intrafocus

KEY PERFORMANCE INDICATORS

Developing Meaningful KPIs



Table of Contents

Table of Contents	1
Introduction	2
Successful Strategy Implementation	2
Developing Meaningful KPIs	2
Performance Measures/KPIs	3
What are Performance Measures/KPIs?	3
The Methodology	4
Step 1 – Create Objective	4
Step 2 – Describe Results	6
Step 3 – Identify Measures	8
Step 4 – Define Thresholds	16
Step 5 – Upload Structure/Data into a System	21
Step 6 – Interpret Results	25
Step 7 – Take Action	34
In Conclusion	38

Introduction

Successful Strategy Implementation

The success of a strategy is not determined by its definition and documentation. Some of the greatest strategies have been defined carefully with great thought and insight. They are masterpieces that could not be faulted other than being left on the shelf in head-offices around the world and never implemented. Most companies and organisations are good at *defining* strategy; very few are good at successfully *implementing* strategy.

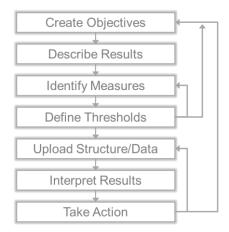
When a strategy has been defined one of the most troublesome tasks an organisation faces (and is often the reason implementation fail) is developing meaningful objectives and their associated key performance indicators (KPIs). This task has to be structured. Without a good methodology to create Objectives and KPIs, a strategy will never be successfully implemented.

Developing Meaningful KPIs

The following methodology provides a guide through the process of developing clear objectives and key performance indicators (KPIs) to support a strategy. It describes the processes to ensure that KPIs have targets and owners. It shows how to build KPIs that provide evidence that objectives are being met, (or not!)

It does not end there though. Once KPIs have been defined, they need to be presented in a way that will ensure accurate interpretation. The methodology provides examples of KPI automation that show how to link interpretation to action thus moving an organisation closer to its objectives and ultimately its strategy.

The methodology has seven steps as follows:



This methodology has drawn from decades of in-the-field experience and other published methodologies including Stacy Barr's *PuMP® Performance Measure Blueprint* and The Balanced Scorecard Institute's *Nine Steps to Success™*. Our thanks go to Stacey Barr, World Renowned Performance Measure Specialist and Howard Rohm, CEO of the Balanced Scorecard Institute for their clarity in describing the subject of Performance Measurement.

Performance Measures/KPIs

What are Performance Measures/KPIs?

In business, government and non-profit organisations we measure a multitude of things. We do this to keep on track, to make improvements and to drive our strategy. Unfortunately, often where we think we have a decent set of key performance indicators, actually we have a hotchpotch of tasks, objectives and projects with a few badly described metrics. So what is a performance measure/KPI?

Note: A Key Performance Indicator (KPI) is often referred to as a Performance Measure or a Measure or a Metric. This is perfectly valid, the important thing is the definition not the label, if Metric is term generally used in your organisation, then use it. In a formal Balanced Scorecard structure, as defined by the Balanced Scorecard Institute, the term Performance Measure is used. More frequently in business KPI is used. For the purpose of brevity, the term 'KPI' will be used throughout this document.

A Key Performance Indicator is something that can be counted and compared; it provides evidence of the degree to which an objective is being attained over a specified time.

The definition above includes a set of words that need further explanation to ensure the statement is fully understood:

Counted: This may seem a little trite, however, counted means that a quantity can be assigned. Examples of quantity are number, percentage or currency. It does not mean a *percentage achievement*. One of the most frequent mistakes in setting KPIs is to create a project and assess its success through how much work has been done. Just because a project has completed does not mean it has been a success. Success is dependent on the outcome not the activity.

Compared: A number or value may be interesting but it only becomes useful when it is compared to what is optimal, acceptable or unacceptable. Every KPI must have a comparator or benchmark. Using an industry benchmark gives an objective quality to the comparator, objectivity is not required, but it is desirable.

Evidence: The evidence will fall out by 'counting' and 'comparing' correctly. It is important to strive for a measure that will be observed in the same way by all stakeholders. The evidence should be clear and have specific meaning.

Objective: A KPI only has significance if it is contributing to an objective. If there is no objective, why is it being measured in the first place? This does not mean we should ignore all operational measures; they still need to be in place – but even operational measures should ultimately contribute to an objective.

Specified Time: Everything is time bound; progress towards meeting an objective and therefore a strategy must be measured over a specified period of time.

