

Morgan Hill Consultants Ltd

Metresis™

Performance Management Model



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Metresis™ Performance Management Model

1. Introduction

This document describes how to use the Metresis™ Performance Management Model to create a standard process for evaluating new project based investments. It is designed to be used by those people who support investment committees or similar bodies within the corporate governance structure.

Metresis™ has been implemented in a variety of organisations in industries that include: Banking, Telecommunications, Transport and Logistics, and Retail. In most instances it has been deployed to support investment decisions made in IT.

If you have any comments or suggestions for the general use of the model that you would like to share with us then please get in touch at this address: metresis@morganhill.co.uk.

1.1 Software

Software to support Metresis™ is available from Morgan Hill. In addition to providing the governance controls described in this document the software provides everything required to track and monitor the progress of individual projects within programmes and portfolios. This software is currently available as part of a fully managed Cloud based PMO service.

Used correctly Metresis™ will help an executive body take decisions that will increase the return made on funds invested in technology. Specifically, Metresis™ :

- Allows comparison of past performance with potential future investments.
- Provides a predictive view of potential future investment performance.
- Tracks running investments.
- Tracks running investments by plan actual and forecast financial data.
- Provides a predictive view of running investment, future performance.
- Provides KPI definition and tracking
- Delivers automated risk assessments by reference to adjustable limits.
- Provides a decision support reporting capability based on portfolio management techniques.

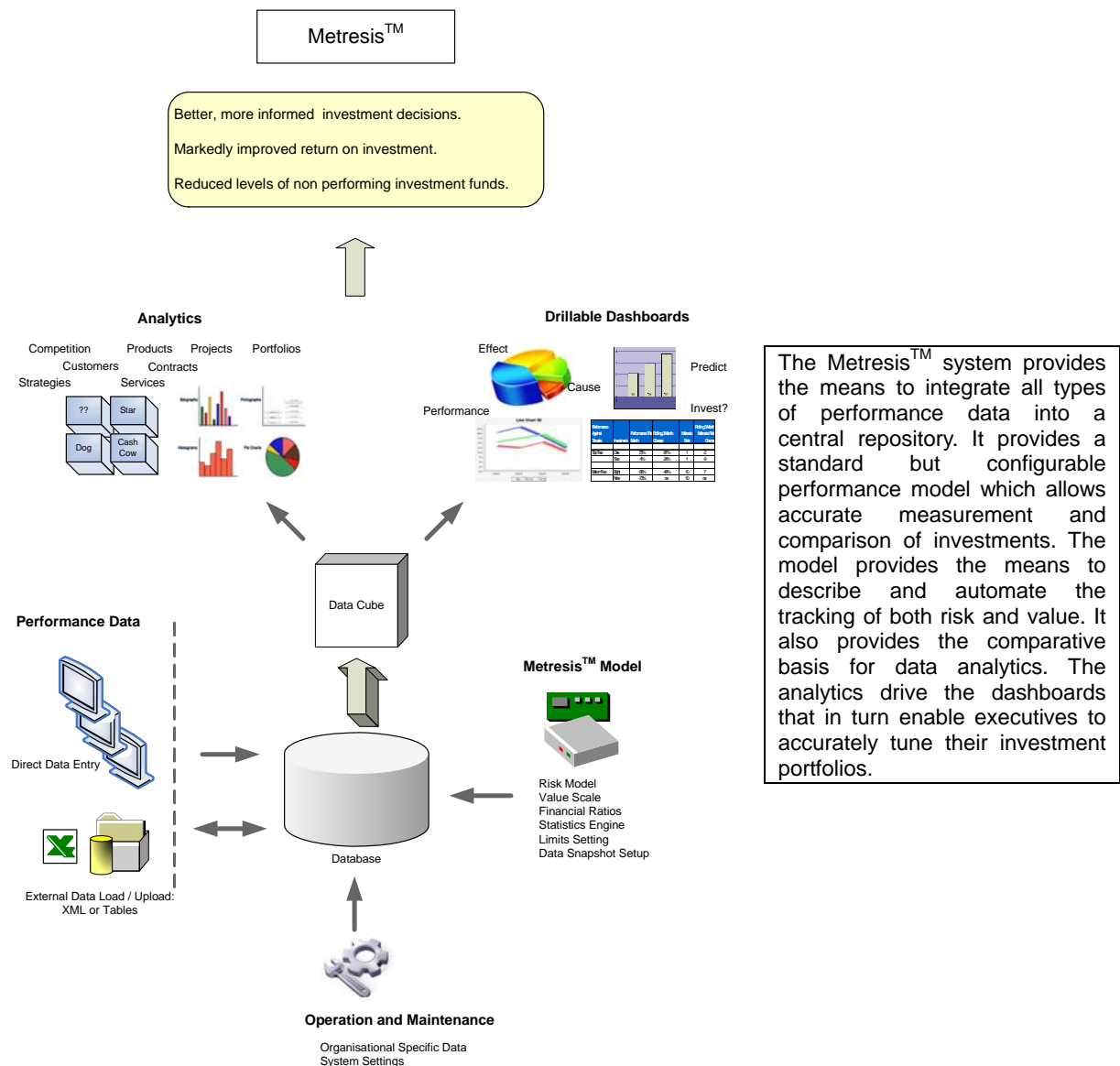
If you would like to use the Metresis™ software then please contact us at this address: metresis@morganhill.co.uk.

