THE RIO TINTO ALUMINIUM WAY TO PROJECT PORTFOLIO MANAGEMENT: A LOOK AT HOW RIO TINTO ALUMINIUM ISAL MANAGES ITS PROJECT PORFTOLIO, KEY TAKEAWAYS AND DRAWBACKS

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ABSTRACT

Project Portfolio Management (PPM) has grown in popularity in the recent decades. More and more companies have realized the benefits of PPM when it comes to selecting projects with limited resources and relevance to company strategy. Different portfolio management systems have been developed to fit the needs of different companies. One of those companies is Rio Tinto Aluminium (RTA). This paper studies the RTA PPM system that has been in development in recent years. The RTA PPM consists of two well know methods, strategic buckets and stage-gate. This paper will look at the literature available about these methods as well as scoring models and metrics used by RTA. Icelandic companies are still discovering portfolio management and there seems to be growing interests in Iceland. This paper may help other companies who are looking for ways to manage their portfolios. It should give the reader a good overview of how a large international company manages its portfolio and hopefully leave the reader with a greater understanding of portfolio management.

Keywords: Project Portfolio Management, Project Management, Rio Tinto Aluminium, Buckets, Stage-Gate, Scoring Models, Metrics.

1. INTRODUCTION

Rio Tinto Aluminium (RTA) Iceland (ISAL) is one of three aluminium smelters in Iceland, it is the smallest and oldest of the three. It is a part of Rio Tinto aluminium branch with headquarters in Montreal Canada. RTA started using its current portfolio management system in 2009 it is a top down approach where the strategy and portfolio rules are decided by headquarters and laid down the line to all its smelters.

In 2015 a group of Master of Project Management (MPM) students from Reykjavík University approached the leader of RTA ISAL project management with a request to do a Project Portfolio Management (PPM) assignment he was happy to provide the group with hours of explanations and a presentation that he had prepared about the subject. Five other MPM groups did similar assignment for other Icelandic companies. None of them has a portfolio management that is anything close to being as organized and structured as the portfolio management at RTA. In his 2015 MPM final thesis, Kristinn Þorvaldsson also found that PPM seemed to be in its infancy in Iceland. This raises a question of who the Icelandic companies could look to for guidance in PPM. Is it possible that the RTA way to portfolio management could benefit other Icelandic companies?

This paper explains RTA´s approach to portfolio management by breaking the approach down to practical steps in order to explain it in a simple way. The literature behind it was studied, starting by looking at the general PPM then moving on to portfolio governance, the bucket approach, the stage-gate method, metrics and lastly some scoring models.

2. LITERATURE REVIEW

A literature survey on PPM has revealed that the case study literature is mostly related to the financial industry and secondly to the pharmaceutical industry. However, most of the literature cited in this paper is either from general project portfolio management literature or literature dedicated to new product development and product innovation. Some of the portfolio management techniques discussed in this paper have been adapted to general portfolio management from new product development techniques.

Other literature on the subject of PPM not discussed in this paper includes Technology Portfolio Management: Optimizing Interdependent Projects Over Multiple Time Periods (2001) by Dickinson, Thornton and Graves; Assessment of synergies for selecting a project portfolio in the petroleum industry based on a multi-attribute utility function by Lopez and Almeida (2015); Exploring Portfolio Decision-Making Processes by Kester, Griffin, Hultink, Lauche (2011); Behavior of internal stakeholders in project portfolio management and its impact on success by Beringer, Joans, Kock (2013); Portfolio decision-making genres: A case study, by Kester, Hultink, Lauche (2009) and Project Portfolio Management (PPM) in Small Consulting Companies – Overview of PPM and an Example of a Simplified PPM Scoreboard by Gunnar H. Kristjánsson (2012).

2.1 Portfolio Management

Companies and organizations may have both many projects and potential projects while they have limited resources to allocate to these projects. They will therefore need to prioritize their project selection and that is where portfolio management comes in. Portfolio management is about resource allocation, project prioritizing, aligning project selection with company strategy, deciding new product innovation and finding the right balance between long term versus short term, risk versus return and maintenance versus growth. (Cooper, Edgett, Kleinschmidt, 1997a and Zheng, Vaishnavi, 2009).

Cooper, Edgett and Kleinschmidt, (1997b) further refined the definition by stating that PPM is about achieving the following 3 main goals.

- Maximizing the value of the portfolio
- Balance in the portfolio.
- Link to strategy.

