paribas' Fixed Income Information Technology (FI IT) department recommendations for increasing efficiencies in data reporting that aid in data driven decisions. To accomplish this we have three goals. The first goal is to produce a more efficient Clarity Project Card that better represents data required. Our second goal is to provide a solution to improve the application of the Estimate to Complete (ETC) measure. The final goal is to provide transparency of JIRA tasks and issues to management. To accomplish these goals, we will fulfill the following objectives:

- Assess the current state of Clarity and JIRA usage within FI IT
- Understand the ideal report generated for data driven decision making

These objectives were achieved through researching the systems under study, to better understand their requirements and capabilities as well as conducting interviews and surveys of FI IT employees.

3.1 Systems Review

The first step in our project was to familiarize ourselves with the project management systems. Our team was able to gain visibility access through our sponsor's accounts, where we were able to observe the user interface and organization of both Clarity and JIRA. Within these systems we were able to create sample reports allowing us to observe the information, formatting and time required within the process of reporting. In addition, our interactions with the systems also allowed us to create more specified questions for our interviews and surveys.

3.2 Interviews and Surveys

Throughout this project our team conducted a series of interviews and surveys to collect data. To begin, we interviewed employees to familiarize ourselves with the organization and their experiences with the systems under study. Due to limited computer access, we first contacted employees in person or by phone to set up interview times. Interviews were then conducted in meeting rooms or at employees' personal desks. We began by interviewing persons that were recommended to us by our sponsors, then

continued to interview people suggested by interviewees who are usually program managers or project managers within their teams. The order in which we interviewed employees and their corresponding execution areas within FI IT are as follows:

- 1- John Unite, Security, Architecture and Governance
- 2- John Gorst, Security, Architecture and Governance
- 3- Anne-Charlotte Berger, Risk & PnL
- 4- David Littler, Risk & PnL and APS
- 5- Ben Lobley, IT Controls Risk & PnL
- 6- Graham Barrett, Risk Generation Risk & PnL
- 7- Greg Franchi, IT Controls Risk & PnL
- 8- Guy Coleman-Cooke, FI Transversal Tools APS EM
- 9- Alan Cable, APS EM and FI eCommerce
- 10- Mathieu Bourget, IRG ETS Risk & PnL
- 11- Alex Shepherd, Transversal Services Risk & PnL
- 12- Bryan Sturdy, Presentation Risk & PnL

This list mainly consists of employees for Risk & PnL, because this is the main execution area of focus for our project. Throughout these interviews our team asked, but were not limited to, the following questions regarding both Clarity, and JIRA systems:

- 1- How does your role within the Fixed Income Information Technology Department work with the system?
- 2- What are some challenges or disappointments that you have with the system?
- 3- What are some features that you would like to see this system execute?

Our team produced a survey using eSurveysPro to further develop our understanding of these systems usage and gain perspective on the ideal report generated for effective data driven decision making. To ensure that our survey would gain maximum responses, it was distributed electronically by Philip Coleman. The survey addressed the following three categories:

- 1- Importance of Clarity's Project Card
- 2- The Estimate to Complete Measure
- 3- JIRA's visibility and connectivity to Clarity

Within this survey we implemented a condition that concerned the role of the employee. Throughout FI IT project management teams only certain roles use each of the systems. Specifically, team members are limited to work at the task level of a project, thus do not interact with the system Clarity or the estimate to complete measure. For this reason our team inserted the rule allowing all team members to jump directly to the third category of the survey, concerning JIRA. See Appendix A to view the survey questions in detail and Appendix B to view the sample Clarity project card in reference to the survey.

After the data was collected from the surveys, we created a secondary interviewing process. The purpose of the secondary interviews was to refine the scope of our project and address the significant aspects that were raised within the survey. Our team formed a list of employees for interviewing, to further investigate their answers that are unique, unclear, or do not comply with our hypothesis. To ensure the list of interviewees accurately represent the potential to further our project, we discussed our options with our sponsor. These interviews were conducted in meeting rooms, at employees' personal desks, or over the phone. The order in which we conducted the secondary interviews is as follows:

- 1- Julien Dinh
- 2- Caroline Chesneau
- 3- Amaury Guyot
- 4- Jeremy Clayton
- 5- Jue Wang
- 6- Julian Pemrick
- 7- Paul Smyth

These data collected from all interviews and surveys will be used to produce useful recommendations that aim to enhance the user experience with both Clarity and JIRA systems. Meeting minutes from the primary and secondary interviews can be reference in Appendix C and D respectively.

3.3 Interview Population Analysis

Throughout our data analysis we used factual and logical evidence to compare the populations of execution areas. Within each BNP Paribas' FI IT team there are four main

roles including: execution manager, program manager, project manager or team leader, and team member. Using the BNP Paribas – Fixed Income IT 2013 Organization Chart and information provided from our sponsor, the population used for the survey consisted of 647 employees in total. For this survey our team was only concerned with studying the execution areas specific to the London team. Within our survey population there are exactly 8 execution managers and areas including:

- 1- Bruno Restuccia, Chief Information Officer (CIO)
- 2- Wells Powell, APS Electronic Markets (EM)
- 3- Paul Harvey, Credit
- 4- Mark Williamson, eCommerce
- 5- Adalbert De Broglie, Front to Back
- 6- Philippe Soubrane, Foreign Exchange (FX) eTrading
- 7- Philip Coleman, Risk and Profit and Loss (PnL)
- 8- Frederic Hustache, Security, Architecture and Governance

For each of these execution areas, our team concluded that there were a total of 40 program managers. As for project managers or team leaders and team members there was no official list of employees in each execution area. Therefore, we relied on assumptions based on the average FI IT team structure to determine the breakdown of the population. Based on the average number of teams a program manager oversees we implemented a 3:1 ratio to determine the number of project managers or team leaders. Considering there are 40 program managers, we calculated there to be a total of 120 project managers or team leaders. Thus, we assumed that the remaining 479 employees consisted of the team members. It is essential to apply these ratios when analyzing the survey data in order to understand and interpret the data accurately.

Chapter 4 Findings and Discussion

After completing a series of interviews, reviewing the systems, and closing our survey, we sorted and analyzed the data collected. The data collected and our findings are organized by our areas of focus in the project. There are both qualitative and quantitative

data regarding the Clarity Project Card, Estimate to Complete (ETC) measure, and the connectivity of JIRA and Clarity.

4.1 Clarity Project Card

For the Clarity Project Card analysis our team used primary interviews, surveys and secondary interviews.

4.1.1 Primary Interviews

As soon as the project began, a series of primary interviews were conducted using a list of recommended interviewees given by the sponsors. Through these interviews, we gained insight on the interviewees' user experience and usage on Clarity. A main concern regarding Clarity is its implementation across all execution areas of FI IT. The benefit of Clarity is that it is an all-in-one system, where a user can manage budgets, report timesheets, and track projects. However, this product lacks the ability to customize usage for each execution area.

The interviews revealed that Clarity was implemented about 2 years ago in place of an old system called Project Zoo. When using Project Zoo, budgets were more defined and easily reported with existing queries that performed the necessary calculations. In contrast, Clarity data needs to be exported and then queried in Business Objects to analyze the budgets. This is clearly not efficient to users. In addition to the inefficient process, Clarity is known to be slow and time consuming for users. Clarity is used either weekly or monthly to submit and approve timesheets, but it is very difficult to track time and update timesheets considering that the system runs slowly. Although, interviewees believe that Clarity is a beneficial tool that can be powerful when used correctly.

At the current state, Clarity has many known issues and areas that can be improved. Unfortunately, the project duration does not permit our team to examine each issue in depth. After speaking to interviewees and our sponsors, it was decided that the area of focus within Clarity to delve into is the Project Card. The Project Card is a status report that can be viewed anytime upon user request, but it is formally used monthly for reporting to upper management. A blank Project Card is shown in Figure 1 for referencing. When observing the Project Card, we learn that it is in a general format that contains plenty of information used by all execution areas and teams but it does not allow

customization. Despite that Clarity can generate this document, some project managers choose to create their own Project Card either manually or automated through an external tool.

| Project Card | Functional Layer | Sponsor | Project Manager | Total Budget / Forecast over years (cash ml) | Extra Budget required in 2013 ? | Investment Driver | Capitalisation |
|---------------------------|------------------|---------|-----------------|--|---------------------------------|---------------------|----------------|
| IRG RPNI Exotics Envelope | Risk P&L | NA | BARRETT, Graham | 0.00 ml | No | Industry mandated / | Cap3 |
| Clarity Project | | | | | | | |
| Project Description | | | | Project Approval(s) | | | |
| Context | | | | Date | | | |
| Benefit | | | | Decision | | | |
| Scope | | | | | | | |
| Project Status | | | | Key Milestones | | | |
| Overall Status | | | | Start 01/01/2013 End 31/12/2014 | | | |
| Executive Summary | | | | 2012 2014 | | | |
| Achievements | | | | Key Milestones (top 10) | | | |
| Upcoming Activities | | | | Baseline Revised Comment | | | |
| Back to Green Flag | | | | 1-Project Start | | | |
| Risk & Dependencies | | | | 2-Project End | | | |

Figure 1 Example Clarity Project Card Page 1 of 4

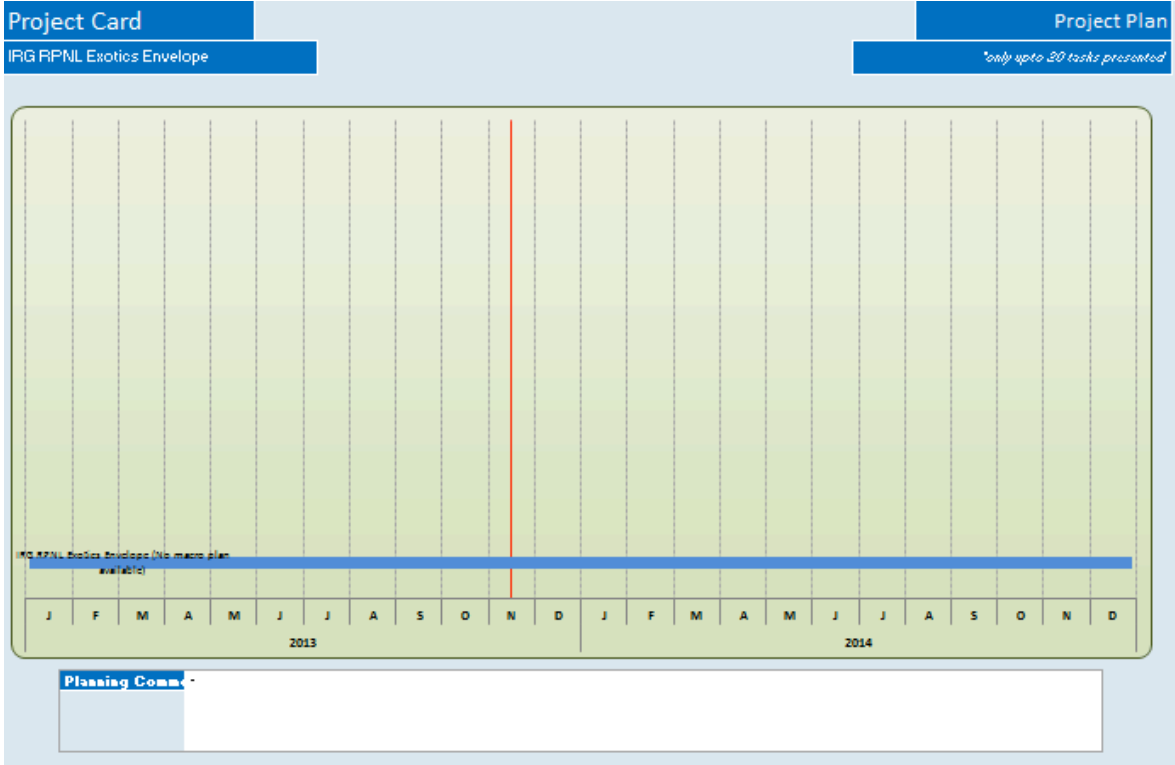


Figure 2 Example Clarity Project Card Page 2 of 2

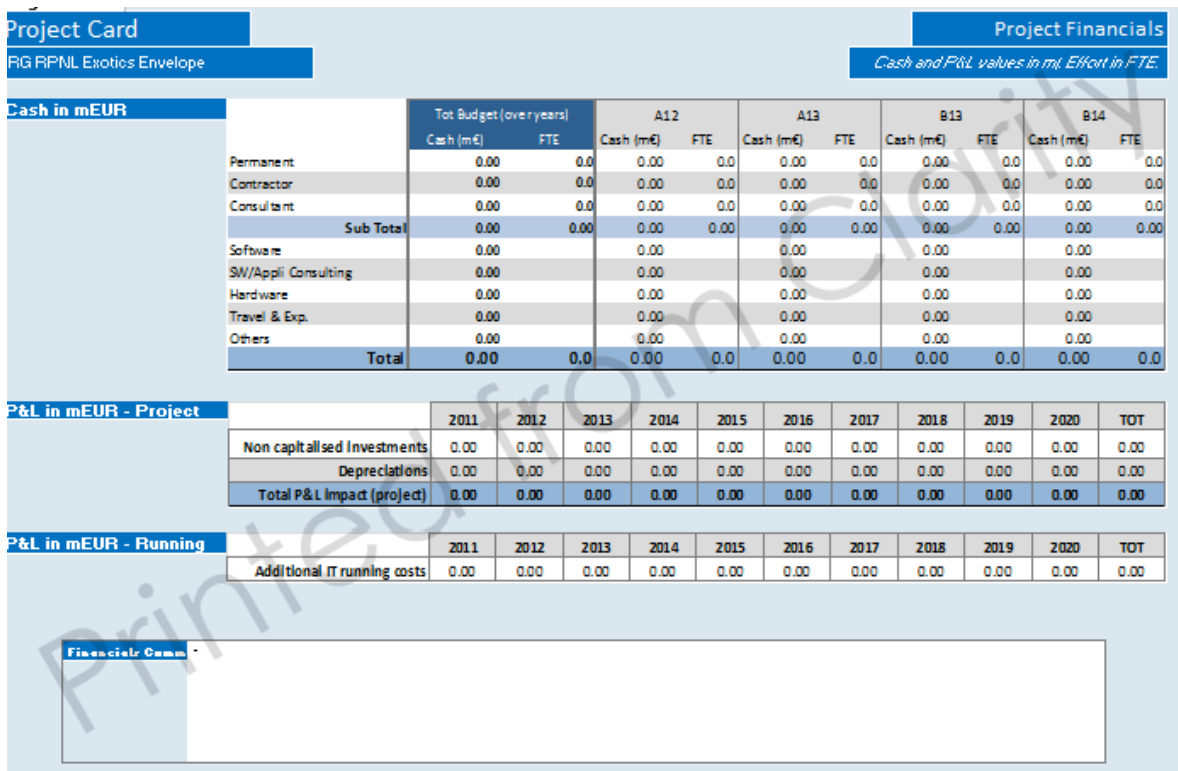


Figure 3 Example Clarity Project Card Page 3 of 4

| Project Card | | Project Governance | |
|--------------------------|------------------|--------------------|--|
| RG RPML Exotics Envelope | | | |
| Project Manager | BARRETT, Graham | | |
| Sponsor | NA | | |
| Stakeholders | | | |
| | | | |
| SteerCo Members | SteerCo Planning | Notes | |
| | | | |
| | | | |
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Figure 4 Example Clarity Project Card Page 4 of 4

It is noted by our sponsors that some users would use a screenshot of the dashboard on Clarity in place of the Project Card. Each project on Clarity is summarized in a dashboard which shows the basic the project description, the project status, the budget in man days, the next 5 milestones, major achievements and upcoming activities, and risks and issues by criticality and priority. The dashboard represents the project visually and is very similar to the Clarity Project Card but with more or less details in various aspects. The benefit of the dashboard is that it is all shown on one screen with the information summarized concisely. In contrast, the Clarity Project Card, when filled completely can be rather cluttered with abundant information and text.

Another issue with the Project Card is that the data may be irrelevant or inaccurate. This is due to poor data quality or inconsistent reporting among managers. To use Clarity effectively, data must be inputted correctly at the lowest level in order for all data and reports outputted to be accurate and useful. Currently, the Project Card shows Project Financials including information in million Euros. However, interviewees have expressed that these numbers are not calculated correctly due to poor data entry and are

not always used for referencing. Since the purpose of the Project Card is to review the project status and make further decisions accordingly, the importance of data integrity is emphasized in order to use the data effectively.

From the information gathered in the primary interviews, our team decided that we need to examine which components of the Project Card add value to the report and which components provide inaccurate or repetitive information and can be removed. The information collected in interviews is qualitative data that helped our team understand the ideal Project Card. The data allowed our team to make a draft of what an improved Project Card will resemble, as shown in Figure X. Now using this information, a survey was formulated to gather quantitative data to create a recommended Project Card.

| | | | | | | | | | | |
|---|-------------------|--------------------------|--|------------------------|------------------------------|--|--------------------------------|--------------------------|------------------------------|------|
| PROJECT CARD | | Functional Layer | Sponsor | Project Manager | Total Budget/Forecast | Extra Budget Required in 2013? | No | Instrument Driver | Capitalisation | |
| IRG RPNL Example Project | | Risk P&L | Dulout, Laurent | Purdie, David | Over Years (Cash m€) | 0.00 m€ | Notable Project | Yes | Business Growth/Preservation | Cap3 |
| Project Description | Description: | | | Benefits: | | | Scope: | | | |
| Project Status | | | | | | | | | | |
| Overall | % Complete | Global | Risk | Cost | Timing | Total | | | | |
| Status | 33% | | | | | | | | | |
| Executive Summary | | | | | | | | | | |
| | | | | | | | | | | |
| Achievements | | | | | | | | | | |
| | | | | | | | | | | |
| Upcoming Activities | | | | | | | | | | |
| | | | | | | | | | | |
| Back to Green Plan | | | | | | | | | | |
| | | | | | | | | | | |
| Risk & Dependencies | | | | | | | | | | |
| | | | | | | | | | | |
| Project Budget | | | | | | | | | | |
| Budget | | Total Effort | | | | Budget Comments | | | | |
| Initial Budget | 7.47 | | | | | | | | | |
| Revised Budget | n/a | | | | | | | | | |
| Actuals | 2.68 | | | | | | | | | |
| ETC | 4.79 | | | | | | | | | |
| PROJECT CARD | | IRG RPNL Example Project | | | Project Plan | | *only up to 20 tasks presented | | | |
| | | | | | | | | | | |
| Risks/Issues | | | | | | Planning Comments: | | | | |
| Description | | | Mitigation/Resolution | | | After the re-planning, we now have much better understanding of the remaining work. The issues with the risk feed do mean that we need to use a week of contingency. | | | | |
| GPU solution may be difficult to manage. | | | Extended period of study to determine operational risks versus potential compute savings | | | | | | | |
| MADB-MADT migration on hold due to db loading | | | Move MAD onto Kew. | | | | | | | |
| Risk Comments: | | | | | | Next Steps: | | | | |
| | | | | | | <ul style="list-style-type: none"> Action 1 Action 2 Action 3 | | | | |

Figure 5 Proposed Project Card Template Draft

4.1.2 Survey Results

A portion of the survey focused on gathering feedback on Clarity and the Project Card. The survey begins by identifying the survey respondents' execution area and role. This allows the data to be sorted and filtered by role to understand the different perspectives as each role would use Clarity differently. Here in Figure 6 and 7, the pie chart shows the percentages of survey respondents based on execution area and role.

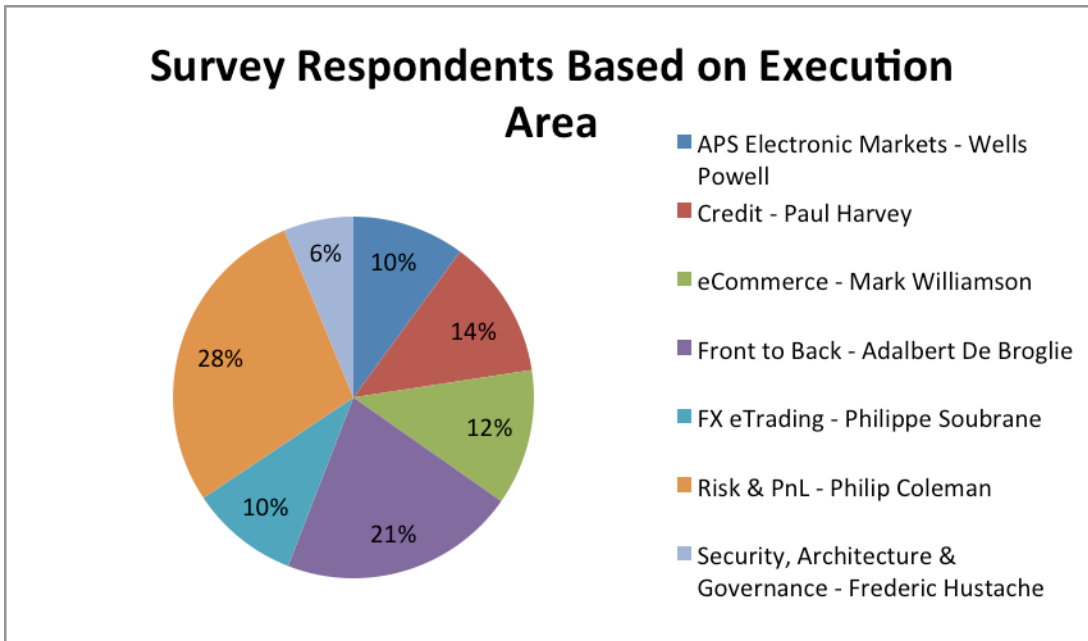


Figure 6 Distribution of Survey Respondents and their Execution Area

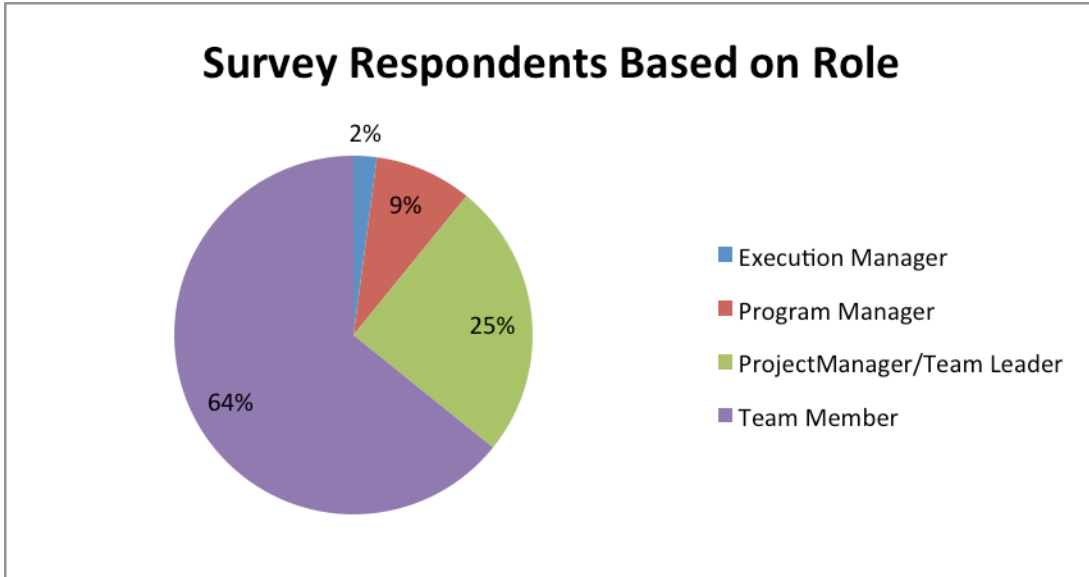


Figure 7 Distribution of Survey Respondents and their Role

Another purpose of identifying a survey respondent’s role is to follow a condition set in the survey. If a respondent is an executive manager, program manager, or project manager/team leader, then he/she would continue on in the survey to the next question. However, if a respondent is a team member, then he/she would skip the set of questions regarding the Clarity Project Card. As noted previously, a team member does not normally use Clarity in their work, so they would not have the user experience to help them answer the Clarity questions accordingly. The responses from all other survey respondents were then presented in bar graphs to understand the distribution of responses.

4.1.2.1 Project Description Components

The first section to be observed is the Project Description. This section of the Project Card provides the basic information regarding a project including the following components: Context Text Box, Benefits Text Box, and Scope Text Box. The responses for this section are displayed in Figure 8 below and the section from the Project Card is shown in Figure 9.