Metresis™ Performance Management Model

2. The Metresis™ Model

The Metresis™ model allows executives to maximise the benefit or returns made on corporate investment funds. It shows where to place funding for maximum effect and it shows where costs can be cut. It does these by providing the basis for measuring and evaluating the relative performance of investments. This allows the executive to act in the light of past experience as well as the knowledge of likely future performance. In short, Metresis™ will improve the return on corporate funds.

The model is embedded within the Metresis™ system¹ as illustrated below. All configuration and use of the model takes place via the system. The following text describes how the model works and is not intended as a user guide for the software itself. Guidance on the use of the software is not within the scope of this document.



¹ Reference is made to the software in this section as it helps to explain the Metresis™ Model itself. It is not necessary to have the software to use the Model to assess new [IT] investments.

2.1 Operational Summary

The fundamental task of the Model is to assess investments for value and for risk and to provide actionable output as a result. It has two principle parts: the first is designed to assess an investment prior to it being sanctioned to proceed. The second is to assess investments that have been sanctioned, on a regular, periodic basis usually monthly.

The pre-invested assessment is conducted by a person using the criteria and scoring mechanism within the Model. This type of assessment usually takes place using a business case as input. The person conducting the assessment also has access to the Metresis™ performance database which provides the knowledge base representing what worked, what did not and in both cases to what extent. This knowledge base can be used to provide an indication of how a potential new investment might be expected to perform, based on the history of similar previous investments, this is the Metresis™ pre-investment predictive capability.

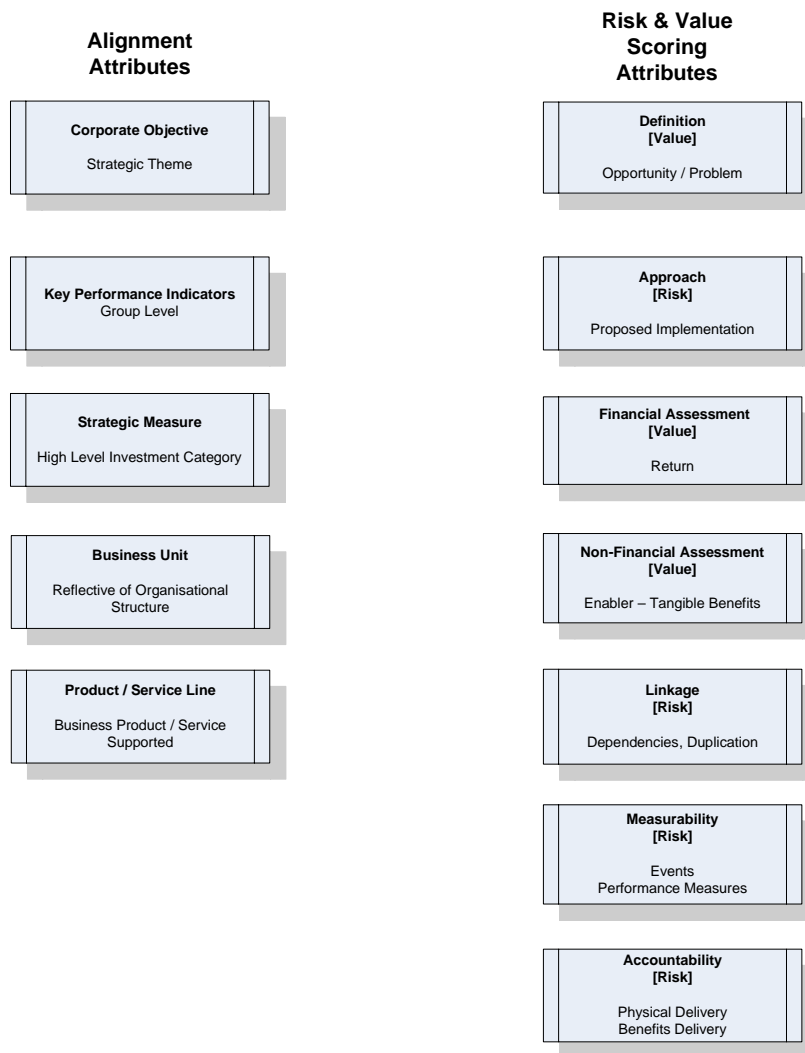
The second part of the model assesses the actual performance of an investment. This process is usually run in automatic mode although this can be overridden and set to manual. In manual mode, it is up to the operator to assess progress using the same method as described above for a pre-invested assessment. Manual mode is usually used only when there are significant doubts about a new, authorised investment.