In 2001 Cooper and Edgett, added the fourth goal

- Picking the right number of projects.

To achieve these goals companies have a variety of methods to choose from (Cooper, Edgatt and Kleinschmidt, 1997a). This paper will narrow this selection down to the methods and methodology with relevance to RTA PPM starting with the highest portfolio authority, portfolio governance. It will then take a look at two portfolio methods, starting with the bucket approach which is a project sorting method that allows managers to sort projects according to company strategy. The second method is the Stage-Gate method which is a project management tool that helps managers sort the good projects from the bad under a controlled development approach. Finally it will look at projects metrics and scoring models. Metrics being measurements of project success and scoring models being how metrics are evaluated in context.

2.2 Project Portfolio Governance

Portfolio governance is a way for organizations or companies top decision makers to ensure that the company strategy is reflected in the projects that are selected for execution. The organizations top decision makers make the rules on what kind of projects get selected and how they get selected. This eliminates the need for micro managing the project selection process which can prove difficult in a large multinational organization. PPM is all about decision making based on logical data. Most importantly decisions must be made with speed so they do not miss passing opportunities. This approach to PPM is known as Portfolio Governance (Levin, Wyzalek, 2015). Another definition of Portfolio Governance is “the structure and exercise of authority for the initiatives and the portfolios within the portfolio management domain, which defines and enables decision making; assesses metrics on initiatives value and alignment with business strategy; and is responsible for effective and legitimate oversight for the contributions to business success of these initiatives and portfolios” (Hanford, 2006, p.10)

2.3 The bucket approach to portfolio domain structure

Companies need a way to prioritize projects according to the criteria defined by the senior managers who set the course. But how should this prioritizing be done? If we only look at the most profitable projects we might miss important opportunities on health and safety improvements or low profit project that are essential to the company´s success. The bucket approach is a method designed to solve this problem by prioritizing projects by company strategy (Cooper, Edgett, Kleinschmidt, 1999) The bucket approach was called strategic buckets by Cooper (2002) but it was called portfolio domains by Morgan, Levitt and Melek (2007). Whatever it is called, it is a practical way for an organization to compare investment value of projects. Companies or organizations can compare investment value of projects as different as compliance to the authority's rules and regulations for license to operate versus investments in new manufacturing equipment or maintenance (Morgan, Levitt, Malek, 2007).

> The Strategic Buckets approach is used by some leading firms to ensure that portfolio spending mirrors their strategic priorities. Here, management pre-allocates funds to various "buckets": project types, markets, technologies, or product lines. These splits are based on strategic considerations (for example, Allied Signal splits development resources into three buckets: platform projects, new products and minor projects). Projects are categorized by bucket and then rank-ordered within a bucket. Thus, multiple lists or portfolios of projects are created, with each portfolio managed separately. (Cooper, Edgett, Kleinschmidt,2000)

In Barczak´s et. al. (2009) best practice study of product innovation companies they found that the only technique that differentiates between the best companies in innovative performance and the rest is using strategic buckets. The strategic buckets method for evaluating a portfolio is a top-down approach that operates from the simple principle that implementing strategy equates to spending money on specific projects where the money that is spent mirrors the business's strategy (Cooper, Edgett, Kleinschmidt, 1997a and Chao, Kavadias, 2008).

Other methods include value maximization methods, its greatest weakness is that it fails to align the portfolio according to the strategy and balance like the bucket approach. Whatever method is used first and foremost a portfolio must contain good projects with good profitability and high likelihood of success (Cooper, Edgett, Kleinschmidt, 1997).

2.4 Stage-gate

The Stage-gate technique is widely used all over the world today in a variety of businesses and has become increasingly more popular in recent years. It divides the project process into a set of predetermined stages. Each gate has its own "must meet" criteria that project leaders must full fill in order to proceed to the next stage. Stage-gate systems are usually made up of four to seven stages and gates. A typical system is shown in Figure 1. Stages are usually more expensive as the projects progress further and simultaneously more and better information is required for them to pass each new gate. This helps in managing risk and the gates serve as controlled checkpoints for the project process. (Cooper, 1990)

"Each gate is characterized by a set of deliverables or inputs, a set of exit criteria, and an output. The inputs are the deliverables that the project leader must bring to the gate. The criteria are the items upon which the project will be judged, the hurdles that the project must pass at the gate to have the gate opened to the next stage. The outputs are decisions at the gate, typically a Go/Kill/Hold/Recycle decision, and the approval of an action plan for the next stage." (Cooper, 1990, p 46)