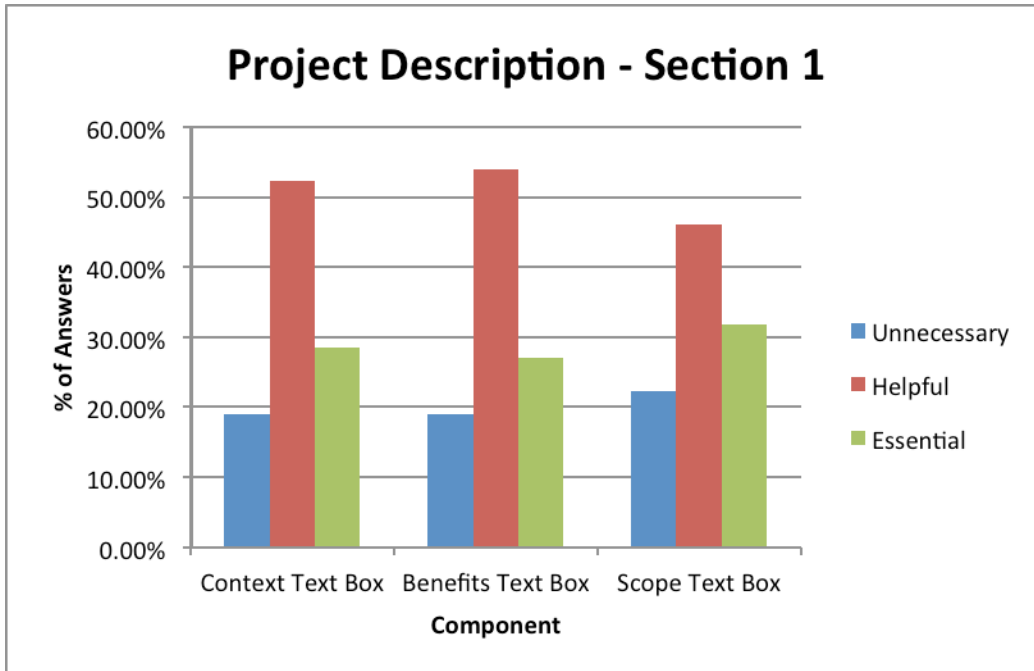


Figure 8 Ratings of Project Description Components

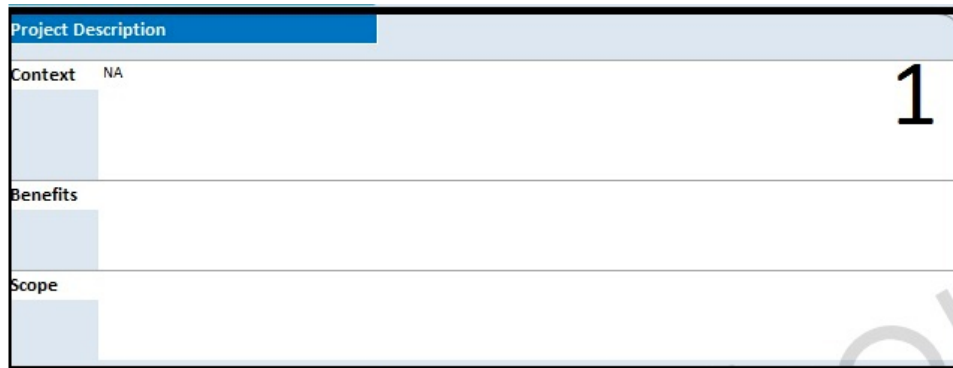


Figure 9 The Project Description Section of the Current Project Card

As the bar graph shows, all three components of the Project Description section contains mostly of the “Helpful” and “Essential” ratings. The “Unnecessary” responses make up less than 25% of the total responses for each component. This concludes that this section is important to users when referring to the Project Card. Another reason that this section is needed is because it provides useful information for the user to understand the background of the project.

4.1.2.2 Project Approvals Component

The next section examined is the Project Approvals. This section of the Project Card contains the description, dates, and decisions made on any past approvals concerning a project. The responses for this section are shown in a bar graph in Figure 10 and the section from the Project Card is shown in Figure 11.

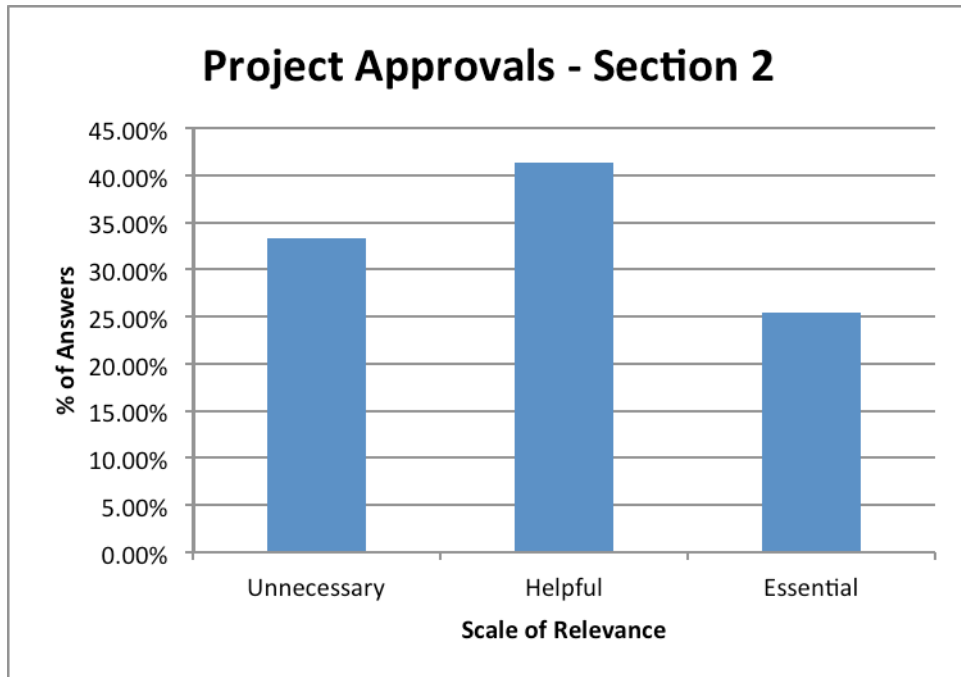


Figure 10 Ratings of Project Approvals

| Project Approval(s) | |
|---------------------|---------------|
| 2 | Date Decision |
| | |
| | |
| | |
| | |
| | |
| | |

Figure 11 The Project Approvals Section of the Current Project Card

This section does not contain individual components so the ratings represent the user experience for the entire section. The graph shows that 33.3% responses are Unnecessary, 41.2% responses are Helpful, and 25.4% responses are Essential. The responses are more evenly distributed across the three ratings. However, when comparing the “Unnecessary” responses and “Essential” responses, there are about 8% more responses that find this section unnecessary rather than essential. A conclusion for this section was not made immediately. In a further part of the report, an in-depth analysis is conducted to evaluate sections like the Project Approvals that received mixed ratings.

4.1.2.3 Project Status Components

The Project Status section of the Project Card is reviewed next. This section contains the following components: Overall Status Table, Executive Summary Text Box, Achievements Text Box, Upcoming Activities Text Box, Back to Green Plan Text Box, and Risk and Dependencies Text Box. The responses for the Project Status section are shown in Figure 12 and the section from the Project Card is shown in Figure 13.

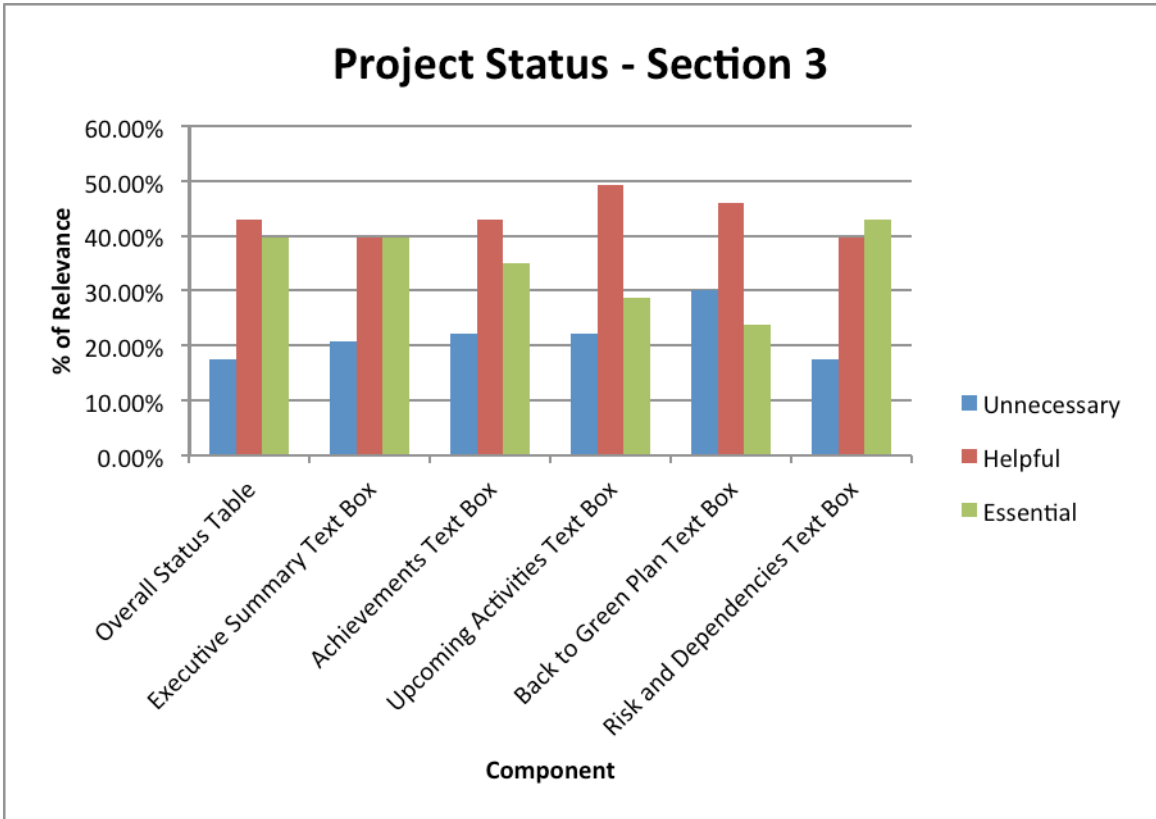


Figure 12 Ratings of Project Status Components

| Project Status | | | | | | |
|---------------------|------------|--------|------|------|--------|-------|
| | % Complete | Global | Risk | Cost | Timing | Trend |
| Overall Status | 0% | | | | | |
| Executive Summary | - | | | | | |
| Achievements | - | | | | | |
| Upcoming Activities | - | | | | | |
| Back to Green Plan | - | | | | | |
| Risk & Dependencies | - | | | | | |

Figure 13 The Project Status Section of the Current Project Card

From the bar graph above, most of the components have relatively high percentages of responses for “Helpful” and “Essential” ratings. All of the “Unnecessary” responses

make up less than 25% for each component besides the Back to Green Plan Text Box with about 30% of “Unnecessary” responses. Since this section shows crucial information on project updates, it is not a surprise that users find this section significant. However, the Back to Green Plan Text Box was later evaluated again to understand its value to the Project Card.

4.1.2.4 Key Milestones Component

The Key Milestones section of the Project card does not consist of individual components. Instead it is visually similar to a timeline or plan to depict highlights of the project with respect to each other. The responses to this section are shown in Figure 14 and the section from the Project Card is shown in Figure 15.

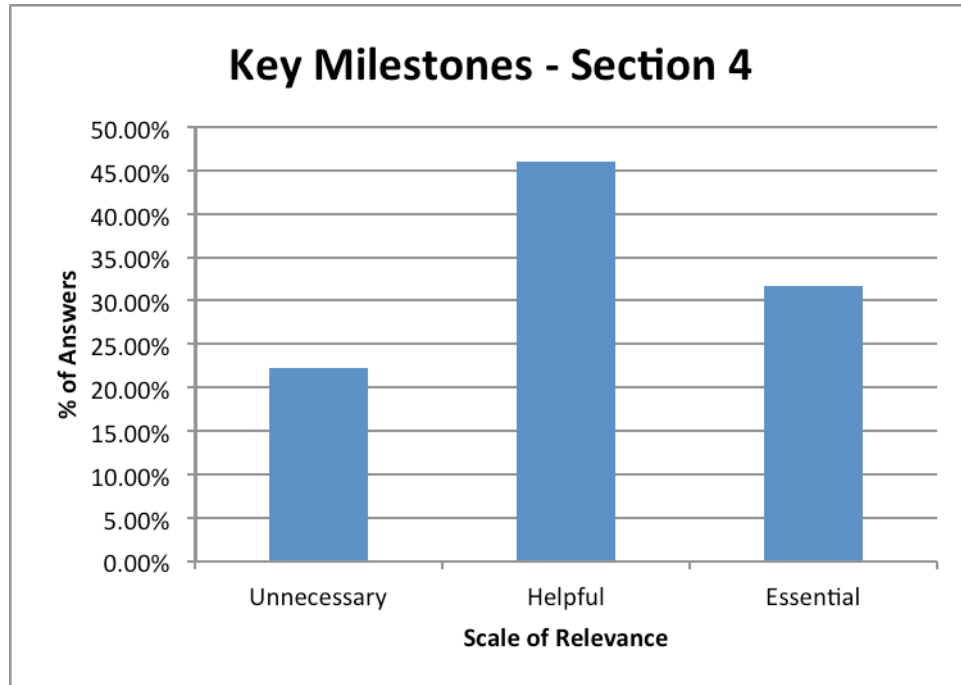


Figure 14 Ratings of Key Milestones Plan



Figure 15 The Key Milestones Plan Section of the Current Project Card

In this bar graph, less than 25% of the responses are “Unnecessary” and the majority of the responses are “Helpful” or “Essential.” This section of the Project Card is useful for referencing when reviewing new updates for a project.

4.1.2.5 Key Milestones Top 10 List Components

The Key Milestones Top 10 List is a section that highlights the major points of a project. This section includes components regarding milestones like the Baseline Text Box, Revised Text Box, and Comments Text Box. The responses for this section are shown in Figure 16 and the section from the Project Card is shown in Figure 17.

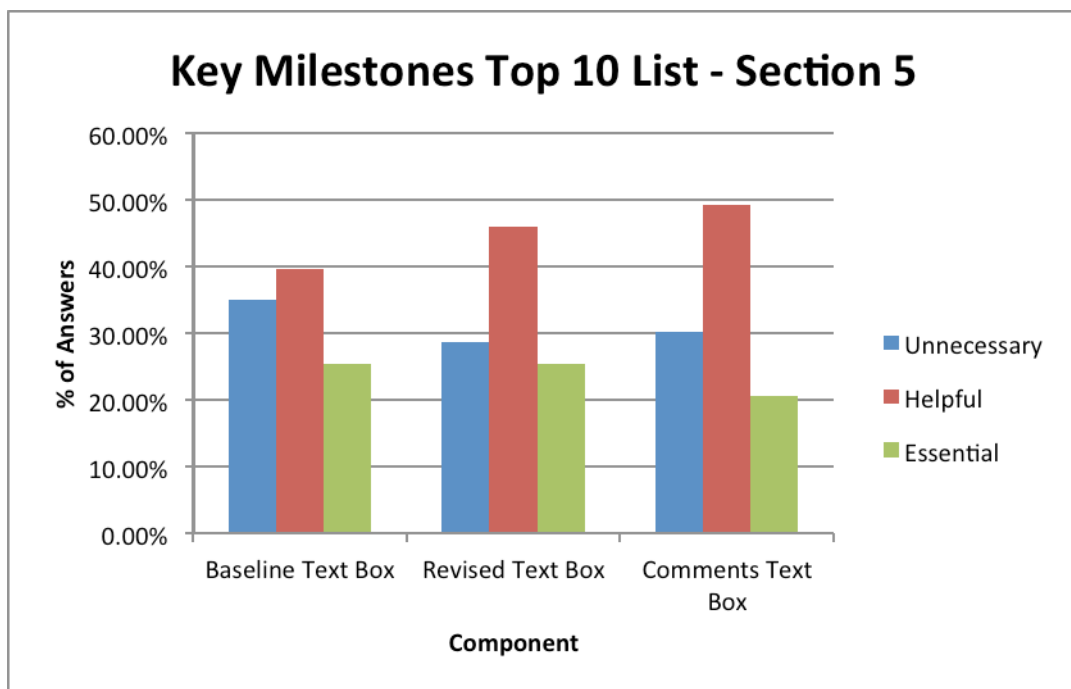


Figure 16 Ratings of Top 10 Key Milestones List

| Key Milestones (top 10) | Baseline | Revised | Comments |
|-------------------------|----------|------------|----------|
| 1-Project Start | - | 01/01/2013 | |
| 2-Project End | - | 31/12/2014 | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

Figure 17 The Top 10 Key Milestones List of the Current Project Card

The graph shows that majority of the responses are “Helpful” but it is important to recognize that the “Unnecessary” responses make up more than 25% of the responses for each component, whereas the “Essential” responses make up less than 25% of the responses for each component. This shows that there is value with this section of the Project Card. However, it can imply that this section may need improvements to make it practical to the user.

4.1.2.6 Project Plan Components

This section is the Project Plan and it consists of the components the Gantt chart and the Planning Comments Text Box. This part of the Project Card shows the overall timeline of a project including milestones. The responses for this section are shown in Figure 18 and the section from the Project Card is shown in Figure 19.

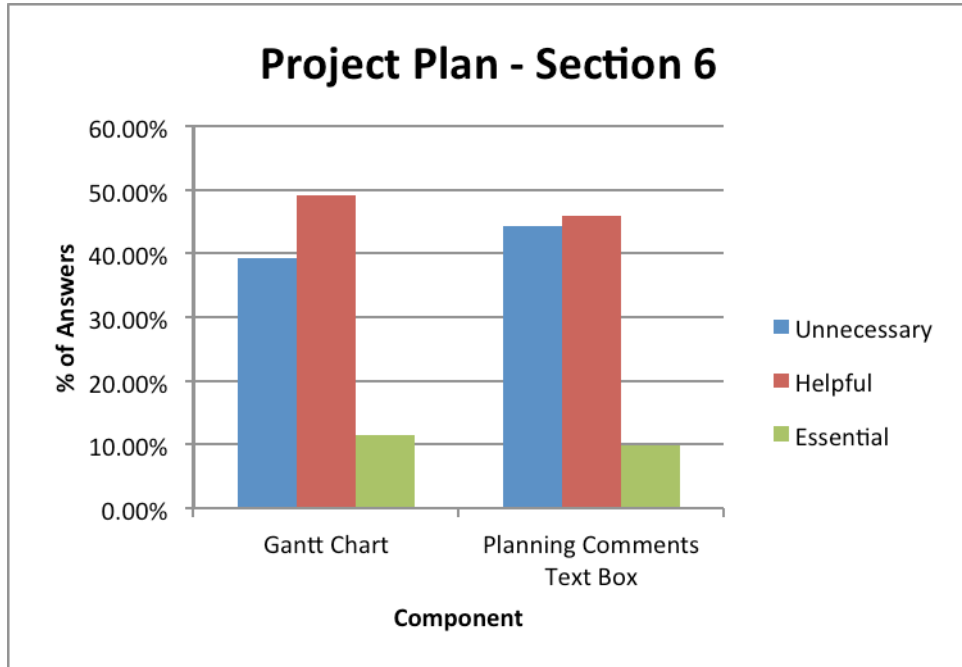


Figure 18 Ratings of Project Plan Components

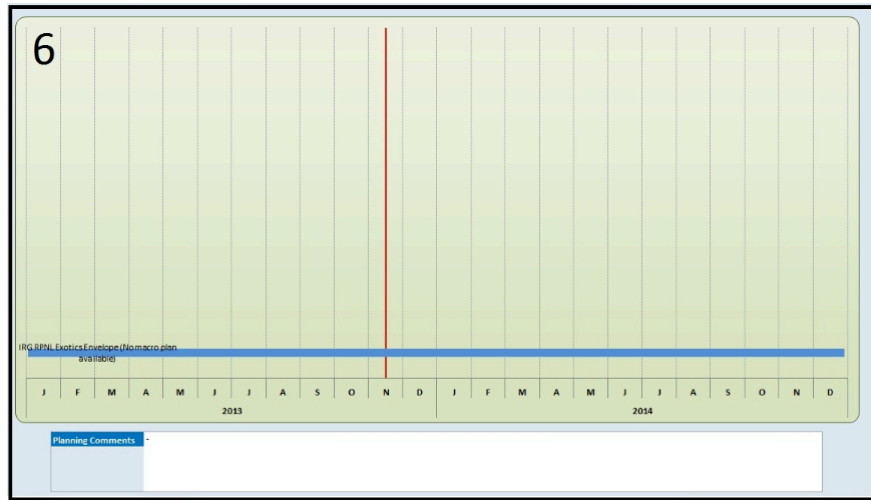


Figure 19 The Project Plan Section of the Current Project Card

The majority of the responses which are about 40-45% are “Unnecessary” for both components of the Project Plan section. In addition, only about 12% of respondents find the Gantt chart to be “Essential.” Logically, this is a surprising finding from the survey since a timeline is typically a useful visual for referencing. This finding was further investigated to fully understand the responses and its value for the Project Card.

4.1.2.7 Project Financials Components

The Project Financials section of the Project Card contains quantitative information regarding a project’s budget. In this section, there are four components: Cash in m€, Project Costs, Running Costs, and Financial Comments Text Box. The responses for the components in this section are shown in Figure 20 and the section from the Project Card is shown in Figure 21.

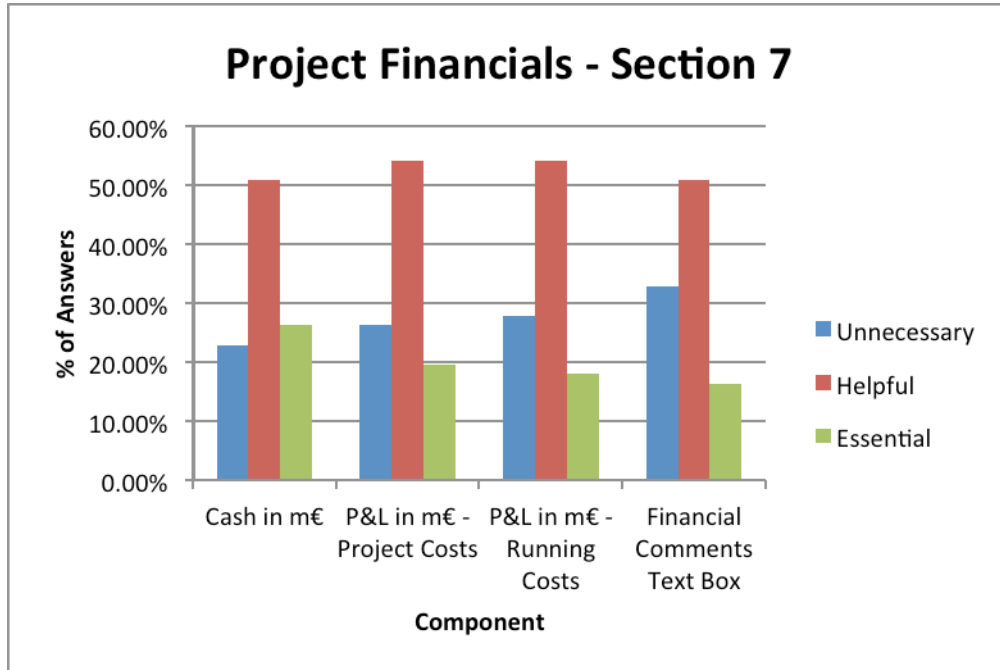


Figure 20 Ratings of Project Financials Components

| 7 | Tot Budget (over years) | | A12 | | A13 | | B13 | | B14 | |
|---------------------|-------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | Cash (m€) | FTE | Cash (m€) | FTE | Cash (m€) | FTE | Cash (m€) | FTE | Cash (m€) | FTE |
| Permanent | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 |
| Contractor | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 |
| Consultant | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 |
| Sub Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Software | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| SW/Appli Consulting | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hardware | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Travel & Exp. | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Others | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 | 0.00 | 0.0 |

| P&L in mEUR - Project Costs | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | TOT |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Non capitalised investments | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Depreciations | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total P&L impact (project) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| P&L in mEUR - Running Costs | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | TOT |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Additional IT running costs | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Financials Comments

Figure 21 The Project Financials Section of the Current Project Card

The graph above shows that each component had at least 50% of the responses as “Helpful” and mixed responses for “Unnecessary” and “Essential.” It is difficult to say from this graph whether the section is crucial or if certain component(s) should be reevaluated. This section is later examined to understand its purpose to users.

4.1.2.8 Project Governance Components

The Project Governance section of the Project Card consists of many components with qualitative information. This section includes the Project Manager Text Box, Sponsor Text Box, Stakeholders Text Box, Steering Committee (SteerCo) Members Text Box, SteerCo Planning Text Box, and Notes Text Box. The responses for this section are displayed in Figure 22 and the section from the Project Card is shown in Figure 23.

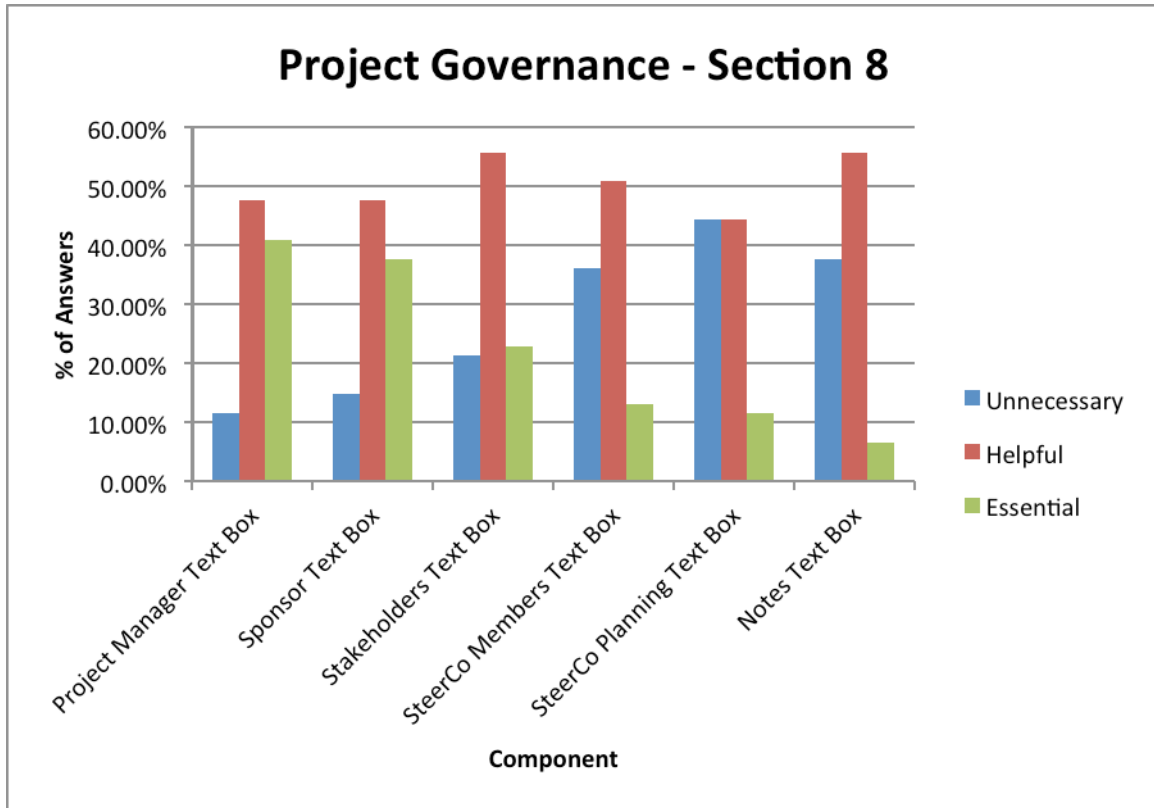


Figure 22 Ratings of Project Governance Components

8

| | | | |
|-----------------|-----------------|------------------|-------|
| Project Manager | BARRETT, Graham | | |
| Sponsor | NA | | |
| Stakeholders | | | |
| | | | |
| SteerCo Members | | SteerCo Planning | Notes |
| | | | |
| | | | |
| | | | |

Figure 23 The Project Governance Section of the Current Project Card

The graph shows that the Project Manager Text Box, Sponsor Text Box, and Stakeholders Text Box all are major “Helpful” or “Essential.” This is expected as this type of information is basic project description regarding its main contacts. However, the Project Manager and Sponsor of a project are already shown at the header of a Project Card. Therefore, this is repetitive information despite its usefulness. The Stakeholders Text Box may be useful in understanding other individuals involved. Although, it is also additional information that is not crucial since the Project Manager and Sponsor are responsible of contacting Stakeholders about a project normally. The SteerCo Members Text Box, SteerCo Planning Text Box, and Notes Text Box all received majority of the responses to be “Unnecessary” or “Helpful.” This implies that while this constant information may be beneficial, it may not be required in a monthly document.