Automatic mode will measure an investment by risk and by value without any intervention by an operator. Preset, operator controlled limits are used to provide a measurement basis. The risk assessment compares physical and tangible attributes like planned financial data and planned targets against those that have been achieved in a time period and compares this with the limits set. A risk score is calculated by comparing the difference between this plan and actual, referencing the limits table and then deriving a score which is then added to the repository.

In a similar manner, a financial value score is calculated. Financial value is derived by reference to a chosen ratio for example net present value, NPV. The ratio is re-calculated during the automated assessment using a combination of actual to date and forecast data. This combination allows an estimate to be made of what the predicted final (NPV in this case) might be against that originally planned. This difference is compared against an operator set scale table which is used to derive a new financial value score.

2.2 Attributes

The Model uses attributes of an investment in two ways. The first is to describe where the investment fits into the organisation and how it supports any particular objectives or strategies, these are called Alignment attributes. The second are the attributes used to assess a value score and a risk score. Attributes are a structured mechanism to allow categorisation and measurement to take place.



2.2.1 Definition of Risk

Risk is defined as: the likelihood of the investment failing to deliver its planned value within the budget allocated and within a reasonable tolerance of the timescale estimated.

2.2.2 Definition of Value

Value is a measure of the worth of an investment to the organisation. Value can be expressed as either a financial value or a non financial value. In both cases a value score is delivered by the model. When balancing a portfolio it is standard practice to filter investments such that those delivering a clear financial return may be balanced by those that deliver less tangible but still evident value.

2.2.3 Alignment Attributes

The alignment attributes describe an investment from a group of operator set items that are standard across an organisation or unit within an organisation. The standard attributes are shown in the above schema. More can be added if necessary. These attributes help to group collections of similar investments. They work with an investment's portfolio and programme membership and are an aid to the analytics and dashboard output. Alignment attributes are set for each investment by an operator during the initial assessment of a business case.

2.2.4 Risk and Value Scoring Attributes

There are three value and four risk attributes in the model. Each of these attributes comprise a numerical sequence between 1 and 10 and an associated textual description which helps an operator select a suitable risk or value score. A description of how to use the attributes to generate a risk and value score is shown in section 7.

In manual mode each attribute is assessed by an operator. In automatic mode assessment happens without the intervention of an operator. In automatic mode it is only the Measurability attribute that is assessed. A full description of how the automated assessment operates is provided at section 4.

2.2.5 Inputs to The Model

For the investments that have yet to be sanctioned the input to the model is the business case, however complete or otherwise.

For investments that have been sanctioned and are live the input is any form of progress report.

3. Using The Metresis™ Model – Manual Mode

The primary purpose of this mode is to assess business cases. The scoring process results in an overall risk and value score together with supporting rationale against each of the assessment attributes. The scores allow competing investment opportunities to be compared and ranked relative to each other. The scores also form the basis for providing a predictive outcome based on the performance of previous, similar investments. The predictive function is described in section 5.