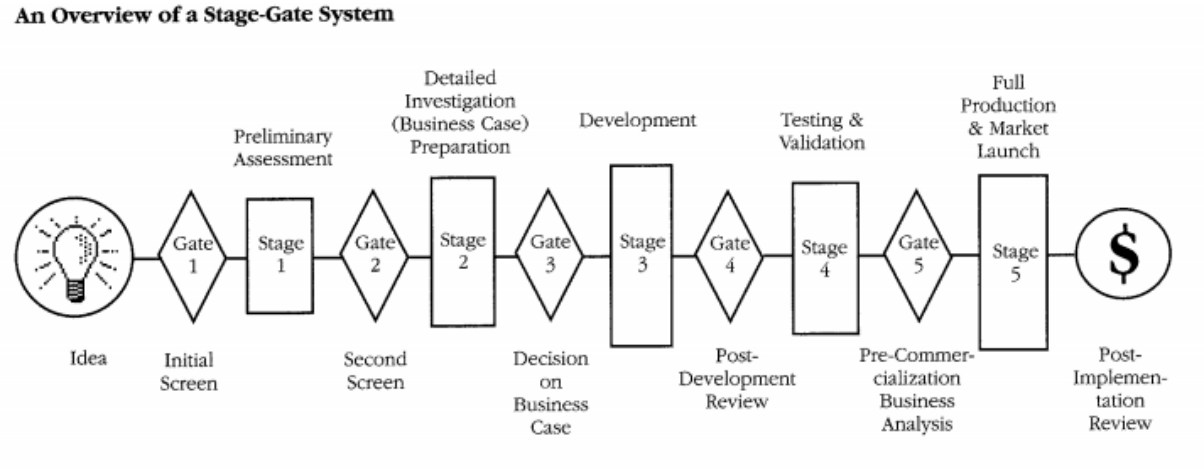

Figure 1(Cooper, 1990)

2.4.1 Gate management

The portfolio governing is done through a group of people called the gate keepers, they often consist of senior managers usually the heads of their department within the company or experts nominated by the company top management. The keepers need clear and visible criteria, which must be effective and easy to use in order for the keepers to make good decisions. The keepers make Go/Kill decisions on projects and commit the needed resources. Their role as bosses must be separated from their function in the decision making team, they need rules of engagement in order to govern their own behavior. (Cooper, Edgett, Kleinschmidt, 2002)

An important part of the gate method is killing of bad projects, in his paper Cooper (2002) names five reasons why gates are to week to kill of bad projects.

- "There are too many "must do" projects" (Coooper, 2002).
- "There is no mechanism to kill projects" (Cooper, 2002).
- "No criteria have been established for making Go/Kill and prioritization decisions" (Cooper, 2002)
- "Senior people are not engaged in the decision process properly" (Cooper, 2002)
- "It is simply very difficult to "drown puppies"" (Cooper, 2002).

2.4.2 Stage gate models in practice.

In their 2013 study of six companies using the stage gate process for technological development in industry, Högman and Johannesson found that each of the six companies had found and developed their own ways to implement and use the stage-gate models. The adaptations were mostly to manage uncertainties and reduce risk. These adaptations included looping back over one or more stages, delaying gates, redefining projects conducting development as a project

relay race where groups take over the project one after the other, and having projects go through the stages over and over. (Högman, Johannesson, 2013). Most major companies in the Oil and Gas Industry have adapted the stage-gate process with slight differences between how they use the method (Walkup, Ligon, 2006). The method is also commonly used in the aluminium industry.

2.5 Metrics

It is vital for management to find a way to measure the projects performance. For this they would use Key Performance Indicators (KPI) or other metrics.

KPI´s are a metric to measure the most important control/performance parameter. Metrics should be established before the project starts and some metrics should be allowed to change if redeemed necessary throughout the project life cycle. It can however be difficult to measure the metrics even with their best possible definition. Some metrics are based on parameters/values that can be easily measured while others can depend on people´s assessments or opinions (Kerzner, 2010)

Kerzner (2010) puts KPIs for measuring value into two categories. Values that are easy to measure he calls Soft or Tangible values while he calls values that are hard to measure intangible values. Table 1 show an example of these values.