The Methodology

The design of this methodology for developing meaningful KPIs is based on years of experience in this field. The methodology is aimed at companies and organisations that already have a defined strategy and a reasonable idea about what their primary objectives are. The methodology has seven steps and utilises the templates that follow in this document. Steps 5 and 6 are illustrated using an automation system called QuickScore. It is not the only automation system available in the market. It has been used to provide an insight into the advantages software automation bring to managing performance data.

In any business performance management system, the data added into the system has to help drive the business forward. It is tempting to measure far too much and not be specific in the hope the system will 'sort it out'. The following methodology ensures the right activities are pursued.

The key is to start small, even as small as a single objective will do. Once practiced in creating a few successful objectives and KPIs, then a company-wide challenge can be taken.

Steps 1-4 of the methodology is template driven, these steps will be completed several times. The first time through may take a while, thereafter, it becomes much simpler.

Steps 5-7 are more descriptive.

Step 1 - Create Objective

The Golden Rule: KPIs are based on objectives. A KPI should not exist unless it contributes to an objective. It is true that the thought processes that go into creating KPIs and objectives can move so quickly that these activities may run in parallel, nevertheless, a KPI should not exist without an objective.

Write down an objective that will result in a business improvement:

Objective			

Here are a couple examples that you may have considered:

- Increase company profit
- Increase revenue by 10% next year

These are great objectives and easily measurable and starting at the top is admirable.



However, think about some objectives that can be more easily controlled to contribute to these top-line goals, for example:

- Increase the number of projects worth £250k or more
- Improve skill level of senior consultants
- Implement a sales plan

As this stage it is not important to be precise, the next stage will crisp up the objectives.

Thought should be put into how the objective will contribute to an overall strategy; whether or not your organisation has any control over the objective (it's best to have some level of control); that the objective is a single objective and not several under the guise of a single objective and finally it should be something that is important and in need of attention.

Go back to the objective you have chosen and check:

- 1. It will contribute to the company/organisation strategy
- 2. It is important and will it make a difference
- 3. It is a single objective
- 4. You have some level of control to influence the result
- 5. It is something that can be measured

If required, refine the objective, it does not have to be perfect. Move on to step 2.

Step 2 - Describe Results

Earlier, in the section that defined a KPI, it was noted that one of the most common mistakes in definition is to focus on *activities* rather than *results*. Objectives, like KPIs, are concerned with results. It is essential to create a result for each objective using a results-oriented language. This forces us to think more precisely about what we are actually trying to achieve.

For example, if we look at one of the objectives given above 'Implement a sales plan' this may seem as a very sensible thing to do but it is **not** a performance objective. It is an activity that can only be measured through the time it takes to implement the plan. It will tell us nothing about success or failure of the plan relative to the business strategy.

[Important note: Activities, initiatives and projects *are* important. They are the means by which we implement change to make improvements. We can measure things until the end of time but that will not change our results. Unless we know where we are today and where we want to be tomorrow any change activity will *only* have a positive impact through pure chance. Therefore we need results-oriented objectives]

The previous example might be more useful if it included **why** we want to implement a sales plan. It may be 'to reduce the sales cycle'. This is still a bit vague and may be better expressed as 'to reduce the time taken to convert a qualified lead into a sale'. This is much better and has produced and objective with a tangible result. This also illustrates the need to bring clarity into the language we use to create our objectives. That is, what are we actually trying to achieve?

In business we have a tendency to use words and phrases like 'best practice, optimised, world class, efficient, effective, productive. Although the implied meaning is positive, the actual meaning is vague. Objectives using these words are not results-oriented and will therefore always fall short if used when related to performance improvement. It is always better to use words that have common meaning and cannot be vaguely interpreted.

Using words that relate to how we physically perceive things in the world is a good technique to sense-check you are on the right track. Using our previous example; 'reduce the time taken to convert a qualified lead into a sale' if we think about how we would physically perceive this, it would almost certainly take us down the route of asking the question; in what time-scale do we mean? This in turn would lead to a more succinct expression that would include a physical parameter, for example: 'reduce the number of days to convert a qualified lead into a sale'. We now have an objective that describes a result, has clarity in interpretation and in this case has a time parameter.

At this stage it is not important to go so far as including a target within the objective. It would have been easy to express our example as "reduce the number of days to convert a qualified lead to a sale from 30 to 25'. Targets are the domain of the measure rather than the objective. When we look at measures in the next step we will look closely at how to set targets in the context of viable comparators or benchmarks.