The other use for this mode is when close interest in a particular investment is being taken. In this case it may be appropriate for an operator to assess such an investment on a regular basis and override the automated assessment. The automated assessment process works on the Measurability attribute only. If an operator were concerned that a significant level of risk existed in an attribute other than this then he may elect to switch off the automated assessment feature. Note that even with this feature switched off, the operator may run it on request and review its results before deciding on his own final assessment.

Risk & Value Scoring Attributes

**Definition
[Value]**
Opportunity / Problem

**Approach
[Risk]**
Proposed Implementation

**Financial Assessment
[Value]**
Return

**Non-Financial Assessment
[Value]**
Enabler – Tangible Benefits

**Linkage
[Risk]**
Dependencies, Duplication

**Measurability
[Risk]**
Events
Performance Measures

**Accountability
[Risk]**
Physical Delivery
Benefits Delivery

The scoring attributes to the left are each described in section 7 of the document. The tables shown there represent the standard Metresis™ configuration. Each of the tables is capable of configuration within the supporting software.

3.1 Scoring Value

The value of an investment is assessed at three stages:

- Definition
- Financial assessment
- Non financial assessment.

Each value stage of an investment is scored between one and ten.

The final value rating is determined from the value assigned to the financial assessment or from the value assigned to the non financial assessment.

The value score of the definition assessment does not contribute to the final value rating. It remains important; the assessment of the investment's definition will provide feedback on items that may affect the investment as it becomes operational.

The highest value score from either of the two attributes Financial Assessment and Non Financial Assessment will be the final value given to the investment.

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3.2 Scoring Risk

The four attributes that are used to determine the risk of an investment are:

- Approach
- Linkage
- Measurability
- Accountability

The approach, linkage and measurability attributes are individually risk assessed and scored according to whether they are low, medium or high risk.

Risk rating:	Low Risk	Medium Risk	High Risk
Score out of ten:	1 -3	4-7	8-10

Accountability can only be given a score of 1 or 10 subject to the level of responsibility identified within the document.

The overall risk assessment for the investment is taken from the highest risk score given to any of the four stages.

Full guidance on how to conduct an assessment is provided in section 7, Conducting a Metresis™ Assessment - Manual Mode.

4. The Metresis™ Model – Automatic Mode

Content removed – only relevant to software supported Metresis™ Model.

5. Metresis™ Predictive Capability

Content removed – only relevant to software supported Metresis™ Model.

6. Example Investment Assessment Form

Investment / Project Name

Alignment

Alignment Measures	Attribute
Business Unit	
Strategic Measure	
Corporate Objective	
Portfolio	
Programme	

Risk and Value Assessment

Attribute	Value Rating:	Risk Rating:	Model Narrative	Comment
1. Definition	8 High		A well defined and understandable description. Identifies all the critical areas which are appropriate to the investment. Good level of clarity and sufficient level of detail.	Analyst comment to explain score selected.
2. Approach		3 Low	The approach is reasonable, appropriate to the scale and ambition of the investment with a sufficient amount of detail to understand how the project will be implemented. Adequate measures are identified to mitigate the risk. Considerations such as resources may have been recognised but not detailed.	Analyst comment to explain score selected.
3. Financial Assessment	9 High		£ 10,000,000 – 19,999,999	Example analyst comment: NPV of £11.205 m over 4 years.

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Attribute	Value Rating:	Risk Rating:	Model Narrative	Comment
4. Non financial Assessment	8 High		Highly significant impact. Benefits are adequate and tangible. Intangible benefits are described where relevant.	Analyst comment to explain score selected.
5. Linkage		8 High	Dependent on a highly changeable external dependency. Dependent on an internal dependency which is of high risk.	Analyst comment to explain score selected.
6. Measurability		5 Med	Appropriate means in place to measure the investment, date specific but not adequately broken down into the physical delivery of the investment and benefits to be deemed low risk.	Analyst comment to explain score selected.
7. Accountability		1 Low	A named project sponsor	
FINAL RATING	9 High	8 High		
ADDITIONAL COMMENTS				

7. Conducting a Metresis™ Assessment - Manual Mode

The following sections of the document provide an explanation of how to assess each attribute within the model, in manual mode. At the end of each section 'Key Questions' are suggested which are designed to help determine a score.