4.1.2.9 Evaluating Existing and Suggested Additional Components

All sections and components of the Project Card were evaluated through individual bar graphs for each section. This visually represented the responses very well to compare the different ratings against each other. However, the graphs are not the only indicators to evaluate a component’s usefulness in the Project Card. In order to fully analyze this data, our team assigned a weighted scale to the ratings where Unnecessary had a weight of -1, Helpful had a weight of 1, and Essential had a weight of 3. Using the number of responses per rating, a numeric value is calculated for each component. By calculating values for the components, more quantitative analysis can be performed. A

box and whisker chart was created for the components using the values. The chart is shown in Figure 24.

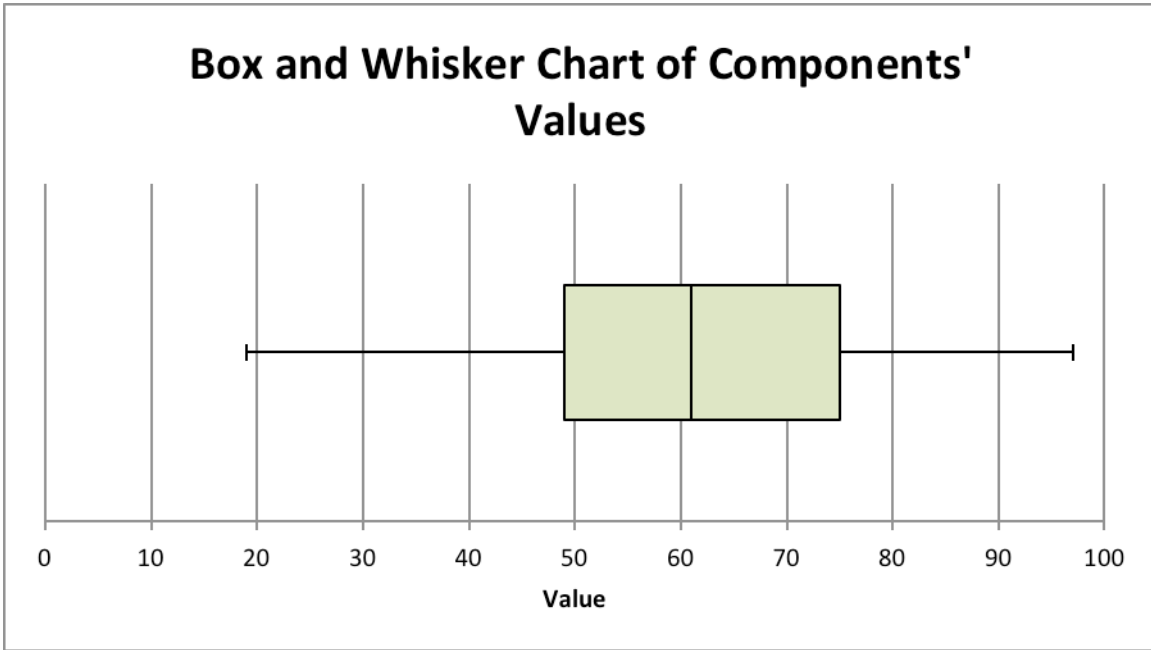


Figure 24 Distribution of Components in a Box and Whisker Chart

From this chart, our team determined that components with values below the first quartile of the chart can be removed from the Project Card, components with values greater than the first quartile but less than the median require discussion, and components with values greater than the median will not be removed. If information is shown more than once in the Project Card, then it will be removed. A Project Card is meant to be a concise document. Therefore, it is unnecessary to have repetitive information. The logic described leads to the following components sorted shown in the Table 1 below.

Table 1 Components and Conditions for Evaluating their Values

| Components and Conditions |
|--|
| Components with Values Less Than Q1 |
| <ul style="list-style-type: none"> • Gantt chart (Project Plan) • Planning Comments Text Box (Project Plan) • Financial Comments Text Box (Project Financials) |

| |
|---|
| <ul style="list-style-type: none"> • SteerCo Members Text Box (Project Governance) • SteerCo Planning Text Box (Project Governance) • Notes Text Box (Project Governance) |
| Components with Values Greater Than Q1 but Less Than the Median |
| <ul style="list-style-type: none"> • Project Approvals description, date, and decision (Project Approvals) • Back to Green Plan Text Box (Project Status) • P&L in m€ - Project Costs (Project Financials) • P&L in m€ - Running Costs (Project Financials) • Baseline Text Box (Key Milestones Top 10 List) • Revised Text Box (Key Milestones Top 10 List) • Comments Text Box (Key Milestones Top 10 List) |
| Components with Values Greater than the Median |
| <ul style="list-style-type: none"> • Project Description section • Overall Status Table (Project Status) • Executive Summary Text Box (Project Status) • Achievements Text Box (Project Status) • Upcoming Activities Text Box (Project Status) • Risk and Dependencies Text Box (Project Status) • Key Milestones section • Cash in m€ (Project Financials) • Stakeholders Text Box (Project Governance) |
| Repetitive Components |
| <ul style="list-style-type: none"> • Project Manager Text Box (Project Governance) • Sponsor Text Box (Project Governance) |

The weighed scale and calculated values provides more evidence for the conclusions deducted from bar graphs of the components. Prior to deciding to remove or keep any component, a set of secondary interviews were conducted to confirm our reasoning. The combination of primary interviews, survey, and secondary interviews allowed our team to analyse the components comprehensively before designing an improved Project Card.

In addition to examining the existing components in the Project Card, the survey questioned respondents if they would like to see three components our team suggested.

The three components are Reasoning and Objectives for the Project, Budgets Represented in Man Days (MD), and Budgets including ETC. The results for this question are shown in percentages of responses in Figure 25.

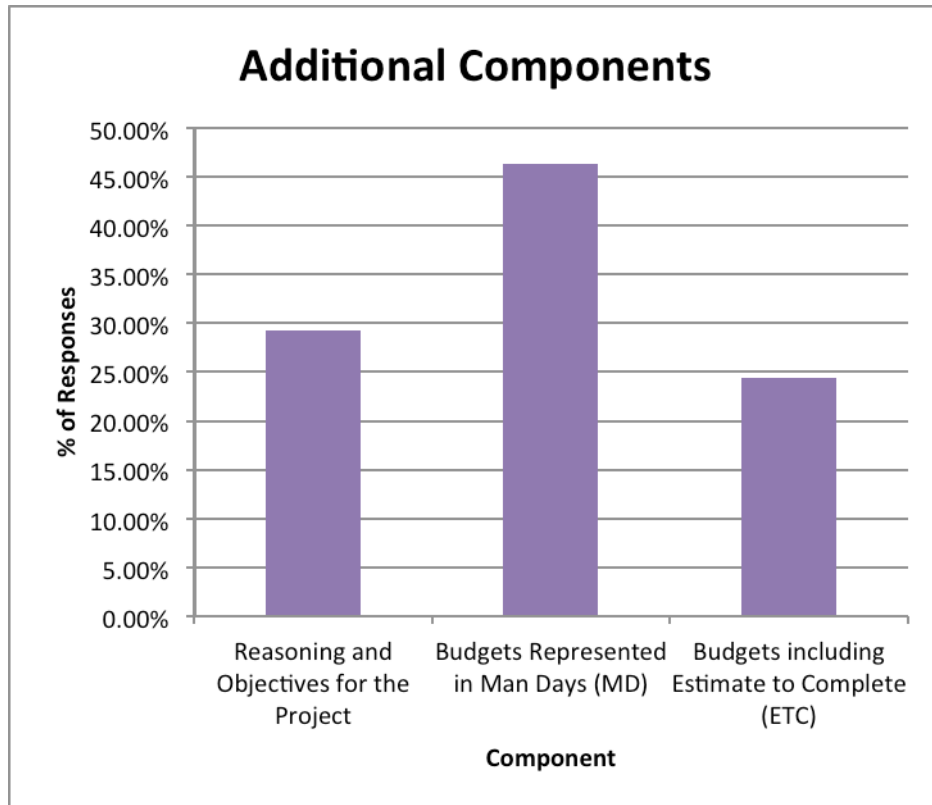


Figure 25 Distribution of Responses for Additional Components

Survey respondents were also given the opportunity to suggest other additional components. A list of all suggestions is shown in Appendix __. Our team reviewed the list of suggestions with our sponsor to understand the purpose of recommended components or general suggestions. Some of the suggestions proposed removing the Governance page as it contains limited value and removing the Financials page because it is not implemented or calculated correctly. Other suggestions recommended displaying risks and issues in more detail and including ETC for forecasting. A common general suggestion to Clarity concerns the importance of data quality. It is crucial for data to be inputted correctly for Project Card to generate accurate information. The ideas extracted

from the suggestions were helpful and our team further researched these topics through secondary interviews.

4.1.3 Secondary Interviews

The survey results presented data to improve the Project Card and this data is confirmed through a series of secondary interviews. Through these interviews, our team gained more feedback regarding the Gantt chart and the Project Financials of the Project Card. The Gantt chart was one of the components to be removed due to a low calculated value from the weighted scale. This was a surprising fact since many interviewees and our sponsor have expressed that the Gantt chart is a beneficial visual to have in the Project Card. With further investigation, our team learned that while the Gantt chart is good for referencing, it may be better represented in the task level of the project to assist in forecasting the budget. It would be advantageous if the Gantt chart can be used to help allocate budget.

The secondary interviews also provided more information as to why the Project Financials are not helpful. The numbers in this section are not accurate and cannot help on a daily basis since it is calculated in million Euros. The Project Financials will be better represented if it is shown in terms of ETC instead. With this option, there needs to be better education of ETC usage for users to understand the implication of this measure and how it can be applied in forecasting. The feedback gathered through the secondary interviews allowed our team to further discuss and conclude our analysis regarding the Project Card. Using our analysis, our team was able to move forward to developing an improved Project Card and provide recommendations of its usage.

4.2 Estimate to Complete (ETC)

For the estimate to complete analysis our team used primary interviews, surveys and secondary interviews.

4.2.1 Primary Interviews

From reviewing the overall status for rates trading report in the Rates Risk and PnL Programme Board meeting minutes with Phil Coleman, the estimate to complete (ETC) measure's inaccurate use was brought to our attention. The standard ETC value

represents the budget, in the form of time or money, which is required to finish a task, project, program, etc. Specifically for this project we observed the ETC measure at the project level. From the interview we learned that the general rule for calculating ETC for FI IT is the difference of the actuals from the budget. However regarding the overall status report information in Table 2 the reported and calculated measures for ETC are unequal.

Table 2 Example Project Information with ETC

| Project/Team | Budget | Actuals | Reported ETC | Calculated ETC | Difference |
|------------------------|--------|---------|--------------|----------------|------------|
| Reflex Blotter Merge | 4.67 | 2.1 | 2.6 | 2.57 | -0.03 |
| PnL Explain | 3.9 | 0.73 | 3.12 | 3.17 | 0.05 |
| MESA | 7.47 | 2.68 | 4.79 | 4.79 | 0.00 |
| Kew System Integration | 3 | 0.67 | 2.33 | 2.33 | 0.00 |
| MAD Trading Platform | 0.5 | 0.2 | 0.3 | 0.3 | 0.00 |
| MAD GPU project | 4 | 3.32 | 0.68 | 0.68 | 0.00 |
| PAGE OTC Phase 1 | 3.65 | 2.35 | 1.3 | 1.3 | 0.00 |
| Rapide | 1.2 | 0.75 | 0.46 | 0.45 | -0.01 |
| RAD Platform | 2 | 0.89 | 1.11 | 1.11 | 0.00 |

*These numbers are represented in units of Man Years

From this data sample there are three instances where the ETC values are not equal, suggesting that there are different ways to calculate these values. The majority of ETC values represented in FI IT reports are extracted from the various Clarity projects, while others are gained from personal communication with relevant employees. Each execution, program or project manager that is required to create the Clarity for a project is responsible for recording the corresponding ETC value. Throughout interviewing employees our team investigated examples of how the ETC is concluded within projects. In one instance, in our interview with Graham Barrett we learned that the ETC measure is difficult to calculate for his work involving coding. While two lines of code have the same word count, the time spent to write them can vary widely based on the difficulty level and employee experience assigned to each. In additional interviews, employees either reported that they did not know what the ETC measure was or that it is unnecessary

for their work. To further understand if employees are using ETC and how it can apply to their area of work our team compiled a set of survey questions.

As noted previously, see Appendix C for the primary interview meeting minutes and Appendix C for the overall project report.

4.2.2 Survey Results

There were six questions within our survey that observed the use of the ETC measure, including:

- 1- Do you use the ETC indicator?
- 2- How are you currently calculating and using ETC?
- 3- Do you believe that the ETC is a good measure for your work?
- 4- Do you think that ETC could be used more accurately?
- 5- Please explain why you think ETC can or cannot be used more accurately.
- 6- Please explain why you do not use ETC? (For respondents who answered no to question 1)

4.2.2.1 ETC usage throughout FIIT

Of the 102 execution, program, and project managers or team leaders that responded to the survey only 61 responded to this set of questions. While we cannot infer why the 40 percent of employees did not continue the survey, it is still apparent that the majority does not use the ETC measure. Of the 61 respondents, only ten percent of employees responded that they use the ETC measure. See Figure 26 for more details.

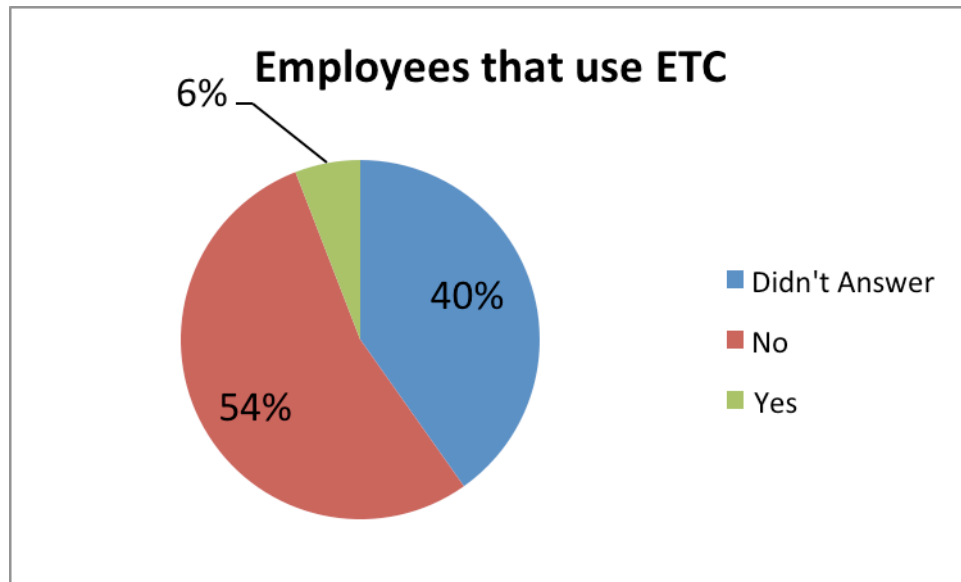


Figure 26 Distribution of ETC Usage

4.2.2.2 Current calculation and application of ETC

While it is apparent that the majority of respondents recorded that they do not use the ETC indicator, questions two through five concerns the 10 percent of employees that responded that they do. Of the 10 percent employees that responded, some answers were still irrelevant to our study.

Regarding the second question, how employees are calculating and using the ETC indicator, we received four responses that were important, though not all relevant. The first response, both important and relevant suggested that ETC is a “value judgment of the outstanding work as a percentage of the original work”. While this employee understands the proper use of ETC, they also noted that “On testing activities with many test cases this is fairly exact. For Analysis and Dev it is hard to be 100 percent objective/precise”. This response demonstrates that the ETC indicator has a universal concept, but there does not have an exact formula for calculation and may not be applicable to all situations. The other three responses to this question were found important though irrelevant, including:

- 1- Is this the MD efforts we put in for the forecast?
- 2- Manually on reporting slides
- 3- Based on estimations

These three responses illustrate the deficiency of knowledge concerning this estimation throughout FI IT. Firstly the ETC measure is the MD efforts inputted into the forecast section of Clarity, but it is not limited to this one application. In addition the ETC value may be reported manually on slides, though there has to be some logic or calculation that produces the value. Lastly the ETC indicator is an estimation, which would produce a much less factual value if it is based of additional estimations. From these responses it is evident that there is no universal understanding regarding this estimation throughout the company.

4.2.2.3 ETC quality and accuracy of implementation

For the following analysis only seven employees responded, preventing our team from making any accurate conclusions. Of the seven respondents, six employees believed that ETC is a good measure for their work. See Figure 27 for the distribution of responses.

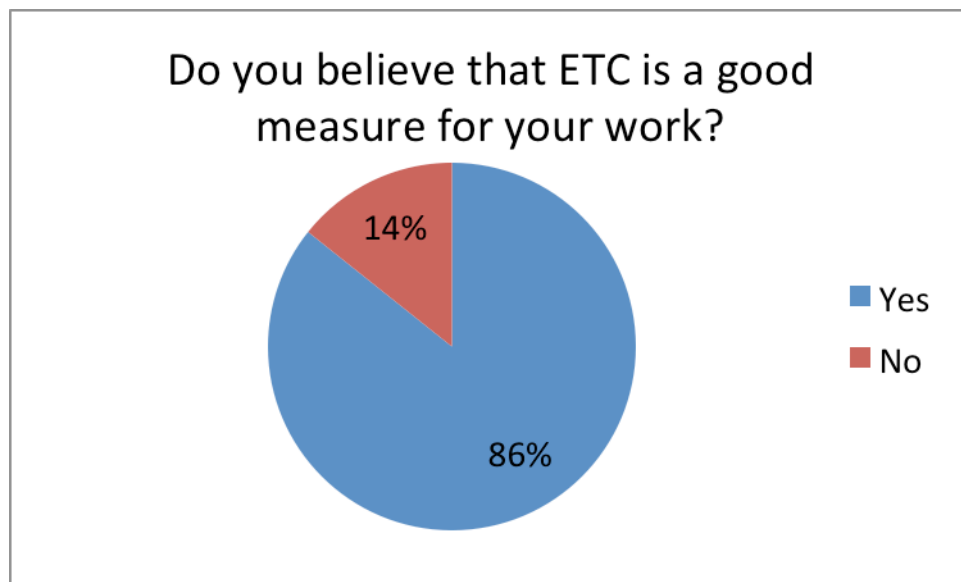


Figure 27 Application and Relevance of ETC

However of the same seven respondents, three employees believed that the ETC measure could be used more accurately. See Figure 28 for the distribution of responses.

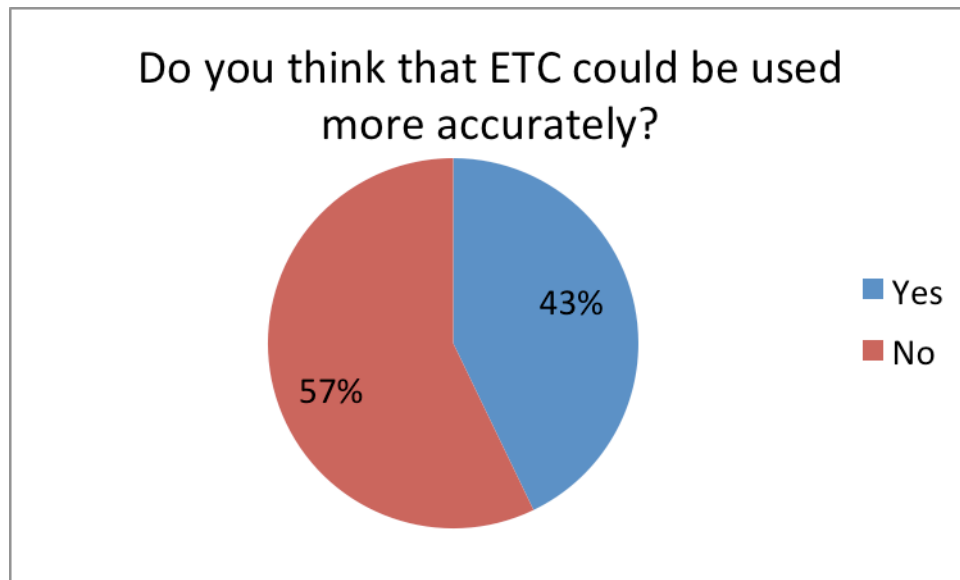


Figure 28 Using ETC More Accurately

While this analysis indicates that FI IT could benefit from further implementation of the ETC measure, there is not enough data to conclude that it will be beneficial. When asked whether ETC could be used more accurately an employee responded that “I think tasks need to be estimated using ETC and we can then track progress against these estimates.” On the other hand another employee responded that:

“The biggest problem with Clarity is that we don’t track actual time spent. We track the mythical 8 hour day. Very few people in my world work that few hours. Thus we have no record of what effort anything really took. Thus trying to estimate real remaining effort has no sound historical basis. We should start by tracking all real effort (excess hours, weekends etc.) to know what it really takes to deliver our tasks and projects. From such a sound historical base we could build metrics to help with future project management estimates.”

While the first comment represents how the ETC indicator could be used throughout project management, the second comment raises the question of the accuracy of the measure. To further understand the accuracy of the data represented in the current ETC indicators our team conducted secondary interviews.

4.2.2.4 Deficiency of ETC usage

Of the four categories offered to describe why employees are not using ETC including: I don’t know how to use it, it is inaccurate, it is unnecessary for my work and other there was no dominant response. See Figure 29 for the distribution of responses.

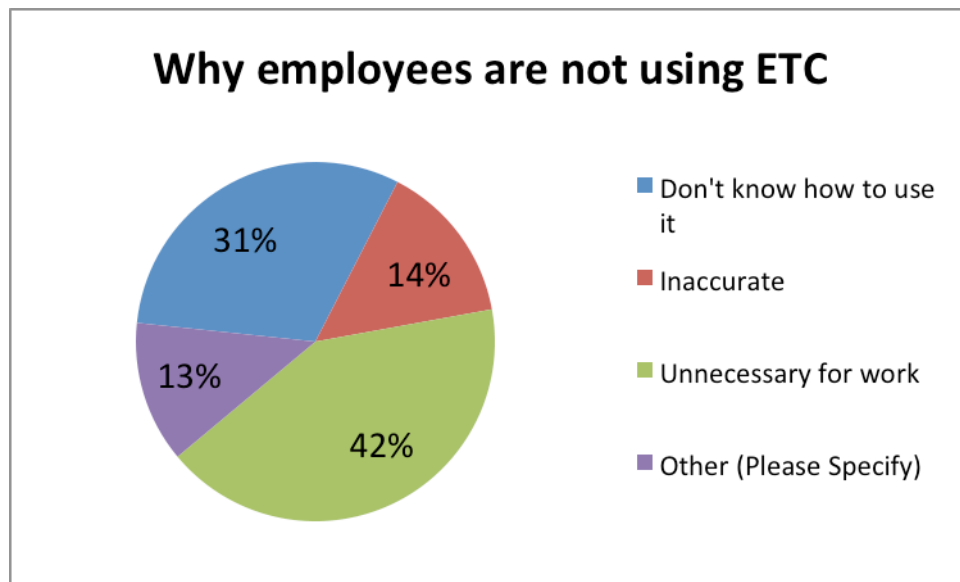


Figure 29 Reasons for not using ETC

From this graph it is apparent that the majority of respondents, 42 percent, find the ETC measure unnecessary for their work. The 44 percent of respondents that do not know how to use the ETC measure or find it inaccurate, imply there is a poor implementation of the measure throughout the company. This implication was reflected in the responses in the other category. One employee stated that they have asked about the ETC measure in the Clarity training, but was told it will not be used. Another employee said they consider the ETC indicator critical to project, but not included in any reporting so there is not point for its use. To advance our understanding for why employees are not currently using the ETC measure our team conducted secondary interviews.