In summary, the step 2 task is to:

1. Check that the objective is an objective (not an activity, plan or project)



- 2. Frame the objective using result-oriented language
- 3. Remove vague words and include things that can be physically perceived

Examples:

Original Objective	Result Oriented	Physically Perceived
Implement a sales plan	Reduce the time taken to convert a qualified lead into a sale	Reduce the number of days to convert a qualified lead into a sale
All senior consultants to be trained to deliver results chain analysis	Improve skill level of all senior consultants to deliver results chain analysis	Improve skill level of all senior consultants to stage 2 accreditation in results chain analysis or above
Increase the number of projects worth 250k or more	Increase the number of projects worth £250k or more*	Increase the number of consultancy projects worth more £250k in revenue

^{*}Note: Not everything has to be improved or modified. As you get better at this process you will automatically start creating results-oriented objectives.

Enter up to three objectives and go through the process of refining them into resultsoriented objectives that are clearly defined with physical perceived outcomes:

Original Objective	Result Oriented	Physically Perceived

If you are happy with these objectives, go to step 3. If this process has revealed you are looking at the wrong things loop back to step 1.

Step 3 - Identify Measures

There are three key activities that need to occur when identifying a measure:

- 1. The measure needs to be clearly described (and based on an objective)
- 2. The measure needs to be rated in terms of importance
- 3. The measure needs to be calculated and ownership assigned

The measure needs to be clearly described – it does not matter at the moment if lots of words are used to describe a KPI. Later on the short 'label' will be created for convenience. For now it just needs to have a very clear description and therefore will end up as a statement or short sentence. Start with one of the objectives previously defined.

Next, focus on the 'physically perceived' part of the objective, this will give you a clue as to the 'tangible' things you need to measure. In the example above "Reduce the number of days to convert a qualified lead into a sale" the tangible items are 'days' and 'qualified leads' and 'sales'. These are the things that can be measured and will be included in the final KPI. At a later point we will include descriptions for each of the 'tangible' items.

A word of warning: don't at this point simply go back to what you are measuring already and say something like 'got that covered, we already have a lead to sales ratio'. It may be that you do have it covered, however, it is more likely that the particular KPI you are thinking of was created years ago based on a formula that is no longer relevant. Clearly this will not be true of all KPIs, but the check needs to be made.

It is now time to consider 'lead' and 'lag' KPIs. All too often our KPIs concentrate on 'lag' measures. That is, those measures that occur after the event. Typically, financial measures fall into this category, revenue, gross margin, profit and costs are all things that we measure after an event has happened. We need to do this as we can learn and adjust, but the act of measurement does not cause change. Why do we concentrate on lag measures? Simply because they are easy to count and provide proof of success or failure. If I get on the scales they tell me whether or not I have lost or gained weight. If my objective is to lose weight, getting on the scales has not helped. However, if I measure how many times I go for a run and how much I have eaten (and plan for this) then I have put in place two 'lead' measures that will help me succeed. Lead measures are harder to identify but they are the **only** measures that can be influenced and therefore make a difference.

We must not underestimate the importance of lead measures when identifying and describing our KPIs. It may take a little longer to identify these measures but it is worth the effort in the long run. Even if they are discarded they may provide additional insight into the way an organisation is being run.

The final quality of a typical *lead* measure is that it may not hold a guarantee of success. In the following example; 'The number of sales people trained in selling our products to grade III certification' we believe that this will have a positive impact on our objective, because common sense dictates that trained people will perform better than untrained people, but we will only have the proof when we see a positive change in the *lag* other measures.



The tangible parts of the objective need to be written into a KPI that describes something that can actually be counted and relates back to the objective. For example:

Objective	KPI – Description
Reduce the number of	The average number of days between a qualified lead and a sale
days to convert a qualified lead into a	or
sale	The average number of days between qualified leads and sales
	that result in an order value greater than £250k
	or
	The percentage of sales generated within 30 days of lead qualification
	or
	The number of sales people trained in selling our products to grade III certification (note this is a 'lead' measure)

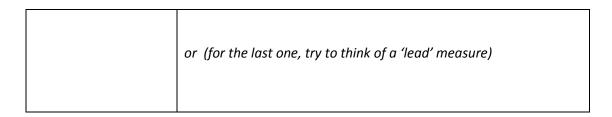
As can be seen from the above, each KPI is relevant to the objective but is measuring it in a slightly different way. Also, we can see that the measure *type* has been added, in the cases above 'average' and 'percentage'. Furthermore we can see that a calculation is beginning to form, the KPI calculation is a very important part of the identification as it provides the scientific/objective basis for its accuracy.