Table 1 Kerzner (2010)

Easy (soft/Tangible) values	**Hard (Intangible values)**
Return on investment (ROI) calculations	Stockholder satisfaction
Net present value (NPV)	Stakeholder satisfaction
Internal rate of return (IRR)	Customer satisfaction
Cash flow	Employee retention
Payback period	Brand loyalty
Profitability	Time-to-market
Market share	Business relationship
	Safety
	Reliability
	Reputation
	Goodwill
	Image

Many managers seem to pay more attention to tangible values as there is hard data behind them while others consider the intangible values to be more important. The latter appears to be the case in the IT industry according to Kerzner (2010). Both KPI categories have their pros and cons. It is easy to find your way back to how a decision was made with tangible values but looking only at the tangibles can be dangerous if the data is not viewed in context, for example a 1 million dollar profit can look like a good indicator but if the investment was 100 million your money is most likely better invested elsewhere. Kerzner (2010).

2.5.1 Leading vs lagging metrics

Morgan (2007) describes lagging metrics as good indicators of the past but do little to guide future actions and investments. “What happened in the past is very seldom useful to lead an organization.” Morgan (2007). Profit, inventory, product volume and debt/equity ratio would all qualify as lagging indicators as they can only tell you what happened in the past. Leading metrics are however a measure of parameters that will have cause and effect in the future. For example, if a company wishes to reduce accident rates to near zero it would do them no good in their effort to measure accidents as they have already happened. A leading metric in this case would be the measure of near misses and potential hazards.

“Project success can be measured intermittently throughout the phase or gate review meetings that are part of the project management methodology. This allows a company to establish interim metrics for measuring success.” (Kerzner, 2010, p 30)

2.6 Scoring models

Many methods and models have been created and are used to select and valuate projects. Cooper, Edgett, Kleinschmidt (1997) found that these methods could be quantitative (what can be counted) and/or qualitative (strategy etc.). (Cooper, Edgett, Kleinschmidt, 1997)

Cooper, Edgett, Kleinschmidt (1998) found that having a consistently explicit portfolio management process made all the difference on performance of the portfolio. Additionally when comparing the top 20 percent performers to poorer performers they found that the top performers had:

- An explicit, established method for portfolio management.
- Management that buys into the method and supports it through their actions.
- A method with clear rules and procedures.
- Treated projects as a portfolio.
- Applied the method consistently across all appropriate projects.

Some researchers have tried more technologically advanced methods with good results. In his study of the decision making process in a multinational manufacturing company based in the UK, Marcos (2007) found that using a selection model based on Simple Multi-Attribute Rating Technique (SMART) using Decision Support System (DSS) software greatly facilitated decision making. In fact the method showed superiority over the one selected by the managers. (Marcos, 2007)

3. METHOD

This research was conducted in the form of interviews with RTA project managers. The project managers who contributed to this research where.

- Previous leader of RTA ISAL project management.
- Current leader of RTA ISAL project management.
- Project management officer RTA Primary Metal (PM) Project Management Office (PMO).

Three formal interviews were taken at RTA ISAL offices. The first interview with the previous leader of RTA ISAL project management was conducted in the fall of 2015 as a part of a portfolio management assignment in the course Managing Project Programs and Portfolios (T-764-VEVE) in Reykjavík University. The project management leader provided the basic information on which this paper is based. The second interview with the current leader of RTA ISAL project management took place in March of 2016 and the third in April 2016 with the Project management officer RTA PM PMO. The project management officer was interviewed via speaker telephone with the current leader of RTA ISAL project management present. The project managers were asked open questions about RTA portfolio management and discussions where encouraged to further understanding. The questions where all formed to explain and clarify the topics of this research and the techniques used by RTA.

- Portfolio domain structure
- Portfolio governance
- Portfolio balance.
- Project metrics and scoring
- Discussion about RTA structure and PPM.

After the interviews the current leader of RTA ISAL project management answered some questions to clarify and secure mutual understanding via telephone. The project management officer RTA PM PMO was sent the research part of this paper to make sure mutual understanding was correct.

4. RESULTS

RTA plays a big role in Iceland's economy as one of Iceland's biggest export firms. Below is a diagram of RTA company structure as it was in April 2016.