4.2.3 Secondary Interviews

In continuation of developing our analysis of the ETC measure within FI IT our team conducted secondary interviews. During these interviews we asked questions concerning the accuracy and reasoning for not using the ETC indicator. From our interview with Julian Pemrick, our team discovered that unit of MD is not an accurate representation of the average work day. A MD is referenced as a unit of eight hours, although within FI IT the actual average MD is much more than eight hours. In addition

the MD unit does not represent when an employee is late, works overtime, is unable to come to work or takes a vacation. This inaccurate unit can cause major complications when using the ETC measure at the project level when the budget is much higher. Thus most project managers are more interested in the budget allocation for tasks, where the fluctuation of man days will be more controlled. Pemrick concluded that his job would benefit from the ETC measure if it were to be represented in real time MD, rather than the current hypothetical value.

In another interview with Paul Smyth reiterated the need for a real time budget of MD. He also encouraged the importance for project managers to consistently update and follow their estimations while working on a project. This practice will ensure that the budget is not being overused for unnecessary tasks. Smyth explained that making estimations is a logical procedure naturally calculated throughout everyday life. It is illogical to have a determined formula for the ETC measure company wide, but could benefit throughout individual teams or projects.

4.3 Connection between Clarity and JIRA

To analyze the usage of JIRA, its internal and external reporting tools and its connectivity between Clarity our team used primary interviews, surveys and secondary interviews.

4.3.1 Primary Interviews

Throughout the process of reviewing the project management systems Clarity and JIRA our team considered the efficiencies of the systems. While Clarity received a lot of negative feedback based on its slow and outdated software, JIRA received positive reviews for its productivity in real time task management. From our primary interview with Guy Coleman-Cooke, our team learned that there are many different reporting features offered by JIRA in the GreenHopper (AGILE) dashboard. In particular Coleman-Cooke uses the burn down chart that represents a real time news feed for representing his teams' issues and progress. While this dashboard is a useful representation of how all of the tasks progress and budgets are incorporated within a project, there is no consistency of usage throughout FI IT. With minimal to no trainings on how to use JIRA, project

managers are forced to learn and implement the project management system for their team. Considering the multitude of features offered in the JIRA dashboard, Coleman-Cook also raises the idea of sharing JIRAs among departments to learn new ways to represent data.

From further interviews with Alan Cable, our team also recognized the common data and means shared between Clarity and JIRA. Throughout most project groups employees use JIRA to track the projects progress at the task level. In many cases the important data produced in JIRA is referenced in the Clarity project. Within Clarity each task is reported to shadow the actual JIRA tasks, although there is no actual connection. In addition the budget spent on each JIRA task is currently manually entered into the Clarity project. Presently there is no formal connection between the two systems, though Cable suggests that project management would benefit greatly if the linkage was implemented. The linkage between the systems would encourage a more detailed project including the budget allocation at both the project and task level, as well as save employees time from reporting in two systems.

From these suggestions our team created survey questions that further investigate the usage of JIRA and the connectivity of the two systems.

4.3.2 Survey Results

There were five questions within our survey that observed the usage and reporting of JIRA and its connectivity with Clarity, including:

- 1- How often do you use JIRA?
- 2- How many projects are you currently managing/working on?
- 3- How are you currently connecting you JIRAs to Clarity
- 4- Do you use any external reporting tools to perform tasks based on JIRA data?
- 5- Please list any external reporting tools you use, if applicable.

4.3.2.1 JIRA

Of the 227 execution managers, program managers, project managers or team leaders and team members 81 percent reported that they use JIRA daily, see figure Q. JIRA being a task management system is expected to be used more frequently than a

project management system. In addition 10 percent of employees responded that they use JIRA weekly, and the final 9 percent responded that they use JIRA monthly. The distribution of usage can be seen in Figure 30.

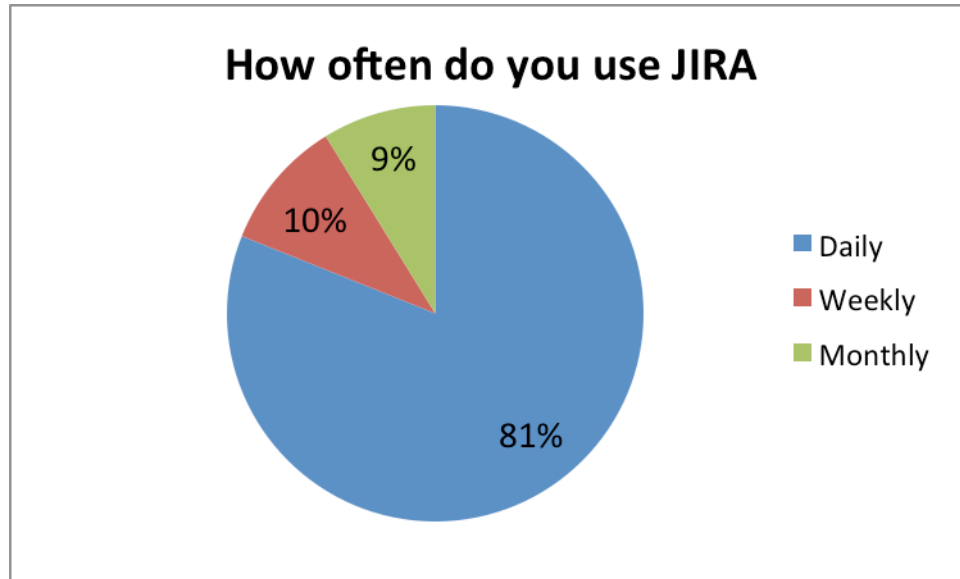


Figure 30 Frequency of JIRA Usage

To understand the distribution of JIRA usage our team observed the data based on employee role. From analysis, the majority of execution managers are using JIRA monthly. Since execution managers are working to oversee the project they rarely have to observe the project at the task level, corresponding to the use of JIRA. As for program managers, project managers or team leaders and team member, the majority of respondents are using JIRA daily. For program managers about 20 percent of respondents are using JIRA weekly. Within FI IT there are many cases where program managers are also labels project managers, suggesting that there is a difference in job description. It is expected for the solicit role of program managers they have less interaction in the task management of their teams projects, thus will use JIRA less often than the joint role. The distribution of JIRA usage filtered by role can be seen in Figure 31.

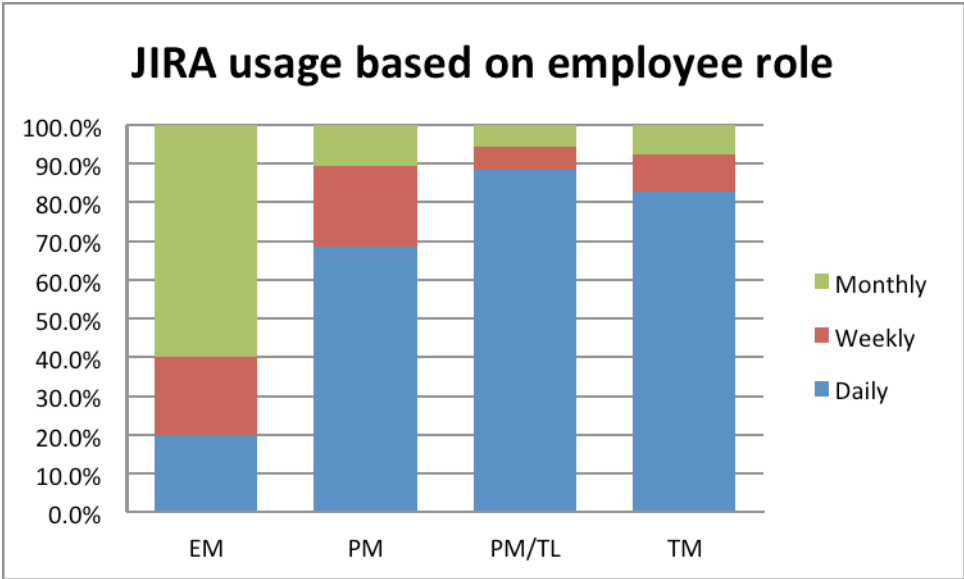


Figure 31 Frequency of JIRA Usage Filtered by Role

Our survey also observed the average number of JIRA tasks employees are currently working on. From analysis we found that the majority, 58 percent, or respondents on average work on one to two tasks at a given time. In addition 22 percent of respondents on average work on three to five tasks at a given time, and 20 percent of respondents on average work on more than five tasks at given time. See Figure 32 for the distribution of responses.

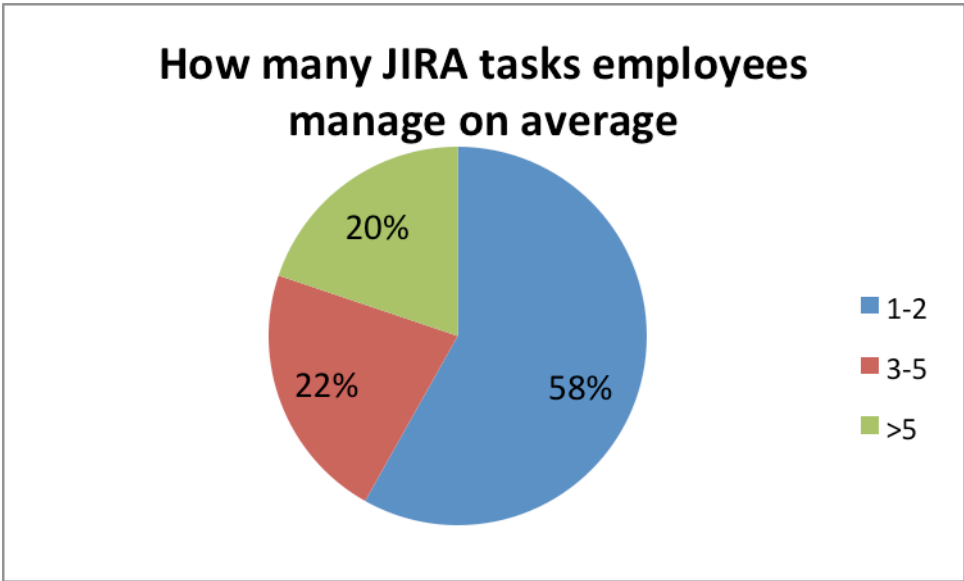
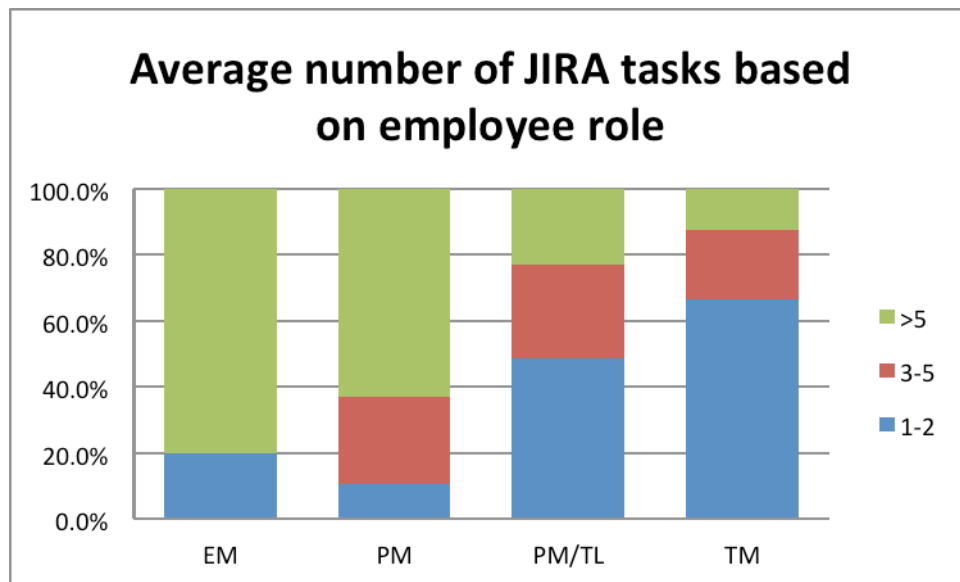


Figure 32 Number of JIRA Tasks Managed by Users

To further understand the average number of JIRA tasks employees are currently working on, our team analyzed the data based on employee role. From this analysis we found the majority of execution managers on average are working on more than 5 tasks at a given time. In many instances execution managers are overseeing multiple projects at a time, which require multiple JIRA tasks to be performed. For program managers, only some work on multiple at a time, they are less likely to have the same load of projects and tasks required as execution managers. As for project managers or team leaders, and team members, employees are mostly expected to only work on the JIRA tasks to which they are assigned.



4.3.2.2 JIRAs connectivity to Clarity

While observing the usage of JIRA our team investigated the possible connections it has with the project management system Clarity. This question required an open response answer, which we categorized the responses into groups including: Not, Manually, Web and Other. From records our team found that 66 percent of respondents are currently not connecting their JIRA data to Clarity. Specifically employees have no formal way of updating the time budgeted to JIRA tasks within the corresponding Clarity report. In addition this category is inclusive of those employees who are not specifically required to budget their time. From this analysis we also found that 24 percent of respondents are manually recording their data from a JIRA produced spreadsheet into

the corresponding Clarity project. In addition 4 percent of respondents replied that they are using the web. The web category is a collection of responses that explain the specific web browser used to open their Clarity reports to upload the pertinent data. Lastly 6 percent of employees gave responses regarding specific steps or reasoning to the question. Within the other some category responses explain why sharing the data between JIRA and Clarity is not inclusive in their work, or that they are currently not using one of the two systems. In addition other responses explained the misunderstanding regarding which data would be shared between the two systems suggesting the lack of awareness regarding the data. Figure 33 shows the distribution of methods to connect JIRA and Clarity.

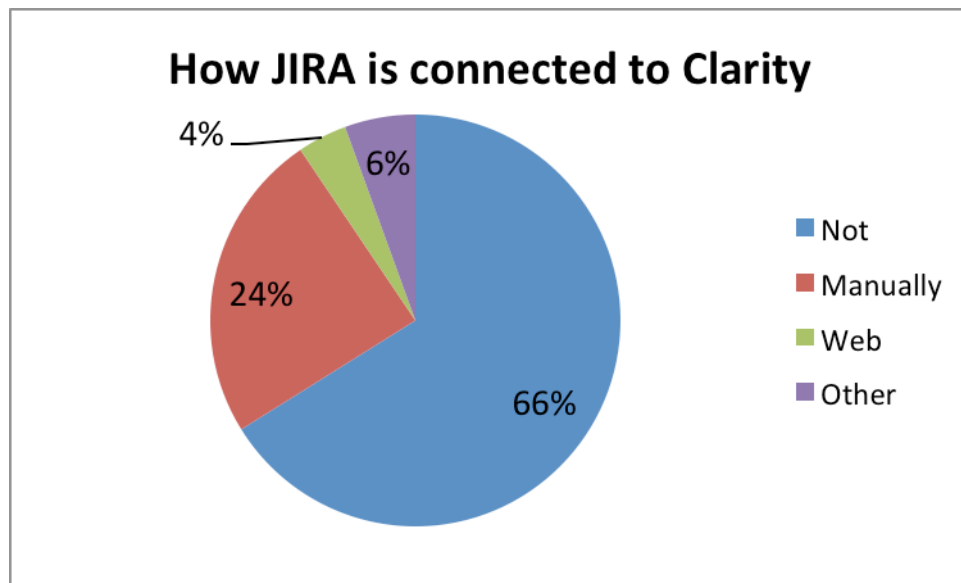


Figure 33 Methods of Connecting JIRA to Clarity

From further analysis our team also observed the relationship between connecting JIRA information to Clarity and an employee's role. We found that all execution managers that responded have no formal connection of JIRA and Clarity data. Since execution managers mainly overlook project and their corresponding Clarity reports, it is expected that they do not need to connect the data themselves. Regarding the program managers, project managers or team leaders and team members the responses are closely distributed. While the majority of the latter three groups of respondents are not using and

formal connection, some are manually connecting the data between JIRA and Clarity. The distribution of the connection method filtered by role is shown in Figure 34.

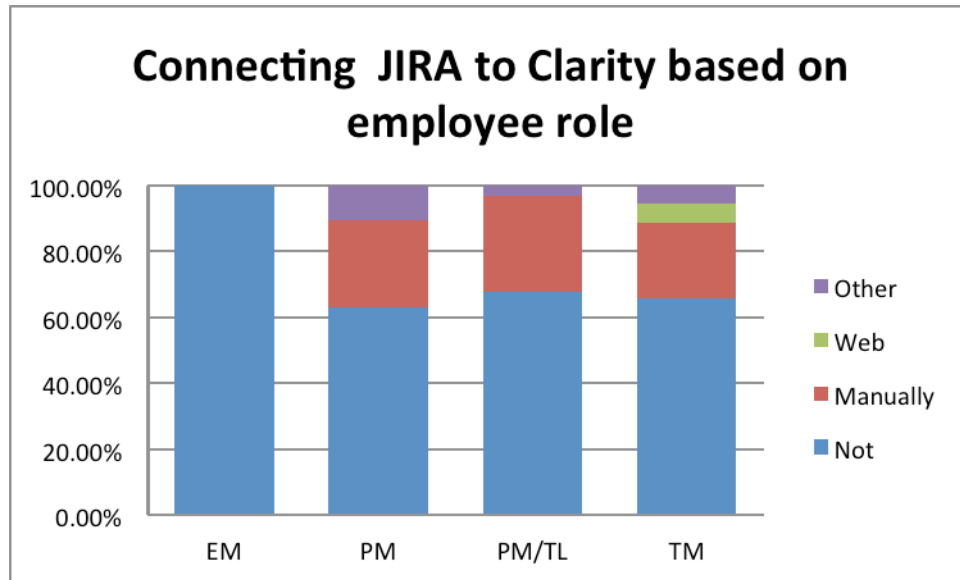


Figure 34 Distribution of Connection Methods Based on Role

Within the additional comment section at the end of our survey our team also found some necessary comments regarding JIRAs connection to Clarity. The first response from an employee states that the connection between these two project management systems would make these systems hard to manage due to the amount of increasing data. While Clarity is perceived as an already slow Internet tool it would not be capable of processing the data held within JIRA. The other significant response we observed answered:

This is very relevant work. We have these two great tools, but they have not been optimized for efficiency. Therefore people avoid using them, and the benefits of the investment so far are not being realized. With a small amount of intelligent integration work, large amounts of user effort (waste) could be eliminated to spend on value-add work. In the process, there would be a massive improvement in the transparency and visibility of plans and work being done – the bonus is the info could be real-time and paperless, and accessible globally.

This response suggests that the integration between the two systems would be efficient and beneficial to project management. While this employee suggests that with a ‘small amount of intelligent work’ would be applied to making this connection possible, in

actuality much more research and investigation would be necessary to prove this assumption.

4.2.2.3 External Reporting Tools

Within our observation of JIRA usage our team investigated the use of external reporting tools for the systems data. According to the survey results shown in Figure 35, 78 percent of employees are currently not using any external reporting tools.

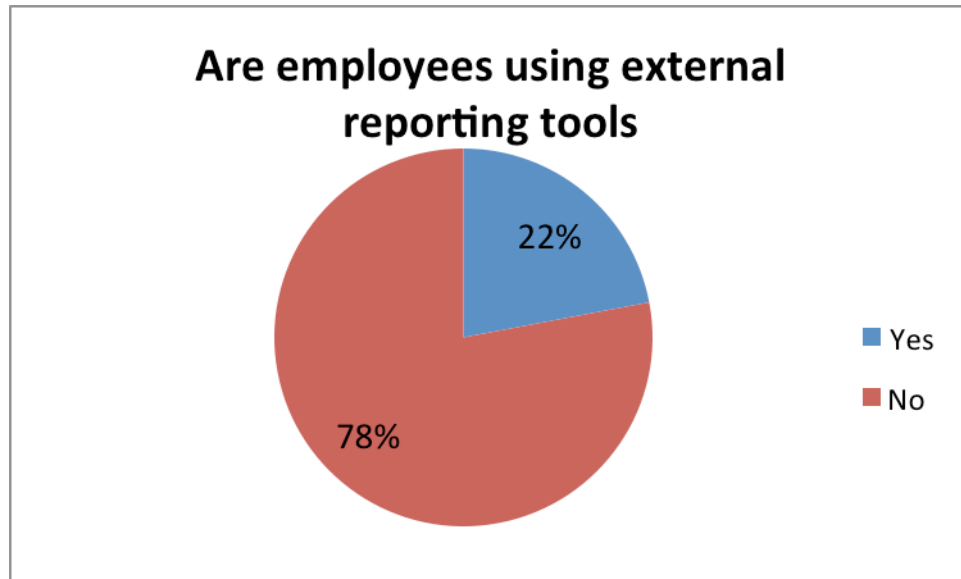


Figure 35 Distribution of External Tools Usage

Our team also investigated if there was a relationship between the use of external reporting tools and the employee's role. Figure 36 shows the distribution of external tools usage based on role. From this analysis the data suggests that the higher the employee role the more likely they are to use an external reporting tool to represent the JIRA data. While execution and program managers are mainly concerned with the budget data within JIRA they are more likely to use reporting tools to observe the data more efficiently, from the survey analysis we found that employees mainly use external reporting tools.

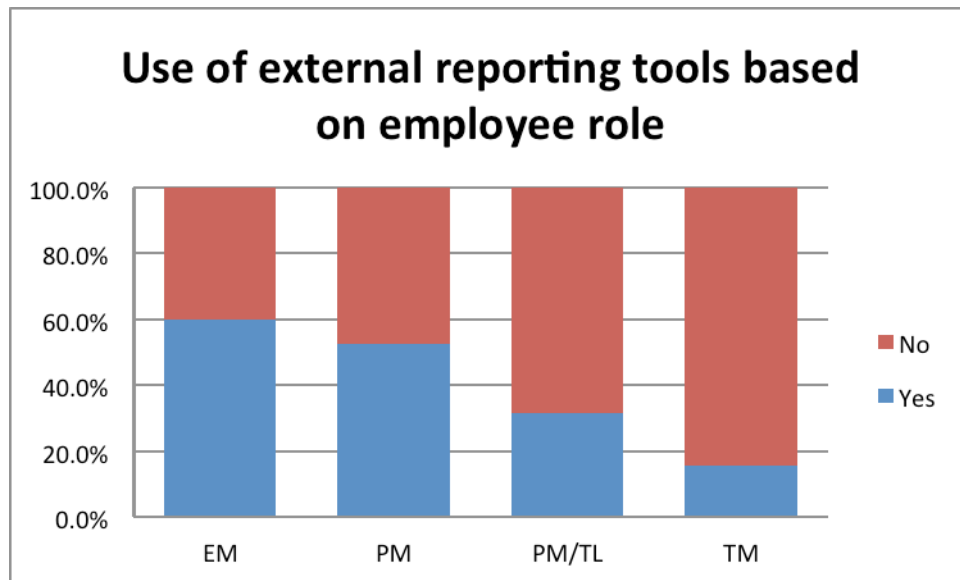


Figure 36 Distribution of External Tools Usage Based on Role

In our survey we also asked respondents to specifically list which external reporting tools they are using, if any. This question required open response answers, which we categorized the responses into groups including: None, Microsoft Excel, Business Objects, FX Intelligence, JIRA and Other. While 18 percent of respondents replied that they are not currently using any external reporting tools, the majority of respondents, 41 percent, replied that they are using Microsoft Excel. Employees use Structured Query Language (SQL) queries in order to extract the data from JIRA and represent it in Excel Spreadsheets. Business Objects is a tool used by 5 percent of respondents, in conjunction with Microsoft Excel, which concentrates in creating user specific pivot tables and other representations of data. Another 4 percent of respondents are using FX Intelligence, an online spreadsheet dashboard that specifies in comparing broker information. The 7 percent of employees that are grouped using JIRA consist of those using JIRA’s internal reporting tools such as the dashboard, burn down charts, rapide board, quality center, etc. The last category, consisting of 25 %, represents the following tools:

- In house developed reporting tool
- MIS reports
- KPI spreadsheet

- Power Pivot
- Tableau
- Wiki Release Pages

Figure 37 shows the distribution of various external reporting tools.

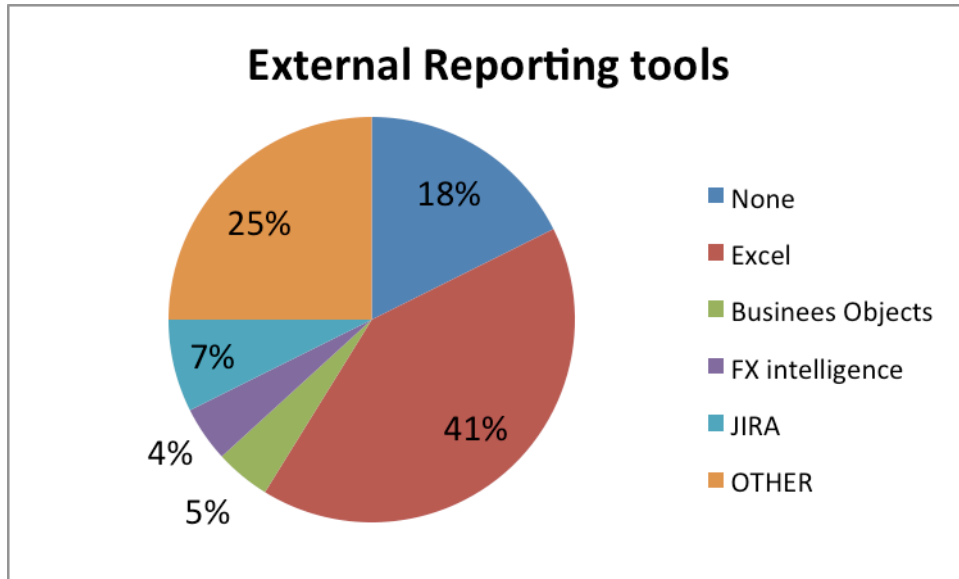


Figure 37 Types of External Reporting Tools

4.3.3 Secondary Interviews

In the secondary interviews regarding JIRA we specifically looked to understand the connection between JIRA and Clarity as well as the use of external reporting tools. While there were multiple different external reporting tools described throughout our survey it was infeasible for our team to continue investigation of each tool. With guidance from our sponsor our team chose to further understand the usage of the external reporting tool Tableau. Julien Dinh described to our team that he is currently using Tableau to display the JIRA data in a more efficient manner to track the progress of his team. Dinh is using a series of different colors and sized boxes to represent which project and how large the task is respectively. Dinh describes that he is using Tableau because JIRA does not represent the pairing of parent projects and their corresponding subprojects or allows the entire team to have equal permissions to view projects. In this case Tableau is allowing Dinh to have an up to date visual representation of progress,

though holds no tactical information. Dinh is the project manager in his team and has no use of understanding the layers to which he could use Tableau. Though this project management system is beneficial to this specific team, there are limited licenses throughout BNP Paribas and could prove to be an infeasible option.