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7.1 Attribute: Definition - Value

This stage assumes no prior knowledge of the investment unless a clear and available reference is identified within the documentation.

The investment description will ideally:

- Clearly identify the problem or opportunity
- Provide a statement of objectives
- State what will and will not be delivered
- Define the scope of the investment
- Reflect clarity, precision and realistic aims

Key Question:

How understandable is the investment definition?

Definition Scoring System

Value Rating	Explanation	
L O W	1	Content unclear.
	2	Some element of detail given but definition still unclear.
	3	May only just identify the problem/ opportunity.
M E D I U M	4	Problem/ Opportunity identified sufficiently but not entirely clear. No other information given such as scope/ objectives.
	5	The definition is understandable and realistic.
	6	The definition of the problem/ opportunity is understandable, with a sufficient level of detail but needs greater clarity and sense to be rated higher.
	7	Well defined description which is fully understandable but does not identify all the critical areas of the Investment relevant to the problem/ opportunity that should be included to give a high rating.
H I G H	8	A well defined and understandable description. Identifies all the critical areas which are appropriate to the investment. Good level of clarity and sufficient level of detail.
	9	A very well defined and focused description. Identifies the objectives and opportunity, defining the scope of the investment with more than sufficient levels of clarity.
	10	An exceptionally well defined and realistic definition. Clear and precise identification of the opportunity, the objectives and demonstrates the scope of the investment comprehensively.

7.2 Attribute: Approach - Risk

This attribute requires a clear description of how the investment is planned to be executed.

The approach taken should be relevant to the objectives of the investment. Overall, the approach should be adequate, appropriate and realistic whilst also being specific.

A well defined approach should give sufficient consideration to the following:

- Levels of experience within the company in terms of working on similar investments
- Resources including infrastructure, people, budgets and vendors
- Realistic timescales
- Use of a pilot to prove the concept where prudent.
- Historic risk indicators from other, related investments, often within the same portfolio.

An approach that gives insufficient information to be able to clearly identify how the investment will be implemented should be given a high risk rating.

Where there is sufficient evidence of risk from similar Investments already approved and running, this should be regarded as an influence on the likely risks involved, and the scores from those Investments considered as a factor in deriving the approach score.

The input documentation should identify how the investment will be implemented and should identify for example: resources, timescales and experience.

Key Questions:

How reasonable is this approach? Is the level of risk involved in the approach appropriate to the scale and ambition of the investment?

Are there appropriate measures in place to mitigate the risk of the approach? Are there pilots or specific management actions in place to minimise any risks taken in the approach?

What are the risk scores for similar investment that were run, or are currently running, and what factors determined those scores? Have the lessons from those investments been taken into account to mitigate such risks in the approach to this investment?

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Approach Scoring System

Risk Rating		Explanation
L O W	1	The approach is reasonable, appropriate to the scale and ambition of the investment and is precise. Appropriate measures are in place to mitigate the risk of the approach. The detail is more than sufficient showing specifically how the most crucial elements of the investment will be implemented. The approach will have fully explored resources, timescales and experience if applicable. To award a 1, the approach must contain a high level of detail.
	2	The approach is reasonable, appropriate to the scale and ambition of the investment. The level of detail is sufficient to give a clear understanding of how the investment will be implemented. The risks of the approach are mitigated against adequately. It is clear how the investment will be implemented.
	3	The approach is reasonable, appropriate to the scale and ambition of the investment with a sufficient amount of detail to understand how the Investment will be implemented. Adequate measures are identified to mitigate the risk. Considerations such as resources may have been recognised but not detailed.
M E D I U M	4	A reasonable, specific and adequate approach. Some measures are in place to mitigate against the risk. If applicable, considerations such as resources may not have been given consideration.
	5	The approach is adequately specific, appropriate and understandable. Measures may or may not be in place to mitigate against the risk of the approach.
	6	The approach is adequate but gives no consideration to mitigating against the risk. Insufficient detail to fully understand the approach.
	7	Enough information is given to gauge that the approach is reasonable and appropriate but it is non specific. No measures are in place to mitigate against the risk.
H I G H	8	An approach is identified, but the explanation is unreasonable in that it lacks information preventing an understanding of how this approach will be implemented.
	9	A vague approach is identified. It is unclear and/or irrelevant to the objectives of the definition of the investment.
	10	No approach identified.