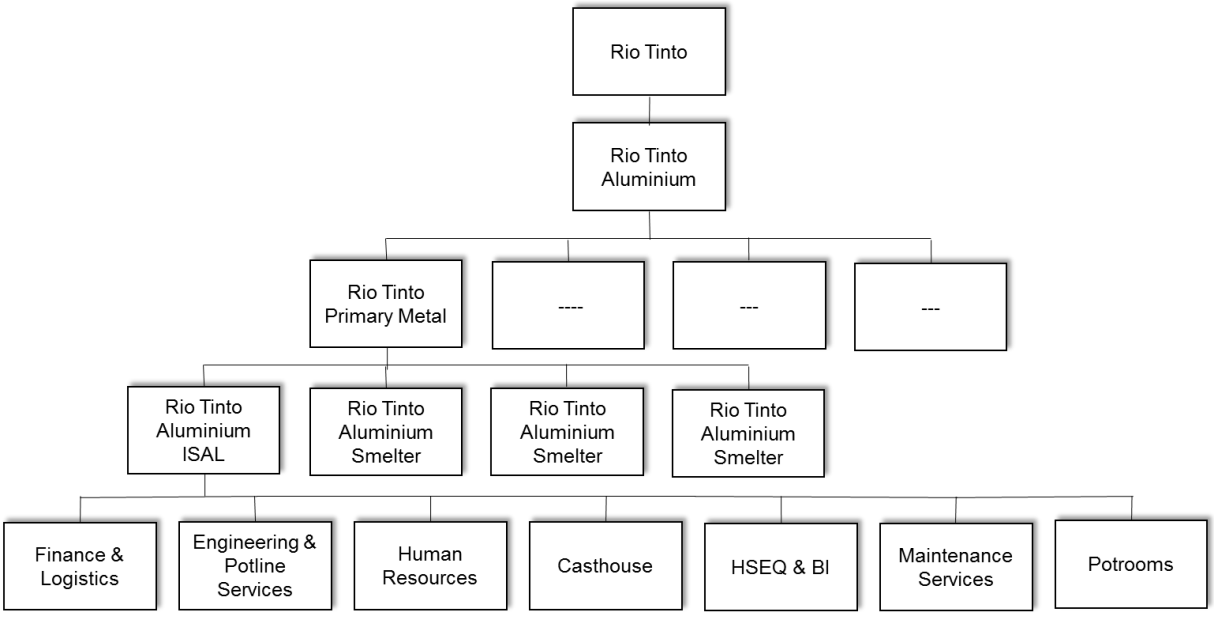

Figure 2 RTA ISAL company structure

RTA ISAL annual capacity is about 205.000 tons of aluminium and it employs 450 people. The company is ISO 9001, ISO 14001 and OHSAS 18001 certified and combines latest technology and environmental responsibility with the assets of high-skilled and well-trained workmanship.

RTA company goals are:

- Produce high quality aluminium
- Ensure the health and safety of the employees in harmony with the environment
- Maximize profits for the shareholders.

The company goal is mirrored in the project portfolio structure and management.

RTA head office is in Montreal Canada. RTA ISAL belongs to RTA Primary Metal (PM). The PM office has 2 project management officers who are part of the RTA global engineering services and support specifically the European smelters. The project management officers belong to the PM Project Management Office (PMO) which has primarily the following four roles.

- Assist in project evaluations.
- Define project management best practices.
- Overlook the portfolio and report to the head office.
- Assist project managers in smelters belonging to RTA PM.

4.1 RTA portfolio domain structure using the bucket approach

RTA uses the bucket approach to sort projects into the following four buckets:

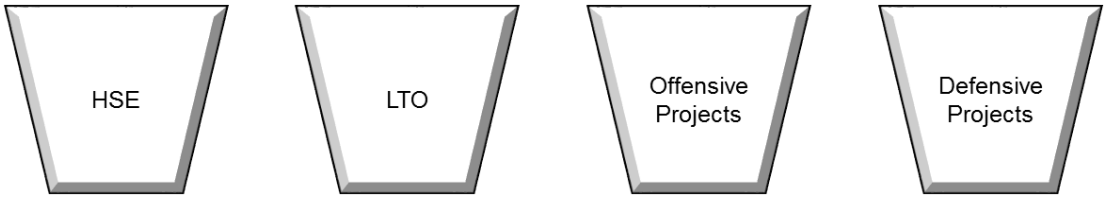

Figure 3 RTA Project Buckets

- HSE (Health Safety and Environment): projects related to improve health, safety and environment.
- LTO (License to Operate): projects that have their main goal to keep the companies license to operate.
- Offensive projects: Projects that have as their main goal to create value.
- Defensive projects: projects the have the main goal of sustaining production.

RTA structures the portfolio further into 3 project domains depending on the projects budget, as described later in this paper.