Throughout additional interviews our team also gained more knowledge regarding the possible connections between JIRA data and Clarity. Speaking with Amaury Guyot our team sought to understand the reasoning between the connection between the systems. JIRA is a system used to track the progress of AGILE or continuous development, whereas Clarity is used to report the results of waterfall, or case dependent development. Guyot describes that while there are differences in the project management data between the two systems, there is shared data pertinent to each. In addition from interviewing Jeremy Clayton our team recognized a misuse of Clarity. Clayton described that his team generally updates JIRA budgets into an unused Clarity task field labeled, environment field.

4.4 Presentation

From the analysis our team formed a set of conclusions and recommendations that were presented to our sponsors and other FI IT employees. From our presentation our sponsor David Purdie confirmed that while we did not have the expertise essential to producing the new Clarity Project Report, it was feasible. Our data, analysis and suggested Clarity Project Report will be presented to the appropriate managers for creating the technology required. In addition there was a general consensus that there is confusion of how to accurately use the ETC measure throughout FI IT. The suggestion to further investigate the actual average time worked in a man day would be beneficial for all aspects of project reporting. Our sponsors were surprised by the multitude of tools used for internal and external reporting of JIRA data and confirmed that it is essential to investigate the best current practices. Lastly our sponsors again confirmed that the possibility of connecting Clarity and JIRA would require more technical investigation, in relation to the cost benefits it would produce.

4.5 Difficulties Experienced Throughout the Project

When completing the project, our team has experienced a variety of challenges and obstacles that we overcame in order to meet our goals and deliver our recommendations. It is important to note these difficulties to help understand the timeline and methodology of the project. Both the BNP Paribas sponsors and WPI advisors were aware of the difficulties throughout the project and provided as much assistance as possible to support our work.

4.5.1 Lack of Access to the Systems

Due to the fact that our team is considered non-paid interns at the bank, we were not granted company email access or access to any system. Our team shared a generic log-in account to use a desktop at the office. However, with limited access and lack of electronic communication, it was very difficult to contact interviewees and receive documents from others. For the first two weeks, our team received information and data through hard copy documents but with the help of the sponsors, a SharePoint site was created for our team to share information and access documents electronically.

4.5.2 Trouble with SharePoint Survey

A benefit of using SharePoint with our project is the ability to create a survey through the site. Unfortunately, due to unknown logistical failures, the SharePoint survey did not record all respondents' answers. Our team realized this a couple days after the survey was released and this caused a short delay in data collection. As soon as we learned of the issue, a new survey was quickly created through eSurveysPro and dispersed through FI IT London.

Despite that SharePoint is a common resource for the company, using a different tool instead of SharePoint for the survey was actually more advantageous. The interface of SharePoint limited customization of how the questions were visually presented and was not as intuitive as expected. In contrast, eSurveysPro allows various formatting, conditions, and page skips.

4.5.3 Discrepancies in the Survey Results

The survey was successfully dispersed by email to all employees in FI IT London execution areas. However, a couple employees who were in non-London teams also completed the survey. Outdated email aliases or lists can cause this, so we removed their responses to keep the survey population consistent to FI IT London. When analyzing the data from the survey, our team came across several discrepancies. One common discrepancy was the confusion to the question regarding an employee's role in the team. There are only 8 execution managers, so when this number was more than 8, we realized some employees misunderstood the question and we would refer to an organization chart to correct their answer.

It is crucial for this type of answer to be fixed to accurately analyze data with regards to roles. In addition, different roles will take a different route during the survey. A team member would skip all questions related to the Clarity Project Card and ETC since he/she should have little to no interaction with these tools in their normal work. On the other hand, execution managers, program managers, and project managers or team leaders would have to answer all questions in the survey as they are exposed to all of the subjects in their work.

The discrepancies in the survey results were identified and resolved within a week. This caused another short delay in data analysis since part of the data analysis had to be performed again.

Chapter 5 Conclusions and Recommendations

After assessing all information gathered from the interviews and survey, conclusions were drawn from the data analysis and a proposed Project Card is template is created. Suggestions for future development were developed for the Clarity and the Project Card, the ETC measure, and the visibility or JIRA data and its connectivity with Clarity. The recommendations would allow management to track the progress and improvements of project management and reporting.

5.1 Suggested Clarity Improvements

A revised Project Card was created as a template for FIIT to use for reporting and build upon for further improvement. This Project Card template reflected the FIIT's responses through the interviews, the survey, and the feedback from the sponsors. Some components were removed or added to the existing Project Card while some components remained unchanged.

As described previously in the Findings and Discussion chapter, a weighted scale was applied to the ratings of the component to calculate a value for each component and evaluate their usefulness to the Project Card. The values were then used to plot a box and whisker chart to determine ranges of values of components that can be removed. The components that had values lower than the first quartile can be removed. In addition, components with values greater than the first quarter but less than the median can be removed with discussion. Any other components that show repetitive information can also be removed despite having a high value.

In the Project Card template, the Project Financials page and the Project Governance page from the existing Project Card are removed. The Project Financials are currently represented in million Euros. However, through interviews, it is found that these numbers are not always calculated correctly. Therefore, the information from the Project Financials page is not always used or is not always used accurately. In place of the Project Financials page, a section named "Project Budget" shows the project's financial standing in terms of man days and man years since it is a more accurate representation of the financials and use of resources. The Project Budget section is shown in Figure 38. The budget is also displayed in a bar graph where the actuals (resources used) and the ETC are shown against the budget. This visual can show immediately if the project would require more budget than initially allocated. A pie chart visually shows the distribution of the budget and resources for a better understanding of the total effort. The use of visuals allows information to be better presented to the consumer of the data.

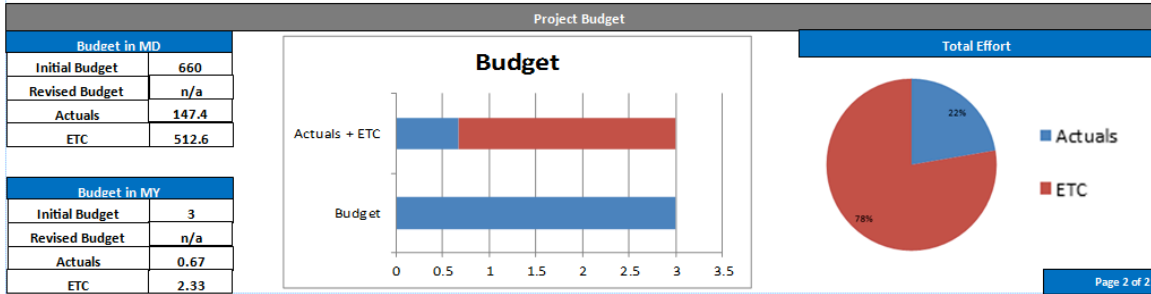


Figure 38 The Project Budget section of the Proposed Project Card Template

The Project Governance page had received relatively high values from the calculations of the weights. This page shows the project manager, sponsor, stakeholders, and steering committee members. Although this information may be helpful for contact, it is repetitive to show project manager and sponsor again, as it is already shown in the project description. Also, the project manager and sponsor can easily find or provide the contact information of stakeholders and other important individuals if necessary. Therefore, the Project Governance page is removed to make the report more concise.

Other components that are removed include: the Key Milestones Top 10 List, the Achievements text box in Project Status, and the Upcoming Activities text box in Project Status. Despite that the information in these components are relevant in observing current state and future steps of the project, it can be better presented differently. To provide the same information, a “Milestones Delivery Plan” is added instead. Figure 39 shows the added component.

| Milestones Delivery Plan (Achievements & Next Steps) | Target Date | Status |
|--|-------------|-------------|
| | | Completed |
| | | Completed |
| | | In Progress |
| | | Delayed |
| | | Not Started |

Figure 39 The Milestones Delivery Plan section of the Proposed Project Card Template

This table uses both text and colors to visually show what is completed in the last month, what is currently in progress, what is delayed, and what is not started. This component

would allow the same information be displayed without excessive text. As part of the Project Status, there are two additional components to fully understand the progress of the project. One of which is the Reasons for Red and Amber text box and the other is the Risk and Issues chart shown in Figure 40. The Reasons for Red and Amber text box supports the Back to Green Plan text box and provides more context to the project's updates. The Risk and Issues chart details the critical items while also showing the plan for mitigation and resolution.

| Critical Risks/Issues | |
|-----------------------|-----------------------|
| Description | Mitigation/Resolution |
| | |
| | |
| | |
| | |
| | |

Figure 40 The Critical Risk and Issues section of the Proposed Project Card Template

While there are many added and removed components, the Project Description section remains the same with minor changes to sizing and spacing of the format. The Gantt chart of the Project Plan remains in the Project Card despite its low value. However, it is found through interviews that it will be helpful when used with the Project Budget. The text box complimentary to the Gantt chart is removed as it does not add much value to the report. Figure 41 shows page 1 of 2 of the proposed Project Card template.

| PROJECT CARD | | Functional Layer | Sponsor | Project Manager | Total Budget/Forecast Over Years (Cash m€) | 0.00 m€ | Extra Budget Required in 2013? Notable Project | No | Instrument Driver | Capitalisation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---------------------------|------------------|---------|-----------------|--|--|--|----|-----------------------|----------------|---|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------|--|--|--|--|--|--|--|--|--|--|--|------|--|--|--|--|--|--|--|--|--|--|--|
| Project Description | Reason for doing Project: | | | Benefits: | | | Scope: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Status | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Overall Status | % Complete | Global | Risk | Cost | Timing | Total | Critical Risks/Issues | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % | | | | | | ↗ | Description | | Mitigation/Resolution | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| Executive Summary | | | | | | | Milestones Delivery Plan (Achievements & Next Steps) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Reasons for Red & Amber | | | | | | | Target Date | | Status | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Back to Green Plan | | | | | | | | | Completed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Risk & Dependencies | | | | | | | | | Completed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | In Progress | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | Delayed | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | Not Started | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Approvals | | | Date | Decision | | Key Milestones | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Start 01/01/2013 End 31/12/2014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | <div style="display: flex; justify-content: space-between;"> 1 2 </div> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td><td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> <tr> <td colspan="12">2013</td> <td colspan="12">2014</td> </tr> </table> | | | | | J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | 2013 | | | | | | | | | | | | 2014 | | | | | | | | | | | |
| J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2013 | | | | | | | | | | | | 2014 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | Page 1 of 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Figure 41 Page 1 of 2 of the Proposed Project Card Template

The first page of the template shows the Project Description and Project Status. Figure 42 shows page 2 of 2 of the proposed Project Card template.

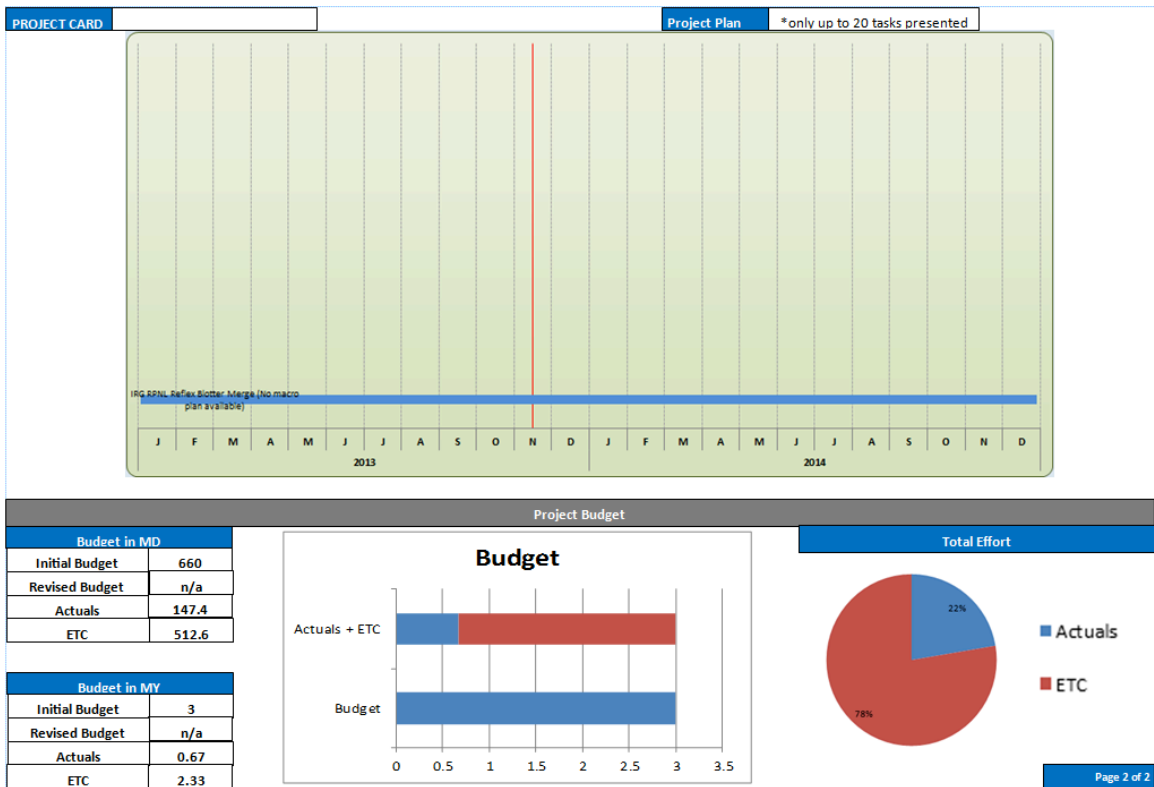


Figure 42 Page 2 of 2 of the Proposed Project Card Template

The second and last page of the template shows the Project Plan and Project Budget. This monthly reporting document has been reduced from four pages to two pages. This is a significant change to help achieve conciseness and effective data reporting. The proposed Project Card template is suggested to be used as a foundation for further improvements. The changes made in the template accounts for the feedback gathered in the duration of this project. However, it is worth putting this template in trial and determines its effectiveness.

The Project Card template is one of the suggestions to improve Clarity's usage. More suggestions were made to assist in sustaining improvements and progress of project management and reporting. First, implementing a regular review process for the Project Card allows continuous improvement to the report. Through a regular review process, additional components can be added as necessary. Components that were suggested through the survey like evolution of budget and cost benefit of project can be evaluated for adding into the Project Card. Secondly, it will be helpful to investigate the potential of

having customized Project Cards per team if plausible. Lastly, to improve the use of Clarity in general, more training sessions should be provided. Clarity was implemented fairly quickly and although there were training sessions available at implementation, many users still express that they are unfamiliar with Clarity's different uses. Additional training sessions would educate users on Clarity's benefits and how the system can be used to its full potential. Ultimately, the suggestions can help employees use Clarity to effectively report progress and consumers of the data can make proper business decisions.

5.2 Suggested ETC Usage

We conclude that there is a lack of knowledge and practice regarding the ETC measure throughout FI IT. Our analysis emphasizes why employees are not using the measure and we conclude that most employees do not understand the potential of the measure. To optimize the usage of ETC our team suggests that FI IT should begin with further investigation which teams are currently using the measure and its effects on their work. We also suggest that BNP incorporate a company-wide standard for a definition of ETC that allows teams to understand how it could be applied. While the ETC measure is customizable we suggest that teams should be required to create their own method of calculation. Once these practices are implemented our team also suggests to track the improvement made by the changes, and to share the most efficient practices throughout project teams. Lastly our team also suggests that BNP further investigate the actual average workday of an employ to better represent the Man Day.

5.3 Potential JIRA Connections to Clarity

There are multiple internal JIRA reporting tools that are presently being used throughout FI IT. While there are many external reporting tools being used to represent JIRA data, they are mostly team specific and could not be beneficial to all project teams. To improve the visibility of JIRA data our team first suggests that FI IT allow teams to easily share permissions with other teams, exclusive of the ability to edit. Our team believes that from allowing visibility teams can learn about the possible reporting tools and how it can represent that data. In addition to visibility permissions, the

communication of sharing the best practices found for reporting among teams would also help raise the awareness of what tools are available and how to use them. Lastly we suggest that FI IT should track the improvement teams that use a reporting tool and how it compares to other tools.

The idea of having a formal connection between Clarity and JIRA data was received positively. While most employees are currently manually updating their data into Clarity lines they are losing more value added time. We also found that this manual connection allows that employees are more likely to input the incorrect or inaccurate data. Our team suggests determining the specific data that would be pertinent to share between the two systems. While these two systems use different project management methods, some data would not be universal and could cause more problems when shared. In addition the company would need to understand if it is feasible and possible to create such a connection between Clarity and JIRA data. If it would be beneficial to the company we suggest FI IT to first test the connection in the teams that are more likely to succeed. By slowly introducing the improved project management connection FI IT can ensure that it is beneficial and work out any additional maintenance required to make the improvement profitable. Lastly as this is implemented we suggest to consistently assess if the connection is beneficial to the teams, and profitable overall.

Chapter 6 Reflection of the Project

Ultimately this project provided recommendations divided into three separate processes concerning the application of CA Clarity, JIRA and the ETC measure.

6.1 Discussion of Design

This project focuses on providing BNP Paribas' FI IT department with processes that will improve their efficiencies in data reporting and making data driven decisions. Our team reached conclusions by conducting a series of interviews and surveys. The design of our methodology was important in allowing continual improvement throughout the progression of a project. By using survey data and recommendations from our sponsor

our team continually conducted specific interviews in order to ensure the quality of the data we were analyzing.

The design of our methodology is very similar to that of the recommendations we provided. Our team provided a series of process that aim to improve the data reporting used with CA Clarity and JIRA, as well as to improve the application of the ETC measure. The process for each of these areas is to conduct further research, test the implementation, share the best practices and consistently improve the application.

6.2 Constraints

This project focused on providing a solution that benefits both the employee health and economic improvement of BNP Paribas' FI IT department. Our projects' purpose of providing recommendations for increasing efficiencies in data reporting was based upon the views, opinions and needs of the employees directly. As we analyzed data by execution area to examine if there were a need for separate project reporting recommendations, we did not give any priority to any specific execution area. It is important that the investigation of the similarities and differences among execution areas is continued in order to assure the best interest of the employees are maintained.

The ultimate goal of this project is to improve the economic growth of BNP Paribas. The recommendations were designed to support the execution managers with the optimal information for their decision making based on Fixed Income. The decisions made by FI IT execution managers directly affect the profitability of BNP Paribas. While the financial industry is constantly changing, the future of this project relies on accommodation to the current standards and practices of the decisions execution managers are faced with.

6.3 Life-long Learning

Throughout this project our team implemented the concepts and theories learned throughout our course work at Worcester Polytechnic Institute. While we have studied how to analyze data throughout lab work, this project presented the real life application of data collection and organization. It was valuable to understand how to design a process that allows continual improvement throughout the progression of a project. In addition,

since this project is a set of recommendations, it will be very important for our team to understand their final application and impact if used by our business sponsors.

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Appendix

Appendix A: Survey

Clarity and Jira Usage
Answers marked with a * are required.

The purpose of the following survey is to assess the user experience of Clarity and Jira throughout Fixed Income IT.

1. Which execution area of FIIT are you part of? *

- Americas - Robert Levin
- APS - Samaun Bhula
- APS Electronic Markets - Wells Powell
- Asia - Robert Horsfall
- Credit - Paul Harvey
- eCommerce - Mark Williamson
- Front to Back - Adalbert De Broglie
- FX eTrading - Philippe Soubrane
- Mumbai - Philip Clark
- Risk & PnL - Philip Coleman
- Security, Architecture & Governance - Frederic Hustache

2. Which of the following best describes your role? *

- Execution Manager
- Program Manager
- Project Manager/ Team Leader
- Team Member

Clarity and Jira Usage

Answers marked with a * are required.

Clarity usage

3. How often do you use Clarity? *

- Daily
 Weekly
 Monthly

4. For reporting with the Clarity Project Card, how relevant do you find the following components?

Please reference the numbered sections in the example of the Clarity Project Card attached to the email from Phil Coleman.

Project Description - Section 1 *

| | Unnecessary | Helpful | Essential |
|-------------------|--------------------------|--------------------------|--------------------------|
| Context Text Box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Benefits Text Box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Scope Text Box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. Project Approvals - Section 2 *

| | Unnecessary | Helpful | Essential |
|---|--------------------------|--------------------------|--------------------------|
| Project Approvals description, date, and decision | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. Project Status - Section 3 *

| | Unnecessary | Helpful | Essential |
|--------------------------------|--------------------------|--------------------------|--------------------------|
| Overall Status Table | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Executive Summary text box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Achievements text box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Upcoming Activities text box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Back to Green Plan text box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Risk and Dependencies text box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

7. Key Milestones - Section 4 *

| | Unnecessary | Helpful | Essential |
|---------------------|--------------------------|--------------------------|--------------------------|
| Key Milestones plan | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. Key Milestones Top 10 List - Section 5 *

| | Unnecessary | Helpful | Essential |
|-------------------|--------------------------|--------------------------|--------------------------|
| Baseline text box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Revised text box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Comments text box | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Clarity and Jira Usage

Answers marked with a * are required.

Clarity usage contd.

9. Project Plan - Section 6 *

| | Unnecessary | Helpful | Essential |
|----------------------------|-----------------------|-----------------------|-----------------------|
| Gantt Chart | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Planning Comments text box | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

10. Project Financials - Section 7 *

| | Unnecessary | Helpful | Essential |
|-----------------------------|-----------------------|-----------------------|-----------------------|
| Cash in m€ | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| P&L in m€ - Project Costs | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| P&L in m€ - Running Costs | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Financial Comments text box | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

11. Project Governance - Section 8 *

| | Unnecessary | Helpful | Essential |
|---------------------------|-----------------------|-----------------------|-----------------------|
| Project Manager text box | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Sponsor text box | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Stakeholders text box | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| SteerCo Members text box | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| SteerCo Planning text box | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Notes text box | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

12. Which of the following components would you like to see on the Clarity Project Card?

- Reasoning and objectives for the project
- Budgets represented in Man Days (MD)
- Budgets including Estimate to Complete (ETC)

13. Do you have any suggestions for additional components on the Clarity Project Card?

Clarity and Jira Usage

Answers marked with a * are required.

Estimate to Complete (ETC)

14. Do you use the Estimate to Complete (ETC) indicator? *

- Yes
- No

Clarity and Jira Usage

Answers marked with a * are required.

Estimate to Complete (ETC) contd.

15. How are you currently calculating and using ETC? *

16. Do you believe that ETC is a good measure for your work? *

Yes

No

17. Do you think that ETC could be used more accurately? *

Yes

No

18. Please explain why you think ETC can or cannot be used more accurately. *

Clarity and Jira Usage

Answers marked with a * are required.

Estimate to Complete (ETC) contd.

19. Please explain why you do not use ETC. *

Don't know how to use it

Inaccurate

Unnecessary for work

Other (Please Specify)

Clarity and Jira Usage

Answers marked with a * are required.

Jira usage

20. How often do you use Jira? *

- Daily
 Weekly
 Monthly

21. How many projects are you currently managing/working on? *

- 1-2
 3-5
 >5

22. How are you currently connecting your Jiras to Clarity?

23. Do you use any external reporting tools to perform tasks based on Jira data? Please explain. *

- Yes
 No

24. Please list any external reporting tools you use, if applicable.

25. Thank you for completing this survey, your efforts are greatly appreciated. Please leave any additional feedback or comments pertaining to this survey in the following text box.

Appendix B: Sample Clarity Project Card

| Project Card | Functional Layer | Sponsor | Project Manager | Total Budget / Forecast over years (cash m€) | Extra Budget required in 2013 ? | Investment Driver | Capitalisation |
|---------------------------|------------------|---------|-----------------|--|---------------------------------|--------------------------------|----------------|
| IRG RPNL Exotics Envelope | Risk P&L | NA | BARRETT, Graham | 0.00 m€ | No | Industry mandated / Regulatory | Cap3 |

Clarity Project data as of: 12 Nov 2013 09:00:02:800

1 Project Description

Context NA

Benefits

Scope

2 Project Approval(s)

| Date | Decision |
|------|----------|
| | |
| | |
| | |

3 Project Status

| Overall Status | % Complete | Global | Risk | Cost | Timing | Trend |
|----------------|------------|--------|------|------|--------|-------|
| | 0% | | | | | |

Executive Summary -

Achievements -

Upcoming Activities -

Back to Green Plan -

Risk & Dependencies -

4 Key Milestones

Start 01/01/2013 End 31/12/2014

| 2013 | 2014 |
|-------------------------|-------------------------|
| J F M A M J J A S O N D | J F M A M J J A S O N D |

5 Key Milestones (top 10)

| | Baseline | Revised | Comments |
|-----------------|----------|------------|----------|
| 1-Project Start | - | 01/01/2013 | |
| 2-Project End | - | 31/12/2014 | |

| | |
|---------------------------|-------------------------------|
| Project Card | Project Plan |
| IRG RPNL Exotics Envelope | *only upto 20 tasks presented |

| | |
|---------------------------|-------------------------------|
| Project Card | Project Plan |
| IRG RPNL Exotics Envelope | *only upto 20 tasks presented |

6

IRG RPNL Exotics Envelope (No macro plan available)

| 2013 | | | | | | | | | | | | 2014 | | | | | | | | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|------|---|---|---|---|---|---|---|---|---|---|---|
| J | F | M | A | M | J | J | A | S | O | N | D | J | F | M | A | M | J | J | A | S | O | N | D |
| | | | | | | | | | | | | | | | | | | | | | | | |

Planning Comments -

Appendix C: Primary Interview Meeting Minutes

Untie, John. Personal Interview. 28 October. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- Working in governance for Quality Methods and Tools, I observe how project managers are recording their projects in Clarity
 - I implement the instructions for creating the standards and best practices for Clarity reports
- Working closely with the work management process I observe how the logic and usage of Clarity compare

What are some challenges or disappointments that you have with the system?