For now, let's concentrate on the description, the key things to remember are;

- Write the description in the form of a sentence
- Include the 'tangible' words, the things that can be counted
- Don't immediately think you have 'got it covered'
- Think in terms of a calculation that will be performed

Write down an objective and two or three candidate KPIs:

Objective	KPI – Description
	or
	or



The measure needs to be rated in terms of importance – Time and effort should be put into rating KPIs. It is important to ensure the right things are measured. A relatively simple process can be used to build a decision matrix, start with the following:

- How applicable the measure is to a related business objective
- The relative worth of each measure, do you really need to know
- The ease by which data can be found to make the measurement

For each KPI ask the three questions above (in order, more later) and rate them High Medium or Low. As a guide the use the following:

For Applicability:

- High This measure will give me enough information to determine whether or not we are achieving this business objective
- Medium This measure will give me enough information to make an informed decision as to whether or not the business objective has been met, provided it is augmented with some additional information or another measure
- Low This measure will not give me very much information at all and at best will allow me to make a reasonable guess

For Relative Worth

- High This measure is really important to the business because it; 1. Is a top-line indicator e.g. Profit or 2. Is important to our shareholder/stakeholders regardless of its association with any business objectives
- Medium This measure is not specifically associated with any business objectives but it can/does contribute to the effectiveness of other KPIs
- Low This measure has been asked for but does not significantly contribute to very much

For Ease of Identification

 High – This measure is already available in existing data systems or can be calculated easily from existing information in existing data systems

- Medium This measure does not exist and would require a new process to be put in place to collect the information. The task would not be onerous and would be worth the effort
- Low This measure does not exist and would require a significant change to working practices that would seem unreasonable at this time

The matrix for a few sample KPIs might end up looking something like this:

Performance Measure/KPI	Applicability	Worth	Identify
The average number of days between a qualified lead and a sale	Low	Medium	Medium
The number of sales people trained in selling our product portfolio to grade III certification	Medium	Low	Medium
The percentage of sales generated within 30 days of lead qualification	Medium	Low	Low
The number of days between qualified leads and sales that result in an order value greater than £250k	High	High	Medium

The immediate result of creating a matrix such as the one above is the ability to exclude measures quickly. For example, we can see that the first measure has a low Applicability rating. In general all Low applicability rated measures would be discounted. The only time this might not be the case would be when there was pressure from stakeholders (High worth) to include a measure. The two low ratings on the third measure also indicate that this measure should be discarded.

Build a matrix for you measures:

Performance Measure/KPI	Applicability	Worth	Identify
KPI 1			
KPI 2			
KPI 3			
KPI 4			



This exercise has to be gone through and it is essential that there is general agreement, but at the end of the day someone will have to make a decision based on the needs of the business. The table above provides supporting evidence that the correct process has been gone through to choose one measure over another, however, the important thing is to get agreement that a rational choice has been made. Using one of our examples above, you could imagine the rationalisation behind a decision could go something like this:

KPI	Rationalisation
The average number of	80% of our business comes from projects greater than
days between qualified	£250k, these customers are important to us. In general, the
leads and sales that result	remaining 20% are very small customers and tend not to
in an order value greater	lead to larger sales. This together with the difficulty in
than £250k	tracking sales to very small customers means we should
	count the lead to sale conversion for our high-end customers

Choose your KPI:

KPI	Rationalisation

The above should provide the basis for focused effort and most importantly generate the right levels of discussion to ultimately gain agreement from all parties as to the inclusion/exclusion of KPIs for the business.

The measure needs to be calculated and ownership assigned – Ownership and calculation have been put together intentionally. Practically speaking, assigning ownership of a KPI should be undertaken before the calculation is made to ensure the right person is responsible for the activity. This begins to highlight the importance of ownership. To get anything done, all objectives and KPIs must have owners and that means an individual not an entity such as a department.

There are two types of ownership we need to concern ourselves with: Owners and Updaters. An owner is the person who takes full responsibility for the KPI. The updater (who could be the owner as well) is the person who gathers the required data and updates the KPI when required.

An effective owner should:

- Have some level of control over the KPI
- Own or actively contribute to the KPI's objective
- Agree to own the KPI (and not just be assigned to it)
- Know where to acquire the measurement data
- Ensure the KPI is updated on time with valid data

An owner who is in a position to comply with the above is much more likely to take the job of managing the KPI seriously.

All too often, KPIs are foisted upon individuals who have no real control or interest in the measure itself (or the associated objective) and therefore update the information begrudgingly, or worse, with incorrect information.

The first job of the owner is to ensure that the KPI is properly described, that there is agreement on the validity (i.e. the right measure has been chosen) and that the KPI calculation (if there is one) can be based on available data. Available data in this context can mean data that will be made available in the future as well as existing data.