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7.3 Attribute: Financial - Value

It is the financial viability or the viability of non financial benefits which will dictate alone the final value rating score of a proposed investment.

Whilst the software holds plan and actual data for all investments it is only the relative value of a ratio that is required to deliver a financial value for the investment.

In the case of BTB the ratio used to describe financial value is NPV.

Key Question:

What level of return will this investment bring?

Financial Scoring System

Value Rating	Where Investment is Incremental then Incremental NPV	Where Investment is not Incremental then NPV
L O W	1	Negative value
	2	0 - 499,999
	3	500,000 – 999,999
M E D I U M	4	1,000,000 – 1,999,999
	5	2,000,000 – 2,999,999
	6	3,000,000 – 3,999,999
	7	4,000,000 – 4,999,999
H I G H	8	5,000,000 – 9,999,999
	9	10,000,000 – 19,999,999
	10	20,000,000 and above

7.4 Attribute: Non Financial - Value

If the viability of an investment rests on non-financial benefits, it will often be an enabler or has resulted from compliance. In both cases, for a high value rating adequate definitions of the benefits is required.

In short, the higher the adequacy of the benefits, the higher the value ranking.

Enablers

An enabler is an investment which somehow facilitates, or is complimentary to, another investment or an existing asset.

A sufficient explanation of what is being enabled should be available or referenced.

The value ranking should reflect the contribution the enabler will make to the organisation.

For example, if the investment enables another investment which is financially attractive or enables a service which will have a beneficial impact on the organisation, the value should be high. If the impact of what is being enabled is minimal however, the value given should be low.

Compliance

A compliance investment is one that is:

- Required to comply with regulatory authorities or
- Has been mandated by an internal authority

Although compliance investments may have to proceed, a value ranking of the benefits still needs to be undertaken.

Investments Free of Compliance or Non Enablers

In order for any value rating to be given in this instance, clear proof has to be provided that the benefits outweigh the costs of the investment.

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Key Questions:

How tangible are the outlined benefits?

How significant are the impact of these benefits?

Non Financial Assessment Scoring System

Rating		Benefit Description:
Rating		
L O W	1	No benefits identified.
	2	Negligible Benefits
	3	A relatively small impact, benefits non specific or insufficiently described.
M E D I U M	4-7	Significant impact but the tangibility of the benefits is not fully described.
H I G H	8-10	Highly significant impact. Benefits are adequate and tangible. Intangible benefits are described where relevant.

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7.5 Attribute: Linkage – Risk

Linkage is an internal or external dependency that may impact on an investment.

Linkage can also be a circumstance where duplication of purpose exists.

If Linkage is applicable:

- A description of any dependencies and duplications should be given;
- It is assumed that a basic amount of information about the dependency will be provided, for example the dependency should be name or organisation specific.

If the investment is influenced by an external dependency, the importance of that dependency should be considered as well as how changeable it is and scored accordingly.

Key Questions:

How high is the risk posed to the investment by internal and/or external dependencies?

Is there any duplication among investments which would add/detract to the risk?

Linkage Scoring System

Risk Rating		Description:
L O W	1	No linkage or duplication present. Internal linkage clearly understood and contained with no associated risk.
	2	Linkage name or organisation specific. Identifies the level and extent of the dependency. The dependency has been adequately risk assessed and is of low risk. Identifies the extent of duplication of purpose if relevant.
	3	External dependency identified and is of low risk.
M E D I U M	4-5	Extent of the linkage to an internal dependency is made clear but it has not been value and risk assessed.
	6-7	Linked to an external dependency, the external dependency is not high risk but the level of linkage is not sufficiently clarified. Linkage to an internal dependency but too little detail given.
H I G H	8-9	Dependent on a highly changeable external dependency. Dependent on an internal dependency which is of high risk.
	10	Linkage to other investments identified, but non specific: no name or organisation given.