- The challenge I have with Clarity is creating an optimal universal product that would be beneficial for all execution areas
- Clarity is an extremely useful tool and it is beneficial to the company

What are some features that you would like to see this system execute?

- I would like to see compliance throughout all of FI IT
 - Clarity is a powerful tool that would be very beneficial if all users were accurately recording their projects

Gorst, John. Personal Interview. 28 October. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- Similar to John Untie, I work closely with Clarity in governance
 - My position is to check how project managers are using Clarity
 - I observe the compliance reports throughout FI IT for Clarity projects
 - I contact all project managers to report that their Clarity projects are not in compliance according to the regulations

What are some challenges or disappointments that you have with the system?

- There has been a great lack of compliance throughout FI IT
 - Recently we have been really pushing project managers to follow the FI IT Clarity Rules I have created

- Project managers usually record incorrect Clarity reports regarding the first rule
 - The first rule is requiring Clarity to report in the standard activity classifications
 - Plainly project managers are either lacking or incorrectly using terminology within their Clarity reports

What are some features that you would like to see this system execute?

- I think that Clarity is very useful, and would be beneficial to projects if their reports were completed accurately
- Clarity was introduced recently, and has not received a universal acceptance throughout FI IT
 - Employees should attend Clarity training sessions and read the requirements more closely to optimize the reporting within Clarity

Berger, Anne-Charlotte. 29 October. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I work for the Risk & PnL program management team with Dave Purdie
- It is my job to analyze the actuals and budgets throughout projects, using Clarity and Business Objects

What are some challenges or disappointments that you have with the system?

- Currently we do not use Clarity directly to report the budgets
 - Previously using Project zoo, the budgets section was much more defined for FI IT
 - We are now exporting the Clarity data to preform queries in Business Objects
 - Business objects is useful, but it is tedious to create multiple queries of data to produce the report that you wish, within the old system Project Zoo the queries required were already calculated for you

What are some features that you would like to see this system execute?

- It would be beneficial for employees to accurately update their Clarity reports and budgets
 - There is a lack of consistency of reporting and budgeting within Clarity, which makes it more challenging to present the actuals and budgets on a yearly basis

Little, David. 29 October. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I work for the Risk and PnL Function area of Application and Production Support
- I honestly do not use Clarity, I am the manager of managers, thus I am in no direct contact of their Clarity projects
 - I have the project managers report to me on their budgets, actuals and progress, but not in terms of Clarity
 - I assume that Clarity does not produce the report with the pertinent information I am interested in

What are some challenges or disappointments that you have with the system?

- Since I really don't use the system, I don't really know
- I however do not like that there is no display
 - Throughout my project manager team I use a manual whiteboard to track the progress of all the projects
 - I don't think the manual whiteboard is too tedious, and I like the customization it allows for the information

What are some features that you would like to see this system execute?

- It would be useful if the program represented all of the projects my team members are working on, though I do not see this as a solution
- I do not think that Clarity would benefit my position at all

Lobley, Ben. 29 October. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I am currently the head of IT Controls for FI IT Risk & PnL

- I use Clarity quite often but to report the budgeting for market change, which is a very transversal task
 - I use Business Objects as well as other tools to report
 - Business Objects offers the customizations to create multiple pivot tables and other analysis tables
 - Business Objects however lacks the user interface the Project Zoo offered
- What are some challenges or disappointments that you have with the system?
- I believe that Clarity is a powerful tool that simplified the three tools we previously used with Project Zoo
 - Though it is very poorly managed and has bad implementation
 - Clarity has no formal approval system
 - I am worried that without this system the idea of checking your work with upper management will be lost, and projects could be completed, unfinished or inaccurate

What are some features that you would like to see this system execute?

- It would be beneficial if Clarity took the actuals of budgets into consideration
 - Currently the budget is being reported in man day, with a total cash equivalent
 - This makes it impossible to understand employees individual worth to the company, and makes the allocation of budgets to projects difficult
 - There is no difference between one man earning £25,000 and 5 men collectively earning £25,000
- Budgets also are considered throughout two types of depreciation, which Clarity does not take into consideration
 - There are different depreciation methods for RTB and CTB
 - Usually the depreciation is 3 or 5 years
 - Clarity does not represent depreciation in budgets

Barrett, Graham. 30 October. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I am currently working on Risk Generation for FI IT Risk & PnL
- This position does not require me to use Clarity
 - I am a program manager that oversees project managers
 - Most of my team does not use Clarity

What are some challenges or disappointments that you have with the system?

- Clarity is a slow and Clunky system
- It is a waste of my time to update my budget in Clarity
 - It is hard to remember the exact amount of time that was spend on each project/task/milestone
- The system adds no value to our team
- For the estimate to complete measure I find it very difficult to use with our work
 - With coding it is very hard to determine the estimate to complete for one line of code, it is a very difficult line that takes a day to accomplish, or a basic line that takes seconds

What are some features that you would like to see this system execute?

- It would be beneficial if this system could automatically record the time allocated on a project/task/milestone as it was completed

Franchi, Greg. 31 October. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- My position is to work with Ben Loblely on the IT Controls for FI IT Risk & PnL
- I am currently using Clarity to track the budget of my team

What are some challenges or disappointments that you have with the system?

- Clarity was not implemented well throughout FI IT
 - We were given no introduction or proper training of the sudden switch for Project Zoo to Clarity

- Many employees instantly were against using the new system because it was so different from Project Zoo
- Project Zoo was a system that contained three different tools including: Budgets (Badger), Timesheets (Yeti) and Project Register (Beaver)
 - Project Zoo was easy to navigate, and allowed users to search for projects based on multiple objectives
 - Project Zoo produced a budget report, whereas Clarity only produces the data that you then have to analyze

What are some features that you would like to see this system execute?

- It would be beneficial if Clarity were able to produce the report more accurately
 - If the budget was represented in all objectives
 - Meaning the user can display the data how they wish
- Clarity should be able to produce proper forecasting for the budgets as well
 - There is no accuracy in the Estimate to Complete measure within Clarity
 - There is also no resource planning section within Clarity
 - This creates more manual labor for the project manager

Coleman-Cooke, Guy. 31 October. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I am currently in charge of the FI Transversal Tools for APS Electronic Markets
- I do not use clarity often
 - It is used to backfill time and budget at the end of the month
 - There is no value that could be gained within my position

What are some challenges or disappointments that you have with the system?

- Clarity is time consuming, and takes away from my work
- My time is currently focused on JIRA
 - I use the AGILE boards
 - Which acts as the discussion point
 - This creates a burn down chart for me that represents the hot topics, and news feed of my teams work

- The dashboard is the best way to gain an overall sense of the projects actuals and progress

What are some features that you would like to see this system execute?

- There is nothing that I could gain from Clarity, it is just a tool for reporting to upper management
- While I am using JIRA efficiently, it would be beneficial for other teams to gain more experience and training to better use JIRA for their projects

Cable, Alan. 4 November. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I am currently the department coordinator for APS Electronic Markets and FI eCommerce
- I was part of the Lean team for Clarity, and use it daily for my work

What are some challenges or disappointments that you have with the system?

- Being part of the Lean team, it is apparent that most people do not completely understand what Clarity is capable of doing
- Though I use Clarity often for project reporting, it is a very slow tool
 - I think that there are probably better systems that could be used, but Clarity is used throughout BNP thus making it easier to transfer reports throughout departments and locations

What are some features that you would like to see this system execute?

- It would be better if the JIRA tasks were linked directly to the Clarity
 - This would save an employee time for reporting and understanding the requirements of projects more efficiently

Bourget, Mathieu. 4 November. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I am currently working on IRG ETS for FI IT Risk & PnL Systems
- I only use Clarity at the end of the month to track my time sheets
- It is otherwise useless for my day to day work

What are some challenges or disappointments that you have with the system?

- The system is outdated and way too slow
 - It is an old system that is generally overloaded at the end of the month when everyone is trying to update their timesheets
 - It is difficult to record monthly time sheets on every project/milestone/task that you complete after you have finished them all, but it is more difficult to constantly update Clarity timesheets as you finish due to how slow the system is

What are some features that you would like to see this system execute?

- It would be nice to see an updated version of Clarity
 - Clarity is slow and even looks old, it is hard to put effort into something that is giving you nothing in return
- It would also be good to see Clarity automatically updating the timesheets as JIRAs are being completed

Shepherd, Alex. 8 November. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I am currently the head of Transversal Services for FI IT Risk & PnL
- My job is to create the Road Map that depicts the programs and projects throughout the department
 - Most of the information displayed in this road map comes from personal communication, written reports, JIRAs and then Clarity

What are some challenges or disappointments that you have with the system?

- Clarity is supposed to report the information pertinent to the Road Map, although generally the information in the Clarity report is lacking

What are some features that you would like to see this system execute?

- It would be very helpful to be able to accurately use the Clarity reports to create the road map
 - This would save me the time I have to spend speaking to people directly about their project information

Sturdy, Bryan. Personal Interview. 12 November. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I am currently in charge of Risk & PnL Presentation for FI IT
- I use clarity to track the budgets and progress my team is making on our projects

What are some challenges or disappointments that you have with the system?

- The scorecard in Clarity cannot be edited or customized
 - The scorecard is also lacking risks and issues
 - There should be optional pages/reports to choose from

What are some features that you would like to see this system execute?

- It would be very beneficial to have visibility of other Clarity projects
 - This would increase the consistency of project reporting in clarity
 - It would also allow project managers to have some idea of what similar projects budgets are and how they performed, when creating their forecasts or estimates
- There should be a requirement to attend a Clarity training course
 - This would be essential in improving the user experience throughout FI IT and BNP

Appendix D: Secondary Interview Meeting Minutes

Dinh, Julien. Personal Interview. 14 November. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- Currently I am a manager for the FIRST team for Rates in FI IT
- I am currently using JIRAs information displayed in Tableau to track the progress of the progress my teams are making
- What are some challenges or disappointments that you have with the system?
- JIRA does not display the information I am looking for directly, I have to export the data into Tableau

- Tableau gives me an illustration of all projects and the tasks within them throughout my area
 - There are different color boxes for each sub-team
 - The larger the box the more extensive that task is
- This program allows me to observe the data at a higher level, and the dive further into each teams work
- I mostly look at the % of RTBs and CTBs as well as what is happening in London, New York and Asia
- JIRA does not allow the mismatches between parent projects and their corresponding subprojects
- With Tableau I was able to give permissions to anyone I wish, allowing my team to have a better understanding of the overall goal of all projects
- Tableau however is purely for displaying information, it does not perform any data reporting

What are some features that you would like to see this system execute?

- It would be beneficial for JIRA to visually show all the projects and subprojects teams are working on in an organized fashion
- It would be beneficial for JIRA to connect automatically to Clarity, to create an instant update of budget when JIRA tasks are completed
- I would also like to understand how to better capture and represent the data from JIRA

Chesneau, Caroline. Personal Interview. 26 November. 2013.

How does your role within the Fixed Income Information Technology Department work with the system?

- I am currently working on the FIRST team
- I am using Tableau to represent the data from JIRA
 - I am interested in information on head counts on RTB and CTB
 - Requires SQL knowledge, not useful for basic users
 - Does not satisfy my need for a database that shows more complexity , though works sufficiently for the basic JIRA data

- However JIRA does allow for customization

What are some challenges or disappointments that you have with the system?

- There is no flexibility in JIRA
- The team view in JIRA is not specific enough
 - I was interested in mostly making a pivot table which is difficult to provide from this information

What are some features that you would like to see this system execute?

- JIRA needs guidelines and requires maintenance to provide accurate data reporting
- JIRA needs to better represent the progression of tasks within both RTB and CTB
- It would be useful for JIRA to represent the accurate headcounts for each task, rather than being based on the hypothetical 8 hour work day

Guyot, Amaury. Personal Interview. 2 December. 2013.

Why do you think that mapping between the real nature of a project in JIRA and the budget of Clarity are unable to be linked?

- JIRA is used for AGILE development whereas Clarity is used to record and track the budget of a project
- It would be helpful if you could add men in JIRA as a developer

Will you please elaborate on the issues you have with Clarity.

- Clarity is not useful and I do not use it for real work
 - Updating the data manually within Clarity is time consuming
 - Once a project in Clarity is created, it cannot be deleted
 - A Clarity milestone does not represent anything tangible in the projects progress
- If I am not the owner of a project I am not able to add or observe the assignments of progress of other people
 - Clarity requires you to manually add people to the budget through project management and office
 - It is difficult to know if it is possible for other team members to help with your project
 - It would be beneficial to observe other/past projects to gain a sense of the budget and process for implementing a similar project

Clayton, Jeremy. Personal Interview. 2 December. 2013.

How are you using SQL queries for reporting?

- For interrogating hours worked for an entire week, grouped by booking line field
 - Then the hours worked are manually added into Clarity
 - There is really no need for Clarity

How is the environment field in clarity being misused?

- There is a lack of consistency in reporting, when you are working for another team
 - Currently we are logging this information in the environment field, because we had no other use for it

Are you currently using any forecasting or estimate to complete measure for your work?

- As a team member it is not my job to manage the work load, so no
- Clarity is made for a 40 hour work week, which is not useful when looking at budget
 - Realistically most people work more than 40 hours a week

Wang, Jue. Personal Interview. 2 December. 2013.

How are you using Teamcity or Fisheye for reporting?

- There are tools that allows all team members to upload the code that they are currently working on
 - Automatically updates
 - Checks the code for SVN and builds
 - JIRA links to SVN providing if the JIRA is successful or accurate

Pemrick, Julian. Personal Interview. 2 December, 2013.

What are the issues you have with Clarity?

- Clarity produces poor data that I have tried to use
- Program managers cannot update the projects in Clarity
 - The budgets are locked down
 - If a project manager wants to make a change in their projects budget they must go through the project office
 - Requests to the project office are usually unfulfilled making the Clarity budget very misleading

- Budget allocation and forecasting the projects efforts against resources are slow in updating
 - It is almost impossible to be accurate in allocating or cutting budgets within projects
- Though Clarity is a more sophisticated tool than Project Zoo, it is not implemented correctly throughout FI IT
 - Clarity should be used for more than just filling in for a project card
- Analyzing data with Business Objects is hopeless
 - There is no ability at the task level – how much have I spent compared to my forecast
 - I would like to be able to make more raw reporting, such as including an allocation tab in a pivot table
- It would be very beneficial to have a linkage between Clarity and JIRA
 - If there were a place to refer your JIRA in Clarity

Concerning the Clarity Project Card, will you elaborate on the recommendations you have given in the survey.

- There should be more education on how to report and use ETC throughout projects and their reports
- Clarity needs to represent an accurate budget
 - 8 hour Man Days are not a true representation of the REAL budget
- The Gantt Chart would be better represented in the task level of a project
 - Project Managers are generally more interested in the specific budget allocation of tasks
 - Tasks are relevant to forecasting the budget of a project
 - By viewing the Clarity of another project would make forecasting easier

Smyth, Paul. Telephone Interview. 3 December. 2013.

Why do you believe the project financial component of the Project Card is unnecessary?

- With Project Register the numbers were all there and accurate
- The financials in m€ do not help on a day to day basis
- It does not represent what the project team is doing to stay in budget.
- This component would be better represented in man days or estimate to complete

Why do you believe the project governance component of the Project Car is essential?

- This creates the status view of the project
- All the information in this component is necessary when reporting at the steering committee
- It is important to understand who the stakeholders
 - Often this constantly changes, and some people never understand the people effected by the project
 - It would be useful to show past and present stakeholders

How are you currently using the Estimate to Complete measure?

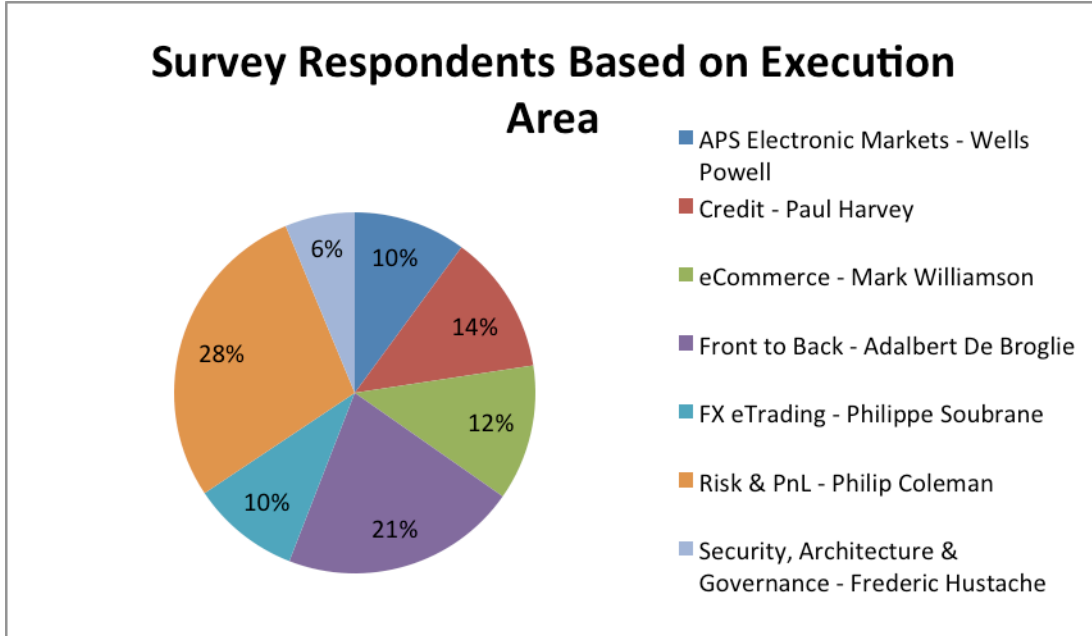
- This is done logically and by human nature
 - It is impossible to have a determined formula for the estimate to complete for all projects
- It is important for a project member to constantly look at where they are, what have they done and what is their current ETC
 - It would be interesting to view the changes in the ETC throughout the project
- However this measure is inaccurate due the budget representation of 8 hour man days
 - There should be a representation of tangible hours against real hours

Why do you think the Gantt chart is essential?

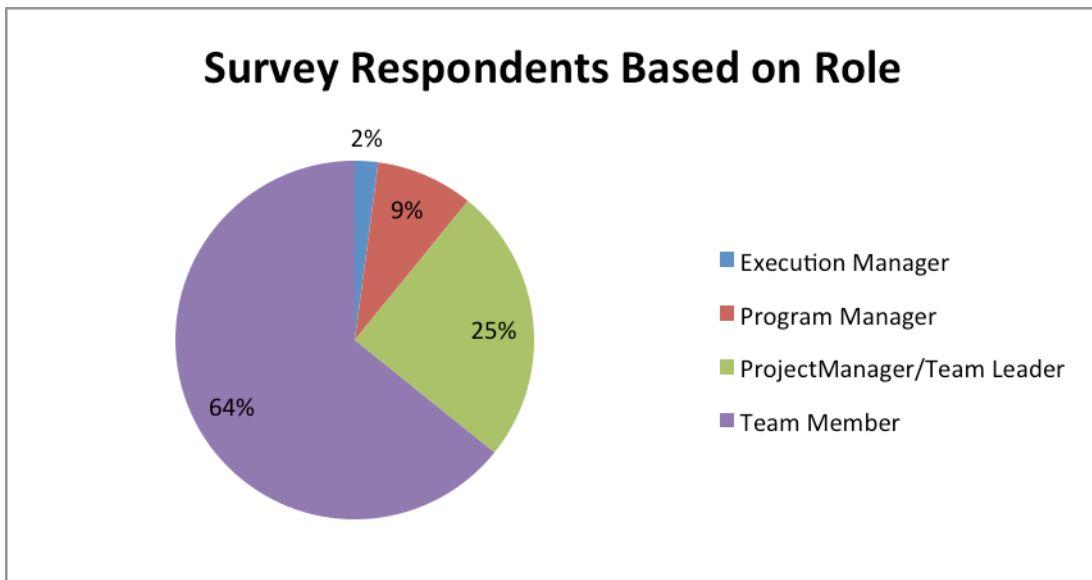
- This chart is a great representation of how things are going and what is coming up for the project
- It would be useful to represent this chart in terms of the project and task level

Appendix E: Breakdown of Survey Respondents

Question 1: Which execution area of FI IT are you part of?

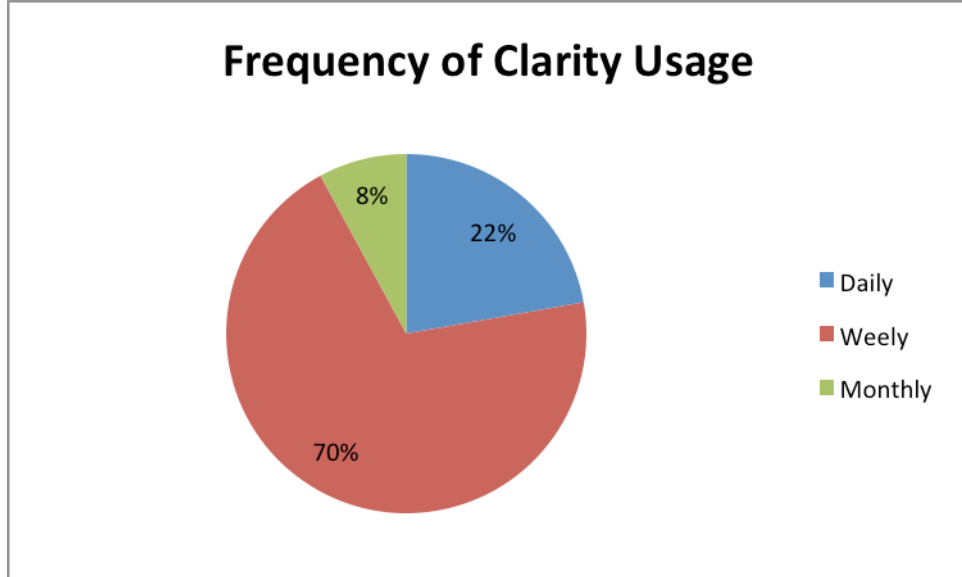


Question 2: Which of the following best describes your role?