Using the example we have chosen above "The average number of days between qualified leads and sales that result in an order value greater than £250k', let's see what this means in practical terms. The KPI description usually provides enough information to give an indication as to where the data being measured resides. For example, in the KPI 'Total revenue generated for consultancy services' the data will almost certainly reside in the company financial system. In the case of our example, a calculation will be required and therefore the collection of data may be a little more complicated.

For each KPI the following things need to be taken into consideration:

- **Description:** A sentence to describe as accurately as possible what the KPI is for.
- Label: The short description, used for presentational purposes, generally 1-5 words.
- Owner: The individual who owns and will drive the KPI (this applies equally to
 objectives, indeed, ownership of objectives is more important than ownership of
 KPIs as the former drives the latter).
- **Updater:** The individual who is responsible for updating the KPI at the pre-defined times.
- **Calculation:** A mathematical formula that describes how the data elements (tangible perceivable items) are combined to provide a number, percentage or currency (sometimes a yes/no).
- Frequency: How often the KPI is counted and recorded.



- **Scope:** What should be included or discounted, often a cap or data range.
- **Metrics:** The data and the sources of data used in the calculation, it is important to provide a description of the metric items individually to avoid ambiguity.

It is only when looking closely at a KPI requiring a calculation that it becomes evident all of the information above is required. It is good practice to identify and record this information for every KPI during this phase. Typically a table, such as the one below, can be used:

Objective and Result				
Objective	Reduce large order sales cycle			
Intended result	Reduce the number of days to sell a large order			
Key Performance	Indicator			
KPI Label:	Large order sales cycle			
Description:	The average number of days between qualified leads and sales that			
	result in an order value greater than £250k			
Owner:	Jim Jones			
Updater:	Jill Johnson			
Frequency:	Monthly			
Scope	For sales that occur during the reporting month			
Calculation:	In a single Month , for all sales greater than £250k; add the number of			
	days between the qualified lead date subtracted by the sales date and			
	divide by the number of sales greater than £250k			
Metrics used in	Qualified lead date – the date assigned to a lead moving to stage 3			
the calculation:	(qualified lead) in the sales management system			
	Sales date – the date assigned to a lead moving to stage 6 (sale) in			
	the sales management system			
	Sale greater than £250k – sale recorded in the finance system as			
	having been invoiced and worth more than £250k			
	Month – Business reporting month = calendar month			



Describe your KPI in the same way:

Objective and Result			
Objective			
Intended result			
Key Performance Indicator			
KPI Label:			
Description:			
Owner:			
Updater:			
Frequency:			
Scope			
Calculation:			
Metrics used in	•		
the calculation:			
	•		

In summary, when calculating a KPI and assigning ownership take care to:

- Assign the right owners, it is the only way to ensure things will get done
- Create a realistic calculation that is based on metrics that exist or can be found
- Be realistic about frequency, not everything has to be done in real-time!

Getting to this stage can take a while; it gets a lot easier and much faster after the second or third go. When you have 3 or 4 KPIs go to step 4.

Step 4 - Define Thresholds

A Key Performance Indicator has limited value unless it can be compared to something.

There may be some value as a record of change over time; however, unless it is known what sort of change is required, even this has little value. A KPI without a comparator can be used to help stabilise performance. For example, with a new process it is often the case actual values will vary wildly month on month until a process is bedded in. We may not know what a valid variance should be but simply recording the values will eventually provide enough data to generate an upper limit and a lower limit. So eventually, even a KPI without a comparator will create values to be compared to! These limits will become 'thresholds'.

Thresholds are frequently based on targets. This can be an area of contention in business performance management circles. Targets are often set using arbitrary methods or justified using unhelpful interpretations of data. However, targets can be helpful when starting the process of defining thresholds. The key point about any target is that it needs to be reasonable and achievable.

Targets and thresholds are well understood when looking at financial measures. We often look at a 'variance' (threshold) to an expected result (target). For example, if expected monthly revenue was £325k and the actual revenue recorded was £309k the variance would be -£16k. This may or may not be a cause for concern depending on what was considered an acceptable variation to the target. For a KPI to be useful we need to clearly state both the acceptable and unacceptable results, that is, the 'thresholds'. There are several threshold models; for the purpose of illustration we will start with the most common: Red, Amber, Green (RAG). In the RAG model there are two threshold points:

- When the KPI should turn Green
- When the KPI should turn Red

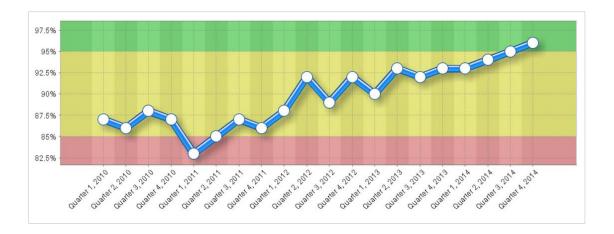
There are no hard and fast rules to the meanings attributed to each of the coloured areas but in general it is as follows:

- Green an acceptable result, we are on target
- Amber there may be a problem, we should investigate
- Red an unacceptable result, there is a *potential* problem that needs rectification

By using an example KPI, for instance "Customer Satisfaction Survey Percentage" we can illustrate using the following threshold values:

- Green 95%
- Red 85%

When these KPIs together with thresholds are entered into a performance management system the result might look like this:



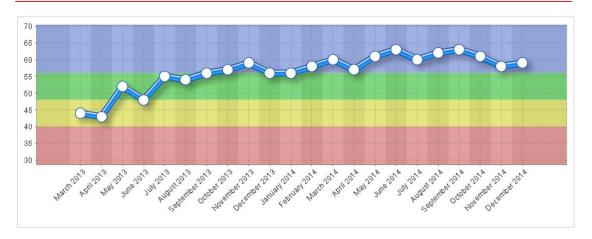
As can be seen, by setting threshold values the viewer can instantly and very graphically see the current situation and more importantly the history leading to this point. History provides a context to better understand the performance of the KPI, more of this in chapter 6.

Out of the numerous threshold models there are two more that should be looked at. The first is a simple extension of the RAG model, the second a variant that accommodates measures that are not linear in nature.

Often there is a need to get a better understanding of an 'over-achieved' status. This is particularly true in the area of sales and client management. Sales bonuses may be based on not only achieving a target but over-achieving it as well. It may be desirable to over-achieve in client management engagement where non-sales time spent with a client is deemed to be a positive activity. In this case an extension of the RAG model can be used; the Red, Amber, Green, Blue variant. For RAGB it is normal to set five thresholds:

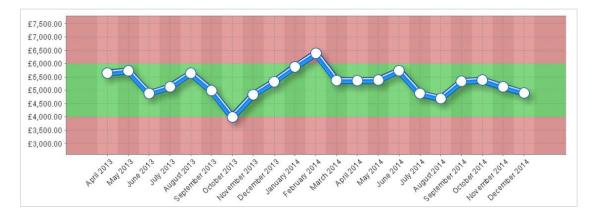
- The lowest acceptable result
- When the KPI should turn Red
- When the KPI should turn Green
- When the KPI should turn Blue
- The highest acceptable (or capped) result

Using this type of threshold model, a pre-determined over-achieved status can be monitored and managed. Using the example of client engagement management and looking at a KPI of 'Average hour's client engagement per month', the result might look something like this:



Here we can see that in March 2013 the KPI fell into the Amber and has been steadily climbing through the Green and into the Blue. With eight data points in the Blue, we may want to think about resetting the thresholds (More in chapter 6)

The third threshold example is the 'stabilise' KPI. Occasionally KPIs are deemed unacceptable if the result is either too high or too low. A good example is a training budget. In training we want to spend to the budget but not exceed or go below the budget. In this case we define what the 'best' result is and then determine acceptable and non-acceptable results below and above best. Using the example of a training budget, the result might look like this:



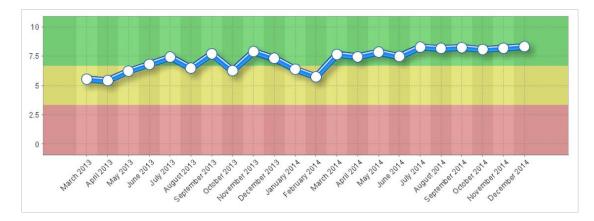
Here we can see Red boundaries around the acceptable values of £4,000 to £6,000 per month. The KPI appears to be performing within the boundaries with one exception.

One of the by-products of defining thresholds is the ability to turn the KPI into a relative score. In the three examples above, the first was a percentage, the second was a number (hours) and the third a currency. Each had defined thresholds. A performance management system can take this information and create a calculation to 'normalise' the data and then turn it into a common score, for example between 1-10. With a normalised score, the scores across the system can be rolled up to higher levels.

The normalised scores can then be averaged by the system and an Objective score presented. This in turn could be rolled up with other Objectives to a Group or Perspective score, which in turn could be rolled up to department or company score. To illustrate this



point, the following chart shows the combined normalised scores for the KPIs examples we have used above in the form of the Objective 'Improve Customer Satisfaction':



Here we can see a combined normalised score out of 10. The Objective, which is measured through the success (or failure) of the three KPIs can now be seen as a chart in its own right.