- Projects with a budget of under 300.000 USD
- Projects with a budget between 300.000 USD and 1.000.000 USD
- Projects with a budget of over 1.000.000 USD.

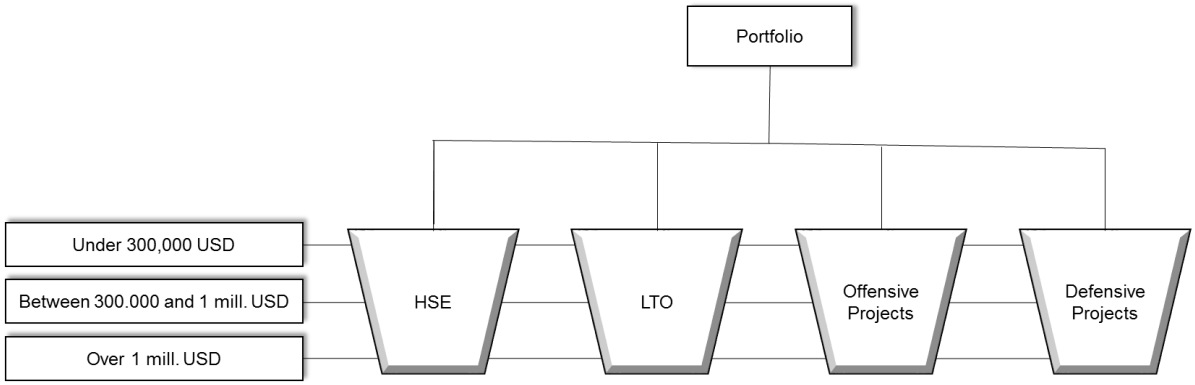

Figure 4 RTA Portfolio Structure

The process is based on the practice that individual project leaders sort their own projects into the buckets. The gate committees then verify the sorting and evaluate if the projects fulfill the project requirements to be accepted into the portfolio.

4.2 RTA Gate Committees and Methodology

The portfolio is governed by RTA's head office in Montreal Canada. They decide how the projects are evaluated for the portfolio and what standards should be used. They also decide what the annual budget is going to be based on a proposal by the site management, which has a big impact on project portfolio decisions.

RTA uses the stage-gate methodology to evaluate projects and for this purpose they have three gate committees. Below is a list of the gate committees along with its occupants

- Site gate committee. Occupied by the site head of Finance and logistics, Engineering and potline service, Human resources, Casthouse, Health Safety environment quality and business intelligence, Maintenance services and Potrooms along with the plant manager who also acts as the gate committee chair.
- RTA PM gate committee. Occupied by PM financial officer, HSE manager, technical manager for operation excellence and the purchasing manager. They can also call for additional members in the form of technical experts if needed.
- Business unit investment committee (BUIC) from RTA PM. Occupied by the financial officer, HSE manager, technical manager for operation excellence and the purchasing manager from RTA PM head office. They can also call for additional members in the form of technical experts if needed.

The gate committees rank and evaluate projects for the portfolio. They make Go/Kill/Hold/Recycle decisions at gate meetings where the projects are presented.

In addition to the site gate committee there is a site investment committee which role is to get ideas from the managers and leaders of operations, evaluates them and classifies accordingly. It also decides which projects get presented to the gate committees. The site investment committee is seated by the same managers as the site gate committee with the exception of the technical experts. If the project has an estimate of less than 300.000 USD, the site gate

committee will preside over the project. If the cost estimate is between 300.000 USD and 1 million USD, RTA PM will preside over the project. If however the project has a cost estimate of more than 1 million USD, a business unit investment committee (BUIC) from Rio Tinto Aluminium global headquarters will handle the decision process. If the project makes it to the portfolio it has to go through a six stage-gate process. At each gate an evaluation is performed by the gate committee that presides over the project.

- At the first gate the project sponsor will present the project business case to the portfolio team and the project metrics will be determined.
- At gate number two, a decision to invest is made on one solution.
- At gate number three, a feasibility study is presented.
- At gate number four, end of execution start of start-up.
- At gate number five, commissioning and ramp-up are performed after testing.
- At gate number six, project closure and metrics reevaluated.

Figure 5 illustrates the project flow through the stages and gates (a larger example is available in the paper appendix).