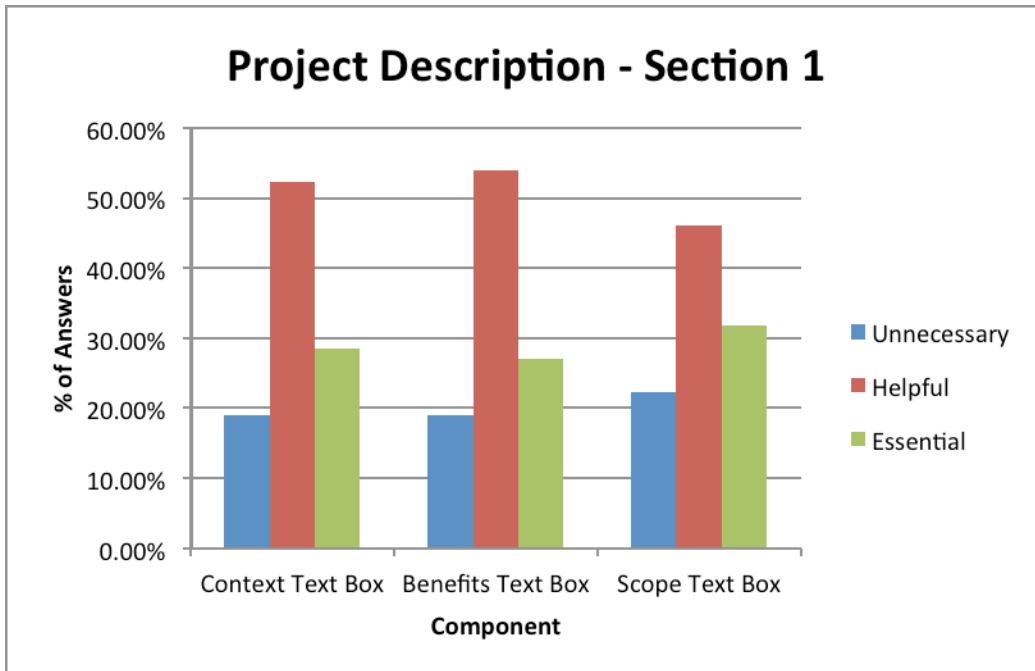
Appendix F: Frequency of Clarity Usage

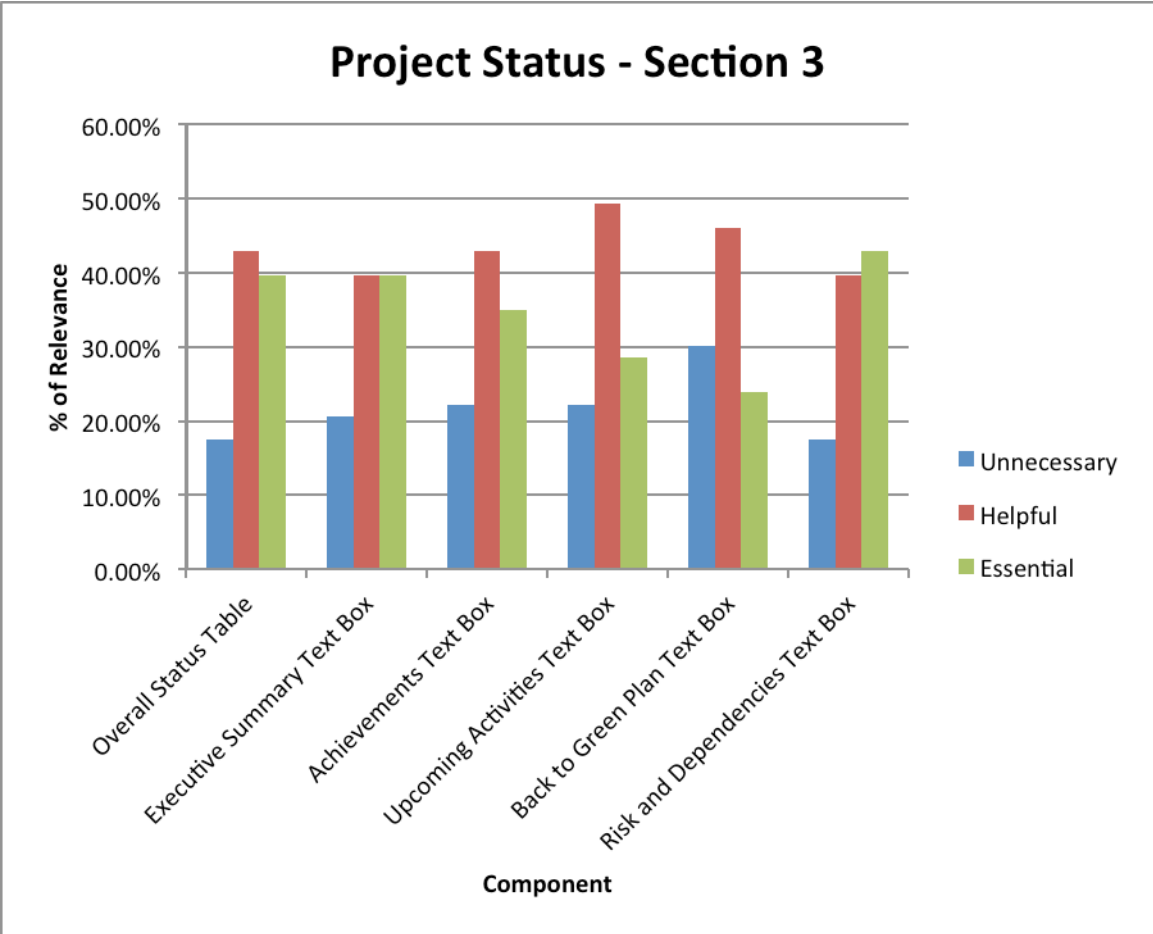
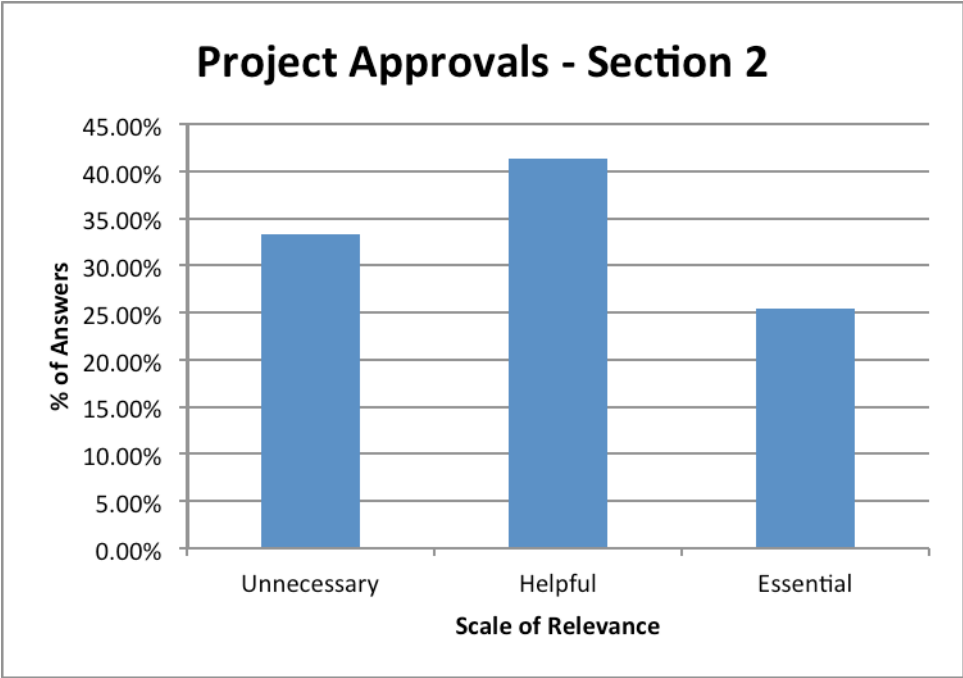
Question 3: How often do you use Clarity?

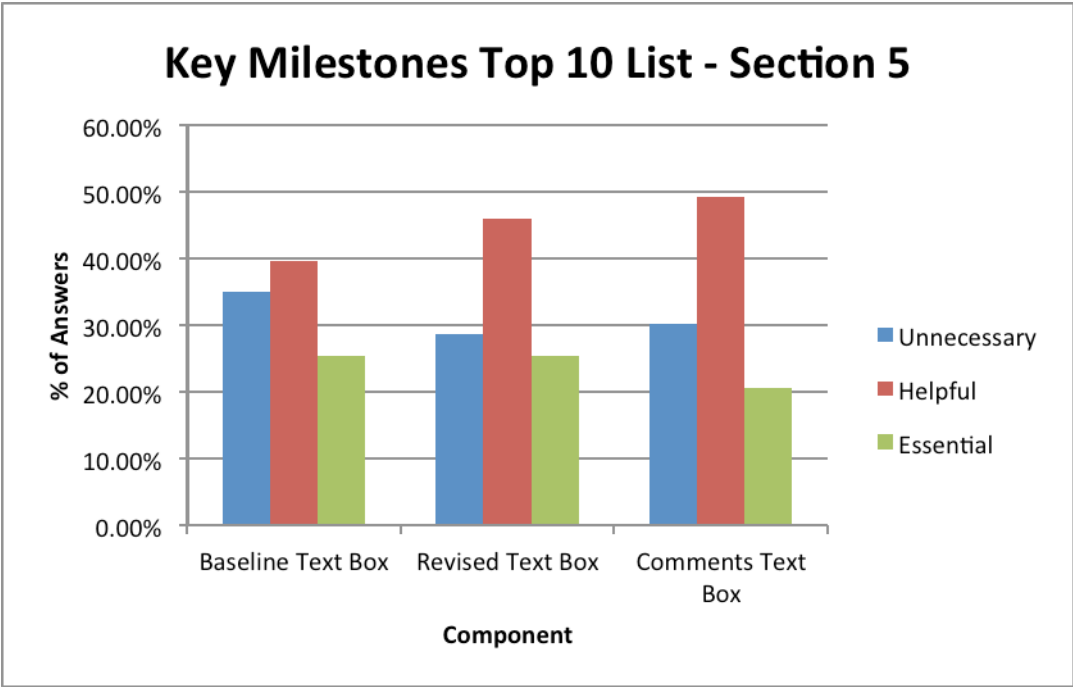
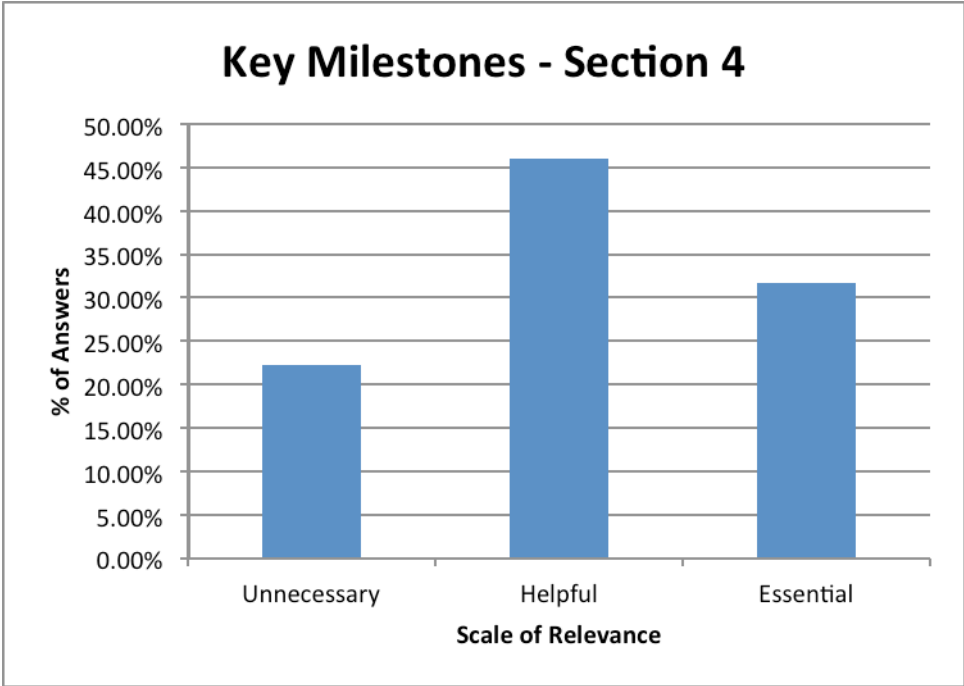


Appendix G: Ratings of Project Card Components

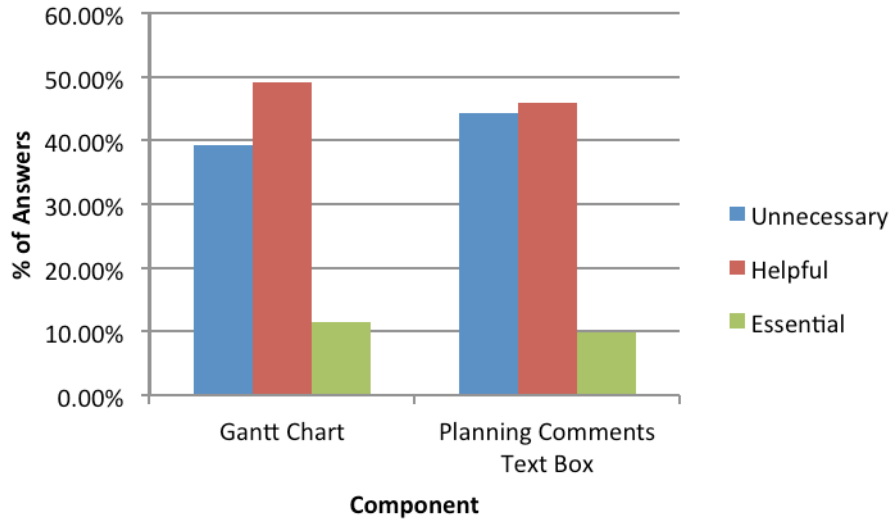
Questions 4-11: For reporting with the Clarity Project Card, how relevant do you find the following components? Please reference the numbered sections in the example of the Clarity Project Card attached to the email from Phil Coleman.



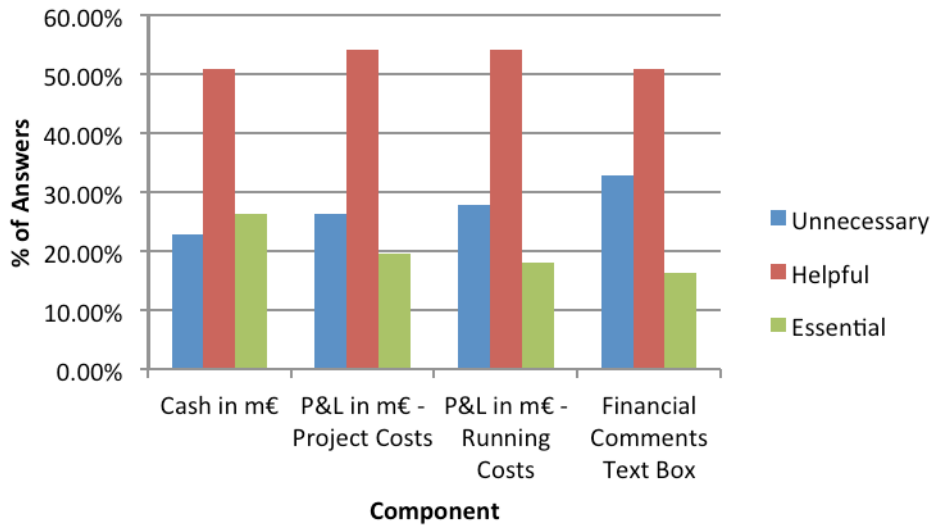


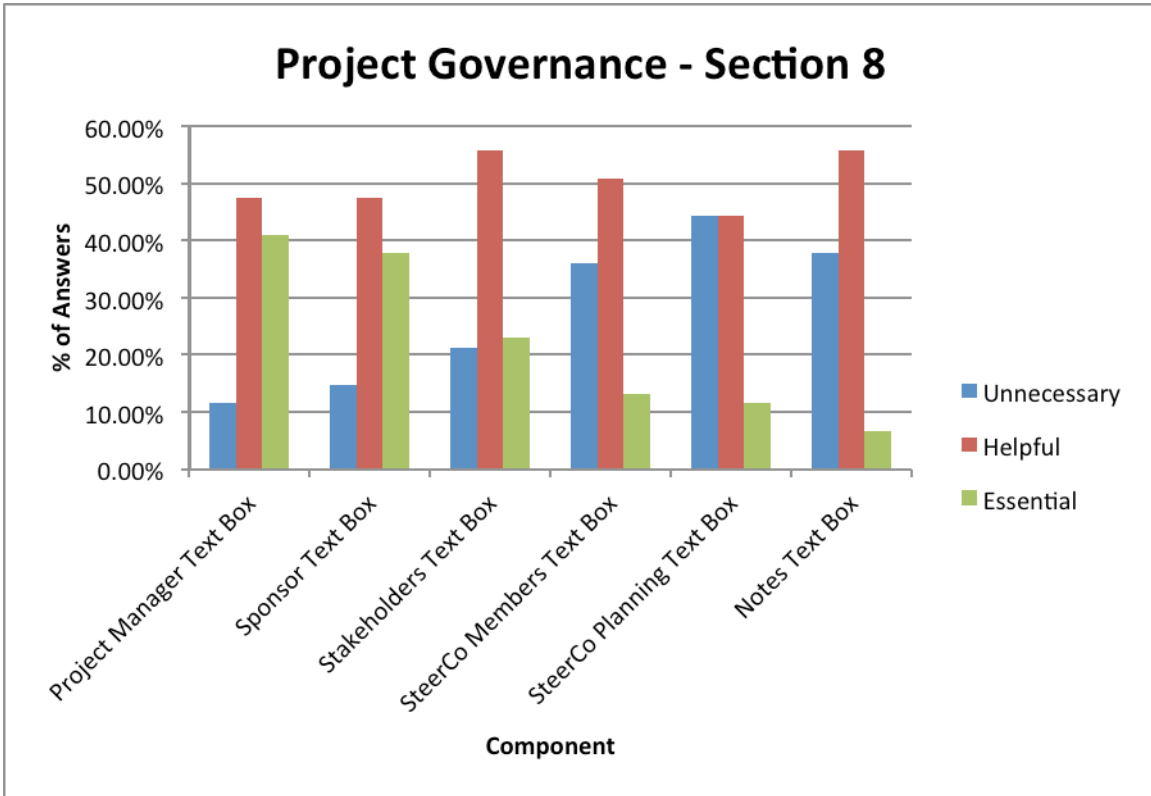


Project Plan - Section 6



Project Financials - Section 7





Appendix H: Ratings of Project Card Components based on Role

Acronyms:

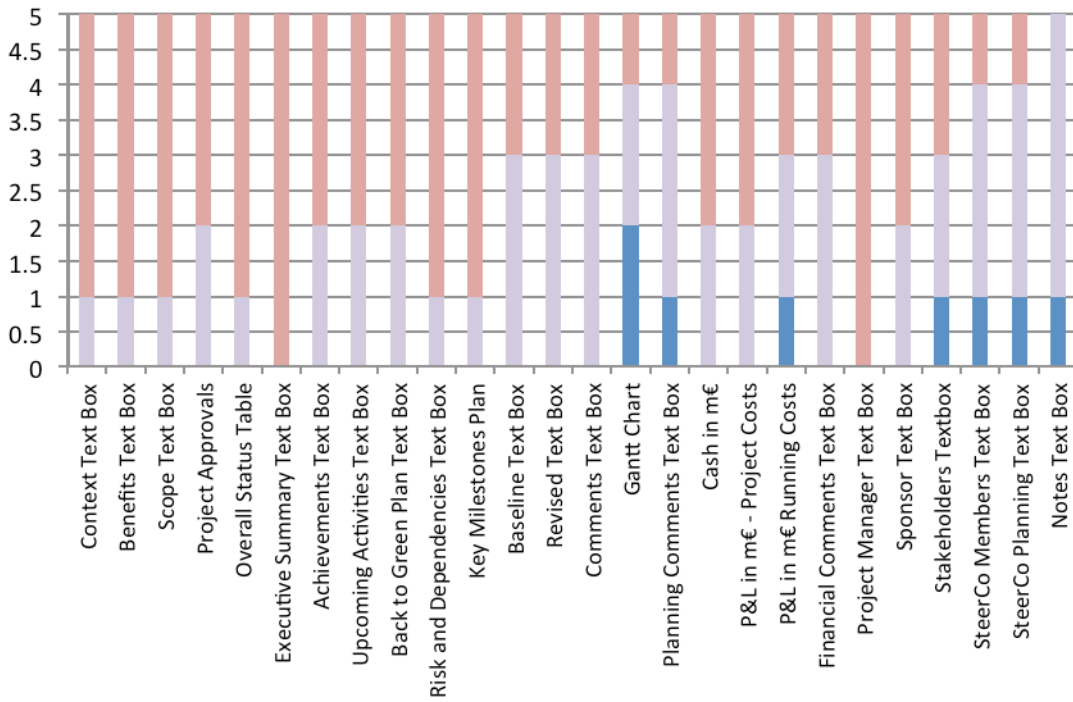
EM = Execution Manager

PM = Program Manager

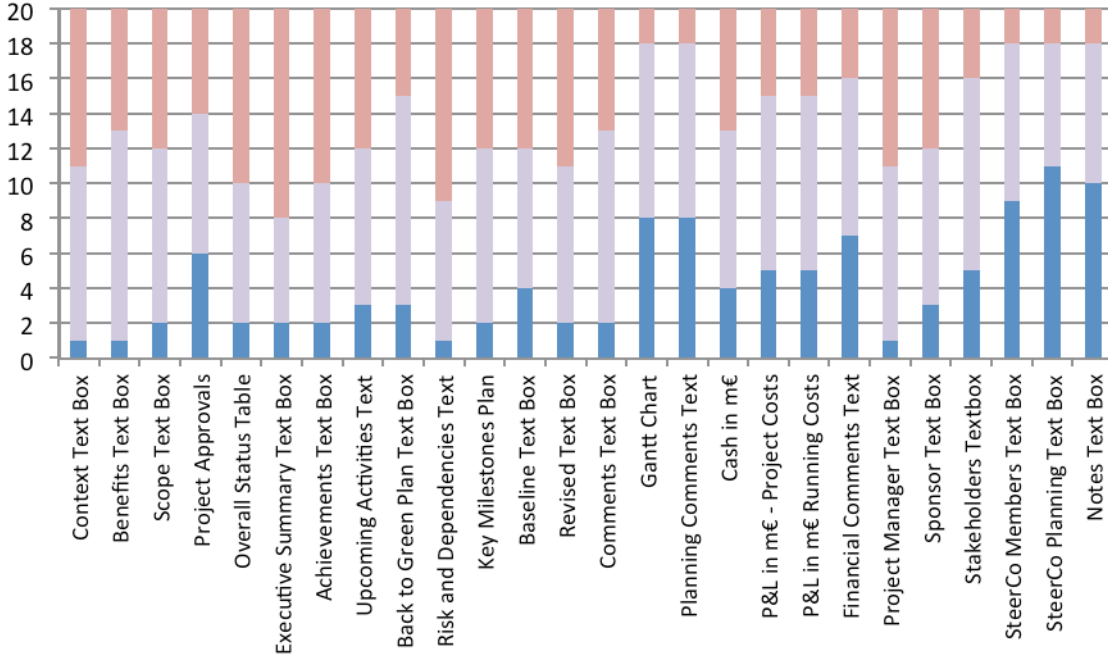
PM/TL = Project Manager/Team Leader

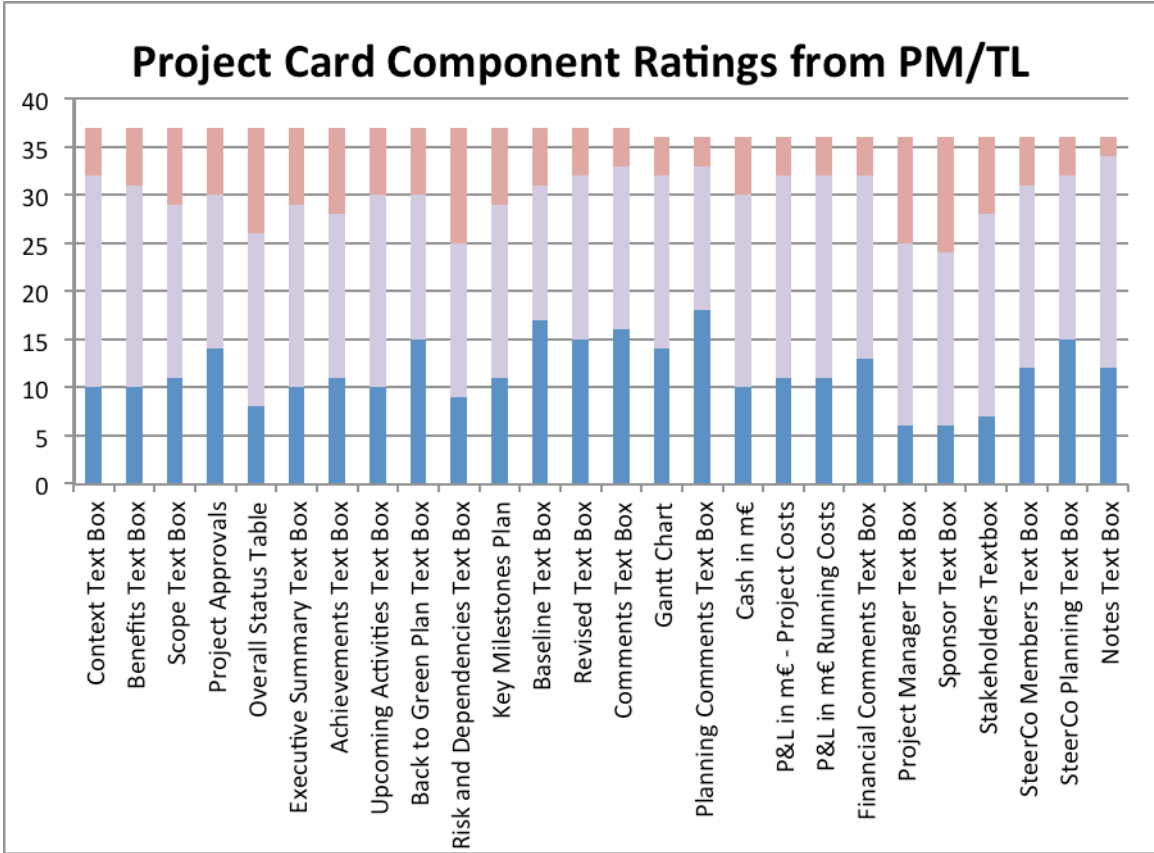
- Essential
- Helpful
- Unnecessary

Project Card Component Ratings from EM



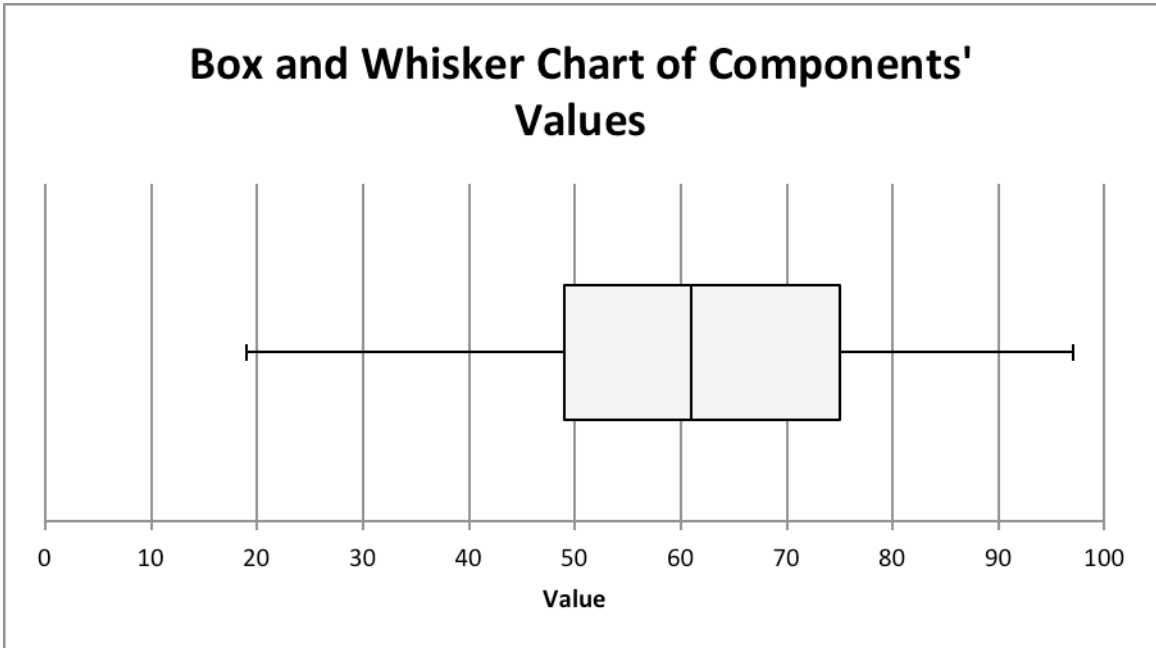
Project Card Component Ratings from PM





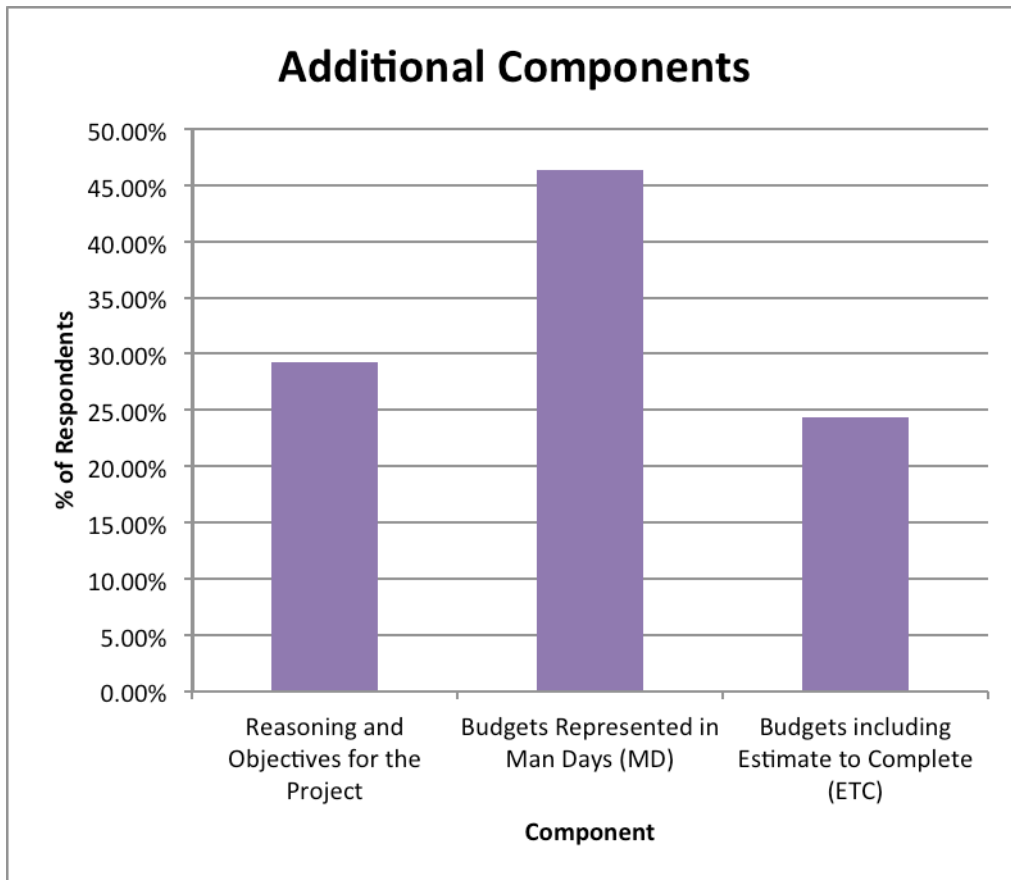
Appendix I: Box and Whisker Chart of Project Card Components

The ratings are given a weight each to calculate a value for each component. The higher the number represents more value in the component. The weights are Unnecessary = -1, Helpful = 1, and Essential = 3. A box and whisker chart is made using the values calculated from the weights.