Therefore, we need to add the final elements to our KPI definition. Using the 'large order sales cycle' example it will look like this:

Objective and Result			
Objective	Reduce large order sales cycle		
Intended result	Reduce the number of days to sell a large order		
Key Performance	e Indicator		
KPI Label:	Large order sales cycle		
Description:	The average number of days between qualified leads and sales that result in an order value greater than £250k		
Owner:	Jim Jones		
Updater:	Jill Johnson		
Frequency:	Monthly		
Scope	For sales that occur during the reporting month		
Calculation:	All of (qualified lead date – sales date) / number of sales greater than £250k		
Metrics used in the calculation:	 Qualified lead date – the date assigned to a lead moving to stage 3 (qualified lead) in the sales management system Sales date – the date assigned to a lead moving to stage 6 (sale) in 		
	the sales management system		



		 Sale greater than £250k – sale recorded in the finance system as having been invoiced and worth more than £250k 			
	Month – Business reporting month = calendar month				
Thresholds	Worst	Red	Green/Best	Blue	Best/Cap

Add the thresholds for your KPI description:

Objective and Result					
Objective					
Intended result					
Key Performance	Indicator				
KPI Label:					
Description:					
Owner:					
Updater:					
Frequency:					
Scope					
Calculation:					
Metrics used in	•				
the calculation:					
	•				
	•				
Thresholds	Worst	Red	Green/Best	Blue	Best/Cap

Once you have defined the threshold values for a number of KPIs go to step 5.

Step 5 - Upload Structure/Data into a System

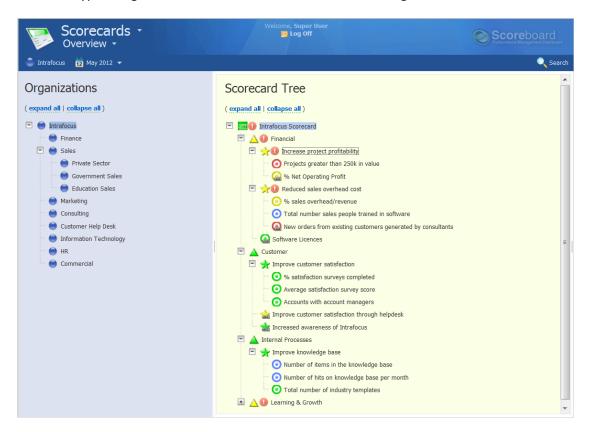
It is at this stage that objectives and metrics can be loaded into a dedicated performance management system. It is possible to manage your KPIs using a spreadsheet, however, spreadsheets are notoriously difficult to centralise and maintain. Given there are numerous cost effective options available we would **not** recommend the use of spreadsheets (except for setup and trial purposes).

There are two parts to step 5:

- 1. Creating a scorecard (Organisation/Perspective/Objective/KPI) structure
- 2. Uploading or entering data on a regular basis

Creating a Scorecard Structure - This requires some thought. At a later date you may want to restrict access to certain parts of your structure. Most performance management systems will allow you to move things around so don't be too concerned about getting the structure perfect, just keep permission allocation in mind. In most cases the overall structure can be based on your organisational structure or a matrix or a combination of both. Experience suggests that at the HQ strategic level a balanced scorecard approach is best and that this is supplemented by a divisional/departmental sub-structure that feeds KPIs into the top level.

For the purpose of illustration we will be using the QuickScore performance management system. This starts with a 'node' structure upon which all permissions to the system are based. A typical organisational/balanced scorecard structure might look like this:

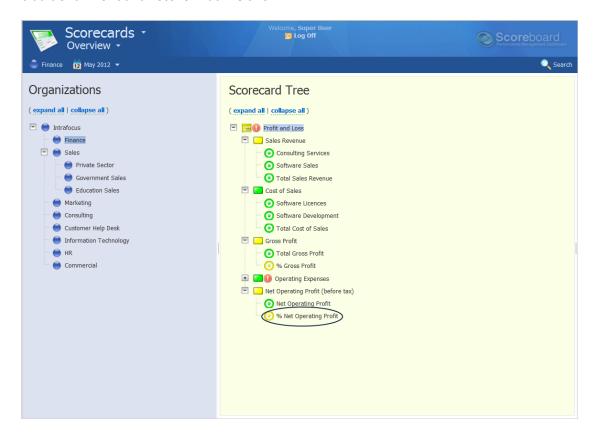


On the left are the organisational nodes and on the right the Perspective, Objectives and KPIs for the selected node. In this case the company HQ balanced scorecard is set out in the



classic four perspectives: Financial, Customer, Internal Processes and Learning & Growth. You will notice that there are symbols denoting the perspectives (triangles), the objectives (stars) and the KPIs (circles) and each is colour coded to reflect the current status of the object.