The site gate committee meets every two weeks to discuss and evaluate projects while the RTA PM committee and the BUIC RTA committee both meet every two weeks. If a project manager needs to expedite a project (for example a project involving immediate HSE improvements) he can ask the committees to meet and discuss the project at any time. A senior RTA Project manager estimated that 80% of all projects presented to the PM committee and RTA global committees pass Gate 1, 75 to 80% at Gate 2 and 95% at Gate 3. Projects that do not pass get rejected or send back for reevaluation. This may seem like an unusually high ratio of projects to pass the gates. The explanation is that the site RTA gate committee selects the projects that get presented to the other two committees and it does not let projects get presented that are not likely to pass the gates. How many projects are rejected by the site gate committee is unknown.

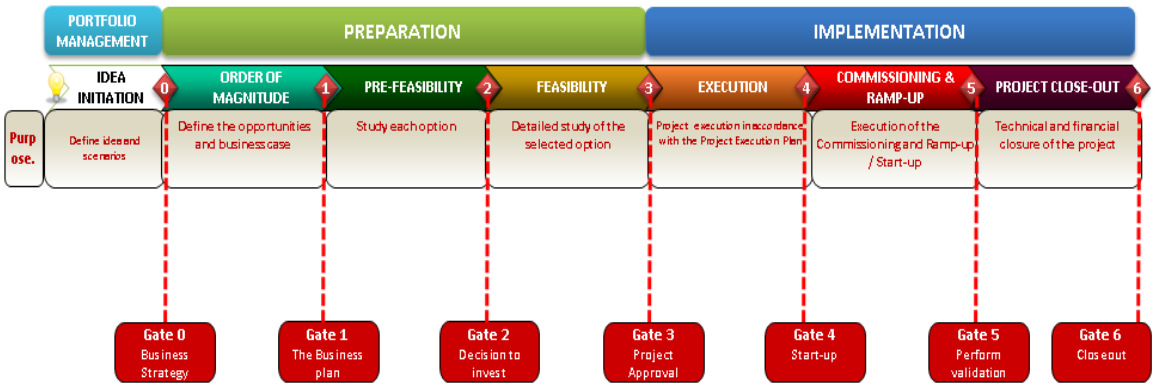

Figure 5 Project Flow

4.3 RTA Portfolio balance.

When evaluating the portfolio balance RTA managers use the balance between different project buckets. There are rarely any LTO projects, HSE project normally represent about 20 – 25% of the portfolio, defensive projects about 50 – 55% and offensive project about 25%. According to RTA PM project management officer it is important to the RTA management that this ratio between offensive and defensive project is sustained. RTA senior managers also keep an eye out for the ratio between small and large projects.

4.4 RTA project metrics and scoring

Scoring for LTO projects is very simple, all projects that fall into this category get done and are the first projects to receive funding. After all, the other projects have limited purpose if the plant can't operate.

HSE projects get priority in the portfolio based on how high the threat is to health, safety and/or environment. An evaluation team grades the projects according to a HSE risk evaluation matrix shown in table 2. The projects that get a red scoring (classified as high risk or "Class IV") will have priority before anything else.

Table 2 HSE risk evaluation matrix

Probability	Consequences				
	1. Minor	2. Mediocre	3. Severe	4. Major	5. Catastrophic
A - Certain	Some	Considerable	High	High	High
B - Likely	Some	Considerable	Considerable	High	High
C-Possible	Low	Some	Considerable	High	High
D - Seldom	Low	Low	Some	Considerable	High
E - Rarely	Low	Low	Some	Considerable	Considerable

Scoring for offensive and defensive projects is done by Profitability Index (PI), Return On Investment (ROI), Net Present Value (NPV) and discounted payback time (in years). The evaluation is also impacted by other important factors and of the four the PI is the first one to receive attention. The gate committees evaluate the projects and make Kill/Go/Hold/Recycle decisions based on their assessment. The PI index for acceptable projects is decided by RTA global and is adjusted annually. Total project cost is also taken into account when projects are evaluated for the portfolio. Company funds for projects at any given time impact the acceptance criteria as some projects may simply be too expensive to be executed. The RTA ISAL management must pick projects for the portfolio based on the available annual budget. The budged is divided between the buckets where HSE and LTO have separate budgets while offensive and defensive buckets have a joint budget. The site management is requested to present a 5 year investment plan every year to RTA PM for approval.

When hard/tangible metrics are presented, RTA uses expert assessments for evaluation. For example if a project to reduce employee retention is presented to a gate committee, engineers will estimated the cost and time it takes to train a new employee and the estimated loss of man-hours resulting from the retraining. Man-hours have a fixed rate and from that a PI can be calculated.