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7.6 Attribute: Measurability – Risk

Measurability is the means used to establish the success of the investment for example:

- A basic financial forecast.
- Targets to measure, ie. sales volumes.
- Results of the investment should be evident for example clear physical delivery milestones, i.e. commission system X on date Y;
- Clear benefit delivery milestones, for example, X number of new customers recruited by Y date;
- If applicable, Key Performance Indicators (KPIs) will be identified. KPIs will move as a result of the impact made by the investment.

If the documentation fails to set out a clear measurement framework which gives rise to concerns about management, control, and demonstrating success; a high risk rating should be given.

Measurability Scoring System

Risk Rating		Description:
L O W	1	The means to manage all the key parts of the investment are in place. These means will also measure success. A clear financial plan is in place and if appropriate targets are identified. Clear physical delivery and benefit milestones should be in place and KPIs if appropriate for the duration of the investment. To award a “1” above means must to be sufficiently detailed and comprehensive.
	2	The means to manage all the key parts of the investment are in place. Every element of the investment that needs to be measured is outlined and the means to measure success described clearly. Date specific measurability for the duration of the project.
	3	Sufficient date specific measurability for the duration of the project, with adequate detail to show that the investment will be managed and measured successfully.
M E D I U M	4-5	Appropriate means in place to measure the investment, date specific but not adequately broken down into the physical delivery of the investment and benefits to be deemed low risk.
	6-7	Appropriate means in place to measure the investment but not date specific.
H I G H	8-9	Measurability is identified but is too vague to show adequately how the investment will be measured.
	10	No means to manage the key parts of the investment, or to measure success – clearly inadequate provision for measurability.

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7.7 Attribute: Accountability - Risk

The investment documentation should be clear about who is responsible for both the investment's implementation and, if separate, responsible for delivering its benefits.

Accountability either exists or does not exist, the scoring reflects this; the score can only be 1 or 10.

Key Question:

Is there adequate accountability for delivery of the investment and delivery of the benefits?

Accountability Scoring System

Investment Input Type	Risk	
	Low (1)	High (10)
D0 / D1	A named investment sponsor	No named investment sponsor
Live Investment Document	Accountability given for both the physical delivery of the investment <i>and</i> the delivery of its benefits	No Accountability <i>or</i> Accountability is only given for <i>one</i> of the two: physical delivery <i>or</i> benefits delivery.

8. Appendix II Glossary of Financial Terms

- **REVENUE** is the inflow of assets from selling goods and providing services to customers; including the reduction of liabilities from selling goods and providing services to customers.
- **SG&A** refers to the indirect overhead costs contained within the Sales, General and Administrative expense / cost categories.
- **CoS** refers to the Cost of Sales, including one-off costs.
- **EBITDA** means Earnings before Interest, Taxes, Depreciation and Amortisation, but after all product / service, sales and overhead (SG&A) costs are accounted for. Sometimes referred to as Operational Cash Flow.
- **NET PRESENT VALUE (NPV)** is a method used in evaluating investments, whereby the net present value of all cash outflows (such as the cost of the investment) and cash inflows (returns) is calculated using a given discount rate, usually a required rate of return. An investment is acceptable if the NPV is positive. In capital budgeting, the discount rate used is called the hurdle rate and is usually equal to the incremental cost of capital.
- **INTERNAL RATE OF RETURN (IRR)**, also called discounted cash flow rate of return, is used as an indicator of efficiency for an investment. Expressed as a percentage, it is the internal discount rate that makes the net present value of income equal to zero. It is desirable that the IRR is greater than the Hurdle Rate, as the project is more likely to make a positive return on the investment. It can be considered as the rate of growth an investment is expected to generate.
- **RETURN ON INVESTMENT (ROI)** is a profitability measure that evaluates the performance of an investment. ROI can be calculated in various ways, provided the basis for calculation is clear and consistent the particular means used is not as important as the insight provided by the ratio. Given the fact that a number of the BTB investments seen to date are largely changes in price it does not seem appropriate to calculate ROI based on the size of the investment but rather on the total cost. So, in this instance we are calculating ROI as follows:

Total Revenue – Total Cost / Total Cost

- **PROFITABILITY INDEX (PI)**, or profit investment ratio, is a measure to identify the value created by an investment. It is calculated by the present value (PV) of future cash flows divided by the PV of the initial investment. Ideally, an investment should have a positive index figure (>1) to make the investment worthwhile.