Appendix J: Responses on Potential Additional Project Card Components

Question 12: Which of the following components would you like to see on the Clarity Project Card?



Appendix K: Suggested Additional Components

Question 13: Do you have any suggestions for additional components on the Clarity Project Card?

- 1- Cash views (section 7) can be potentially useful, but never likely to be 100% implementable. Suggest removing until resolved. Governance page: only Programs have steerings so limited value. Do NOT want ETC. Too much effort to manage, Forecast works just fine.
- 2- I have marked Project Financials as 'Unnecessary' because they don't seem to work in Clarity. They should work and should be an essential part of our management process.
- 3- Regional split - we have resources in 4 locations and 1 FTE in Mumbai is very different to 1 FTE in London
- 4- Proper display of all the risks and issues (not limited to an artificial number)
Additional display of the financials according to CIB CIO Monthly Reporting format
- 5- Usefulness/effectiveness of the project card is determined by the quality of the data in the system

- 6- SSO Fast to access (bookmark, plus loading) Easy to print and copy-paste Easy editing and correction, version control
- 7- This is the first time I looked at the clarity project card. Unless managers / sponsors look at and use (test drive) the data properly then this exercise has limited value. It is difficult for me to give good feedback on the usefulness of data when I have never seen some of this data (e.g. cash budget per project).
- 8- Evolution of budget i.e. what was the budget for the same project in previous years, so we can see the trend.
- 9- Cost benefit of project - i.e. It will save x amount and compare that with the costs of the project.
- 10- Just need it to work the project card generation to work in a consistent way. That is, when the project card is run it will accurately reflect the information entered and be reviewed regularly by all levels of management with a regular feedback loop.
- 11- Forecast (YTD actuals + forecast) should be the most relevant data reported. However, it is hard to judge the project card because I never use it. The data quality in Clarity is so poor it's not practical to use.
- 12- Risks & Issues (critical/for escalation only - as flagged in Clarity). Ability to summarize a number of sub-projects in a single Project Card. Estimate to Complete.

Appendix L: Overall Status for Rates Trading

3. Overall Status for Rates Trading

| Rates Risk and PnL Programme Board | | | | | | | | | | | |
|------------------------------------|-------------|---------------|---------------|----------|-------|---------|--------------------|--------------------|---------|---------|------|
| Trend | | Cost & Effort | Schedule | Scope | Risk | Quality | Sponsor Perception | Budget | Actuals | ETC | |
| A | | A | R | G | A | G | A | 128.40 | 80.00 | 40.80 | |
| Project/Team | Target Date | Revised date | Cost & Effort | Schedule | Scope | Risk | Quality | Sponsor Perception | Budget | Actuals | ETC |
| Reflex Blotter Merge | Nov 13 | Dec 14 | G | R | G | R | G | G | 4.67 | 2.1 | 2.6 |
| PnL Explain (non BAU) | Oct 13 | Oct 13 | R | A | G | A | G | G | 3.90 | 0.73 | 3.12 |
| MESA | Oct 13 | Jan 14 | A | R | A | R | A | A | 7.47 | 2.65 | 4.79 |
| Kew System Integration | Dec 13 | Dec 13 | G | R | G | G | G | A | 3.00 | 0.67 | 2.33 |
| MAD Trading Platform | Sep 13 | Dec 13 | G | G | G | G | G | G | 0.5 | 0.2 | 0.3 |
| MAD GPU project | Nov 13 | Nov 13 | G | G | G | G | G | G | 4.00 | 3.32 | 0.68 |
| PAGE OTC Phase 1 | | | G | A | G | A | G | A | 3.65 | 2.35 | 1.30 |
| Rapide | | | G | A | G | A | G | G | 1.2 | 0.75 | 0.46 |
| RAD Platform | | | G | G | G | G | G | G | 2 | 0.89 | 1.11 |
| Completed projects | | | | | | | | | 4.60 | 3.90 | - |
| Project envelope | | | | | | | | | 6.29 | - | - |
| Total Projects | | | | | | | | 43.08 | 17.59 | 16.69 | |
| Total Management | | | | | | | | 5.50 | 4.13 | 1.38 | |
| Total Maintenance and Enhancements | | | | | | | | 36.02 | 26.65 | 9.65 | |
| Total (CTB) | | | | | | | | 82.8 | 48.21 | 27.78 | |
| Bug Fixing (RTB) | | | | | | | | 2.35 | 0.95 | 1.07 | |
| Total Support (RTB) | | | | | | | | 43.75 | 32.01 | 10.94 | |
| Total (RTB) | | | | | | | | 48.8 | 33.78 | 12.81 | |



Appendix M: Explanations for not using the ETC.

Question 19: Please explain why you do not use ETC.

- 1- Full Year Forecasts (FYF) versus the budget and actuals for the year is what sponsors care about
- 2- Don't use project cards at all, my answers are hypothetical
- 3- Haven't had time to look at it
- 4- I don't manage projects, only steering committee level
- 5- I see Clarity as a reporting tool and not a tool for actually managing the project. As the Project Manager I will use a mixture of MS Project and Spreadsheets to manage/control the project. I already know the details that are being posted in Clarity (I'm the one posting them). So I don't actually need to see any of the details in Clarity – they are purely there so that other interested parties can get an idea of the overall “health” of the project. I suspect that very few of the interested parties, apart from the program manager, actually look at Clarity in any detail as they get updated as they get updated in the Monthly Progress meetings.
- 6- I am the consumer of the data, so I do use it in that sense however I am not the one entering the data
- 7- There seems to be odd defaulting behavior that I do not understand
- 8- All of the above!
- 9- I asked about ETC in the Clarity training but was told it was not used
- 10- All of the above.
- 11- Nobody reads it
- 12- It is critical, but is not included in any reporting so there is no point. Also the method of entry I have seen in Clarity is v cumbersome

Appendix N: How employees are currently using ETC.

Question 15: How are you currently calculating and using ETC?

- 1- A value judgment of the outstanding work as a % of the original work. On testing activities with many test cases this is fairly exact. For analysis and Dev it is hard to be 100% objective/precise.
- 2- Based on Estimations
- 3- I am not currently
- 4- Is this the Man Days (MD) efforts we put in for the forecast? Apparently not according to (AC). I don't think we are using this in Credit.
- 5- Manually on reporting slides

6- Not using ETC

Appendix O: How ETC can or cannot be used more accurately.

Question 18: Please explain why you think ETC can or cannot be used more accurately.

- 1- I don't think we are using this in Credit
- 2- Not using ETC
- 3- I think tasks need to be estimated using ETC and we can then track progress against these estimates
- 4- And that "The biggest problem with Clarity is that we don't track actual time spent. We track the mythical 8 hour day. Very few people in my world work that few hours. Thus we have no record of what effort anything really took. Thus trying to estimate real remaining effort has no sound historical basis. We should start by tracking all real effort (excess hours, weekends etc) to know what it really takes to deliver our tasks and projects. From such a sound historical base we could build metrics to help with future project management estimates."

Appendix P: Connections between JIRA and Clarity

Question 22: How are you currently connecting your JIRAs to Clarity?

- 1- Not relevant to an execution manager, I consume the output rather than use the system
- 2- Time is allocated to both
- 3- Web
- 4- JIRAs are not directly linked to Clarity. Clarity data is entered manually using estimates total time spent over the week
- 5- JIRA is used to manage AGILE development whereas Clarity model is essentially waterfall, there are therefore few if no links between both, except that we try to have a Clarity task related to the current JIRA project
- 6- Group allocation of time per stream not JIRA
- 7- I'm linking my JIRAs to Clarity manually. Each JIRA refers to the Clarity line which has to be used to book time against

- 8- SQL Query in reporting DB to extract work logs
- 9- I have no requirement to connect JIRAs to Clarity
- 10- Each JIRA will go to a particular Clarity line but the connection is not well made at present.
- 11- I try to group JIRAs to match lines in Clarity, there is no direct link.
- 12- Manually(i.e. I read data from JIRA and type numbers into Clarity)
- 13- Internet Explorer 9
- 14- We are not, we have been given no information on how this could be achieved
- 15- CDP Clarity line on the JIRA (populated by CDP BA's)
- 16- Clarity ref on the JIRA
- 17- I don't think we are. It would be managed by individual project managers but I don't think most of my projects do this. If the purpose is to manage resource effort, that would rely on people booking all their time to JIRA tasks – I'm not convinced many people do that
- 18- Nothing specific. I sometimes use JIRA to remind me what I have worked on, and then enter the time spent on those JIRAs into Clarity
- 19- Entering hours under Projects Task
- 20- Based on project to budget allocation/epic
- 21- Why would I need to do this?
- 22- Don't think they're connected...maybe the manager does this...
- 23- Performing regression testing for DVS and Nexus
- 24- Under section fix version
- 25- Manual entry
- 26- Chrome browser and Internet Explorer
- 27- Manually/in someone else's head
- 28- Web interface
- 29- SQP script and manually
- 30- I am not. Team PM creates Clarity items at a much high level than individual JIRAs
- 31- We don't. We have to enter manually the content

- 32- Didn't think there was any connection between JIRAs and Clarity
- 33- Manually
- 34- Didn't know it was possible
- 35- Via Clarity number added to JIRA
- 36- Through a configured spreadsheet that is querying the JIRA database
- 37- No direct connection. JIRA projects mirror Clarity lines. Time worked is logged against JIRAs and this is also recorded manually in Clarity
- 38- JAG projects are being managed by DEV TL/project manager. I believe there is a disconnection between Clarity and JIRA.
- 39- Pre filled entry in Clarity for weekly timesheet
- 40- Not sure that I am, completing work log on JIRA
- 41- No direct correlation, most JIRAs fit into 1 to 2 Clarity lines
- 42- Loosely, via a 'programme' field in JIRA that indicates-but does not explicitly state-the appropriate Clarity line
- 43- I'm not, but I will look into how we can do this in a meaningful way
- 44- Time spent on each environment
- 45- I am not clear what the question means. I only have access to Clarity as a way to input my timesheets. I was not aware of the project capabilities of Clarity until Phil Coleman's email and I have checked and I have no access to projects
- 46- As-hoc, no formal method across my teams
- 47- Custom fields and JIRA db queries. Apparently other teams in the bank have managed to get a direct link, but we were told we can't have that.
- 48- Manually – occasionally pulling data from JIRA by a query, but always manually entering into Clarity
- 49- Independent of each other, JIRA tasks aren't big enough to be a project
- 50- Very manual process requiring the understanding of someone involved in each project
- 51- Not doing it. Not possible and not relevant as per the available projects I've got in Clarity

- 52- Web and database
- 53- Tasks in Clarity associated with JIRA items
- 54- Not yet but will start soon
- 55- Manually
- 56- Not at the moment, ideally we would
- 57- I create a task in Clarity for each Release in JIRA all data entry is manual e.g. double entry. I have heard there are add-ons to integrate the two – would be good to make this a standard
- 58- I have a project in Clarity that I bill my time to. My JIRAs are related to that project
- 59- Not connecting at all. I expect this is done manually by our team leader/manager
- 60- Not yet
- 61- Use time booked in JIRA to fill in Clarity
- 62- JIRAs belong to a specific project. Clarity records time spent per given project
- 63- They can be connected?
- 64- I log all time in Clarity as “IRG Documentation”
- 65- Every JIRA has a mandatory field for Clarity line to book task to
- 66- Web based
- 67- Through a Clarity code field
- 68- We usually mark each JIRA with an Epic/Theme corresponding to the booking line that should be used for time booked against it
- 69- There is a spreadsheet displaying JIRA time entries. These are manually entered into Clarity according to closest matching project.
- 70- This is something I’ve never had to do
- 71- Manually, I look at hours worked in JIRA and complete these in Clarity at the end of the week
- 72- Book time in Clarity based on Clarity line in JIRA
- 73- Clarity line field
- 74- Not using JIRA

75- Pasting in URL

Appendix Q: External reporting tools

Question 24: Please list any external reporting tools you use, if applicable.

- 1- There are already some reports which my manager in APS Credit and Rates tool use.
- 2- I would like to use excel.
<https://marketplace.atlassian.com/plugins/pl.com.tt.JIRA.plugin.excel2.JIRA>
- 3- Sometimes export to excel, Excel has many powerful features
- 4- Currently using JIRAClient, to aid JIRA management. It only has basic reporting functionality
- 5- Homemade MIS report that links eComm high level JIRA (workstack) with relevant team JIRAs. This allows a cross team view of projects
- 6- Quality index
- 7- Custom queries
- 8- Into Excel for management reporting
- 9- SQL Queries for extracting various stats E whiteboards
- 10- eWhiteboard (developed in-house)
- 11- Excel. Because non-IT users have no access to JIRA or cannot use it effectively
- 12- Written our own DB extract tool. Extracts logged time against JIRA number and saves it to a separate db. This is effectively a snapshot at a particular time which can be saved (and reviewed). JIRA can't do this.
- 13- Standardized reporting from JIRA may be useful and some teams use some of the AGILE add-ins for producing burn-down charts etc. Not sure what else is available.
- 14- Spreadsheet for sprint planning and burn down charts
- 15- We use a script to extract data from the JIRA database.
- 16- <http://fxintelligence.cib.echonet/Reports/>
- 17- Quality Center
- 18- SVN – add JIRA reference in details

- 19- JIRA query and Rapid Board
- 20- Excel, PowerPoint.
- 21- Reporting Service PowerPivot Tableau Greenhopper
- 22- KPI Spreadsheet
- 23- Driven from a JIRA database query
- 24- We have wiki release pages that display JIRA data
- 25- Excel/VBA tool used by the team to collect the time tracking from JIRA in time sheet.
- 26- Business Objects
- 27- A spreadsheet to pull out time booked
- 28- Excel spreadsheet to show some story point based kpi
- 29- FXIntelligence to run reports
- 30- Use JIRA estimates to plan
- 31- Excel Spreadsheet – I export JIRA data to a spreadsheet for ease of use
- 32- I have a number of Excel macros to format Clarity output, group JIRAs by Epic and handle external prioritization and user info
- 33- Project summary spreadsheet
- 34- Greenhopper
- 35- None on JIRA BO for Clarity
- 36- Excel spreadsheets to sum effort, days worked on a release / sprint
- 37- Weekly prioritization meetings and bi monthly steerings are analyzed in Excel and or PowerPoint downloaded from JIRA. This is mainly done by the team manager. Clarity is used to maintain records of the teams on each project but this is often not detailed enough so I maintain a more detailed personal record
- 38- My teams often use Excel to supplement JIRA data
- 39- We have custom build spreadsheets that pull the data out of JIRA database
- 40- Excel pivot – developed in team
- 41- Business Objects + Excel

- 42- Microsoft reporting services. JIRA agile tools. We can create our own views and look at a lower level of granularity. Reports are more appropriate for whiteboard/standups
- 43- SQL developer, using JIRA data to track time on daily tasks
- 44- Use spreadsheets to extract and analyze JIRA time spent and work load
- 45- FXIntelligence report
- 46- Greenhopper and a new workstack JIRA used to control the pipeline of work, communication with the business, BA tasks and Mumbai effectiveness
- 47- Microsoft Project, Excel
- 48- SQP Queries against the JIRA database
- 49- Microsoft Project, Excel
- 50- Excel used to format extracts from JIRA
- 51- Manual extraction of JIRA data using a SQL query against the JIRA db. This is done for the purpose of matching my time recorded on JIRAs against my SkillStream timesheet data
- 52- Spreadsheet with macro to calculate time spent on JIRA. The issue in JIRA is that I cannot select the period I want to look at so if I have a JIRA that runs longer than one iteration, I need to use a macro to ensure I do not double count the time spent.
- 53- In-house developed reporting – <http://ecomm-reporting.dev.echonet/Home/Projects>
- 54- We developed some tools using Excel to do some project management based on some queries on JIRA.
- 55- SVN
- 56- TeamCity Fisheye

Appendix R: Additional Feedback

Question 25: Please leave any additional feedback or comments pertaining.

- 1- Please let me know when I can use Excel to manage JIRAs
- 2- I am not directly involved in development so I do not use DEV JIRAs, I do use PO JIRA to request Clarity changes

- 3- Clarity structure does not reflect an Agile development model, any mapping will be between the real nature of the project in JIRA and the budget nature of Clarity is and will remain incomplete
- 4- Please liaise with Marion Chomarrat in F2B who is already working on this
- 5- Would be great to have Clarity automatically update when logging time in JIRA
- 6- A unified way of recording Clarity booking lines in JIRA would help (using the environment field that many teams use is a bit of an abuse of the field)
- 7- This survey needs to ascertain whether I am responding as a viewer of the Project Card of the creator of a card. The response to each question could then be different. Most of the work we do are rolling programmes of small and medium enhancements (less than 100 days) rather than projects, whereas the project card – and response to the survey questions – is geared solely toward reporting on “big” projects. We would struggle to complete it every week/month/whenever
- 8- Please don't link JIRA to Clarity. We have thousands of JIRAs and it is already hard enough to manage. Clarity would be vastly more useful if it was properly global. Clarity is a pig to use. Also, I would say that in general it is too locked down – I can't see all the projects my team is working on if I haven't been added to the delegate list (easy oversight). In fact, I think I should be able to see all projects in Phil's area without having to specially request permission. I'm not sure how it will work across years yet – that will be interesting. Also, cross-team projects are interesting – not everyone is keen to allow people to book time to cross-team projects, so I'd like more of an understanding on how that will work
- 9- I no longer use JIRA directly to manage my projects – each of my project managers use JIRA for their projects. So Qs 20-24 were not directly relevant to me. On Qs4 -11 I don't think “Unnecessary, Helpful, or Essential” are necessarily the best question/classification. Most fields are helpful on the report. However many fields have annoying limitations and this survey

doesn't really capture that. Perhaps an additional category of "Poorly Implemented" could have been added. For example: *text in some boxes (e.g. executive summary) is cut-off on the last line *the GANNT display is all but unreadable in my auto-generated project card because text from one item runs over the other items – the text could stretch across each bar *the financials don't work at all – presumably because the budget isn't in Clarity due to the project being an exceptional project * the stakeholders field is useless to me because I can't find anywhere how to put the stakeholders into Clarity

- 10- There is no point having granular data if the underlying data itself is inaccurate. This encourages poor decision making. Active Project Management of time boxed, pre-defined tasked is highly desirable for inexperienced or mixed skill teams, or where the sponsor is clear on the requirement and able to define it appropriately. However, our business is fragmented across multiple desks meaning a single desk's requirement risks adding additional complexity managing specific desk implementations. To mitigate this, we employ experienced developers to code against existing paradigms. This means a lot of the 'analysis' is performed by DEV as part of the development task. Separating out the two tasks introduces overhead and encourages short-cuts to meet uninformed estimates. This again introduces overhead, revisiting the work in a subsequent iteration or otherwise working around an sub optimal implementation. If a team is performing well, it should be left to continue to flourish rather than pushed into a one-size fits all PM approach. Better to concentrate efforts on identifying team performance first.
- 11- This survey does not capture people who are not using JIRA, I selected monthly but I would like to select never.
- 12- Clarity is very clunky. Really strange around end and beginning of month. Also we should use single sign on for all web apps. Thanks.
- 13- Current process of booking time in JIRA and Clarity are manual processes – difficult to identify the time booked in JIRA – quite time consuming

- 14- I would be surprised if any data in Clarity is accurate enough to spend any time reporting on – let alone acting on
- 15- The focus of the questions was heavily biased towards Clarity. It is not something I actively use to manage a project, and it seems unwieldy and not very helpful. JIRA, on the other hand, is very useful and does just what we want. So more JIRA, less Clarity please!
- 16- You didn't mention the lack of link between the holidays/PeopleSoft and Clarity/JIRA to help with capacity planning. I am interested to know how we can make the management toolset work better for us and maybe help force some more sponsor engagement on projects.
- 17- Linking JIRA to Clarity would be pointless
- 18- I think your survey is mainly aimed at a team or project managers. Having been both in this bank I think there is a real value in making this level of reporting available throughout the teams so they can see how their work is presented in a wider context
- 19- My "Helpful" assessment for various fields in the first section is mainly based on yet-to-be-proven future use of project cards, and not backed up by current experience. Details project planning with Gantt charts etc. Based on Clarity inputs alone is of very limited value, and will not be able to replace external PM tools. There are too many unresolved granularity issues with project setup and governance.
- 20- What is the point for me to enter accurate information in Clarity when my manager reviews and sometimes changes my reporting in order to fit his budget? Anyway and direct link from JIRA to Clarity would be nice if not too time consuming/complicated for us to use
- 21- The issue with Clarity is that it's a poor tool to use not that the information isn't useful
- 22- Would be nice if there was a proper link from Clarity to JIRA
- 23- Clarity could be very useful. PMs team leaders and Program Mangers do not have sufficient control over the data. Having to request PO to make most

changes, rather than doing them yourself is bureaucratic and strongly discourages use. It is a real problem that Clarity forecasts are locked for months of the year –PMs should be updating these on a weekly basis so that resource managers have visibility on recruitment needs, and can use Clarity to plan staff increase/decreases

24- I would like to have a tool to link JIRA with Clarity. Entering time in both systems is time consuming and a waste. If there are tools to do it, please let me know!

25- This is very relevant work. We have there two great tools, but they have not been optimized for efficiency. Therefore people avoid using them and the benefits of the investment so far are not being realized. And we have not yet covered SharePoint as a delivery tool. With a small amount of intelligent integration work, large amounts of user effort (waste) could be eliminated to spend on value-add work. In the process, there would be a massive improvement in the transparency and visibility of plans and work being done – the bonus is the info could be real-time and paperless, and accessible globally

26- Clarity is a total waste of time for us

27- Need to upgrade JIRA version to take advantage of new features

28- BNP should define a clear workflow process for IT. Interaction between team for JIRA is poor. Sometimes, you have an issue, you open a JIRA, assign it to a team, the team answers, is not our code but a third lib, please close the JIRA and raise another JIRA to this team, and so on. Lot of time. We should a central point to create a JIRA, edit it to move it to another team.

29- I've used to complete my project status each month, but since the beginning of this year I've given up doing this because nobody seems to use them (certainly I've had no complaints). The same goes for project cards too – in fact I've never used these and I can't see a demand for them on my project. Of course we still report to our sponsors but they've never asked for content to be presented to them using Clarity features.