5. DISCUSSION

RTAs purpose (like any other profitable business) is to maximize its shareholders profits. The value maximization method greatest weakness is however that it fails to align the portfolio according to strategy and balance as stated by Cooper (1997). RTA solves this by using strategic buckets to sort its projects according to the company strategy. This also gives a good overview of the types of projects in the company portfolio. RTA bucket sorting system is clear and effective and seems to be a good fit for this type of organization. Although when it comes to offensive and defensive projects their method is value maximization which is a worthwhile and achievable objective as long as the portfolio contains good projects with good profitability and high likelihood of success.

According RTA project managers it can be very difficult to get projects through the scrutinous review of the gate committees. There are no "must do" projects unless they score extremely well on the predefined scoring criteria by headquarters. There is a good working mechanism in place to kill projects and projects do get killed on regular bases which is a good indicator that the gates are working. All the gate committees are seated by senior managers and they are responsible for the go/kill decisions which makes them very involved. Projects are usually presented to the gate committees by lower managers and reviewed at the gates by more senior managers and external experts. RTA ISAL plant management selects the projects to be presented to the gate committees but do not govern the portfolio and do not reside over project over 300.000 USD. This makes it more difficult to have expensive (over 300.000 USD) projects with management personal interest (pet projects) pass the gates.

RTA scoring models are a mix of KPI´s and expert evaluations. The line between the two is not always clear and it can be uncertain how the project will be evaluated at the gates. LTO project scoring is as simple as it needs to be, all LTO projects go to the portfolio and get done, since they are the core to the company's existence. HSE project scoring is more complex and relies heavily on leading metrics (near miss accidents). Employees are encouraged to report all near miss accidents. Those near misses are then investigated by experts and projects for improvements are developed and ranked according to a predefined risk matrix. This method has contributed to RTA´s success on low accident rate along with other actions RTA has undertaken to keep accident rates low (employee awareness campaigns, zero tolerance for safety rule incompliance etc.) as the smelters accident rate is at an all-time low. Offensive and defensive projects are a different story as they relay almost solely on financial indicators. RTA depends on the expertise of the senior management when ranking offensive and defensive projects for the portfolio. The gate committees not only use the PI, ROI and NPV to rank the projects. They will also evaluate the background of the estimates behind the KPI's and it is not uncommon that projects are rejected because of poor estimations.

RTA managers have found it can be very difficult for defensive projects to compete with the high PI of offensive projects according to one senior manager. This has lead the RTA managers to try to combine offensive and defensive project sometimes with poor results. RTA has recognized this problem and has plans to change the budgeting so that the offensive and defensive projects have separate budgets. This change is also more in line with the literature as the whole point of the buckets is to allocate funds according to strategy.

6. CONCLUSION

RTA method for selecting projects in to its portfolio mirrors the company goals and high focus on HSE. The RTA way has a good PPM structure. The rules and strategy is set by the highest authority in the organization and most of the RTA way is “by the book”. RTA has shown that the portfolio management system is versatile, the senior managers are willing to change the rules if they are not working as intended which is important and in accordance with the literature.

During the present work the author of this paper was unable to verify that RTA has written guidelines or rules for the site gate committee to score offensive and defensive projects although all the RTA project managers that where interviewed claimed that they do exist. RTA seems to depend mostly on the profitability Index which in turn relies heavily on how good the experts are at predicting the future and how good the data is that is used to reach the estimates behind the PI. It may however not be enough to have the PI as a good project indicator. As the senior managers sit on the site investment committee and choose projects for their own department vs other departments where resources are limited. This could leave open the possibility of deals being struck between department heads for projects and project selection could be influenced by which department has the strongest advocate. For this reason Cooper (2002) states that gate keepers need to have rules of engagement to govern their own behavior. RTA needs to stiffen those rules as the managers interviewed for this paper where unable to clearly state what they were besides the PI. They agreed that risk was involved and other factors but were unable clarify specifically what made one project more appealing then another if the PI’s where similar.

The key things that other companies can take away from the RTA way are: Find a PPM system that fits your company needs, implement it and change it if something is not working to your expectations. Make sure the portfolio is governed by the most senior managers, find a project sorting system that enables you to select good profitable projects according to company strategy, create a scoring system and select KPI’S to be able to compare different projects on common ground and try to make your evaluations as neutral as possible by bringing in experts and/or creating PPM rules.

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APPENDIX, Project Flow