You may also notice that one or two of the KPIs have a small 'link' sign, for example '% Operating Profit'. This indicates that the KPI, although in the balanced scorecard, resides somewhere else. ** Operating Profit resides in the Finance department (the organisation node is a blue dot on the left). The scorecard structure in the Finance department follows a traditional Profit and Loss format like this:

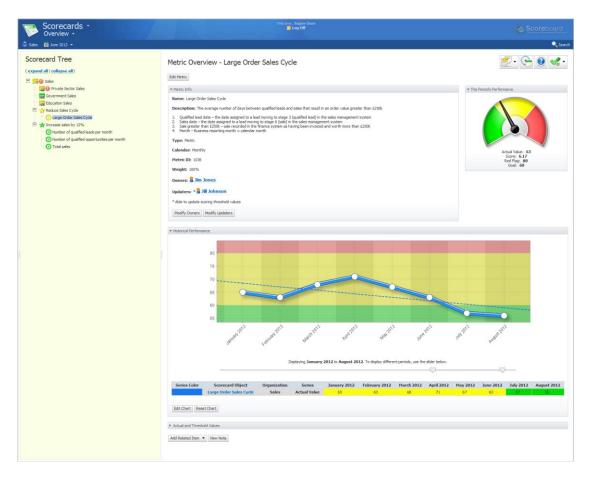


Although you should not consider all of the *metrics* in a profit and loss statement to be KPIs, it is the one area where it is sometimes useful to hold a copy of a full set of financial metrics to allow drill down as and when detail is required. Update of a monthly P&L or balance sheet to a performance management system is usually a trivial task.

Once you have decided on the overall structure you can build the system. Most systems will allow you to manually create the structure and some will allow you to create the structure in a spreadsheet template and then upload it. The latter approach is less time consuming and can allow you to setup and tear down structures quickly and therefore introduces the means to experiment if required.

When looking at performance management systems, be sure to check they allow you to input **all** of the data in the KPI Description tables you have created above for each of your KPIs.

Using our example "Large order sales cycle" we can see from the example below where all of the data resides:



In summary, to create a structure for your scorecard, answer the following questions:

- Who will be looking at the system and what do I want them to see? This will provide the first insight. If there are areas you want to restrict access to e.g. a financial balance sheet, place them in an organisational node by themselves.
- Do I want a cross-organisational view? In which case think about a balanced scorecard approach
- Do I want a strategic scorecard and departmental scorecards? This is a traditional approach, it allows you to maintain a few strategic measures (a good thing) and allows department heads the flexibility to measure other things that may be important to their departments.

Once again, start small. Work on a few objectives and a few measures, get proficient, you can always add more.

The second part of step 5 is to look at how the data is entered or uploaded into the system

Uploading or entering data on a regular basis. This should be easy. If you have followed the previous guidance you will only have three or four objectives and each will have no more than three KPIs. A maximum of twelve items to update! There is a very good chance you will



have many more KPIs. It is never a surprise that companies want to measure much, much more than is necessary. This being the case you need to look very carefully at two things:

- How frequently updates take place
- How to automate updates where required

Frequency - Previously we included a 'Frequency' item in our KPI description but did not say much about it. We are living in a 'now' world and as such we often feel it is important to know what is happening at this very moment. This forces us down a route of measuring things in 'real-time'. Operationally this may be very important. On a production line you need to know about the health of the product at every stage of the manufacturing process. However, strategically this is of little importance. What may be important is the *result* of the measurement, for example the number of defects per week or per month. All businesses are different, but as a guide:

KPIs should be part of the monthly management reporting cycle; occasionally there may be a need to measure things weekly and rarely, under extraordinary circumstances, daily.

Why? The time it takes to implement a corrective action means even for a small light-of-foot business, the time to react will be days or weeks and not hours.

Updates – whether to automate or not will become a trade-off between the expense of building an automated system and value of the 'released' time of the individuals that are in the firing line to update the system on a regular basis. Most Corporate Performance Management systems will provide built-in automation capability to allow a direct connection to spreadsheets, databases and in some cases to the more popular back-end ERP systems. This is useful particularly if you want to include metrics (as distinct to KPIs) as part of the system to allow users to drill down to detail when required. A good example of this may be an end of month financial summary.

This can be easily achieved. The simplest way is to dump the financial data to a spreadsheet of a specified format, place the spreadsheet into a common area (usually a secure ftp server) and then schedule a regular upload. Typically in an operation like this there will be a one-off task of 'mapping' the spreadsheet data to the appropriate measures you have previously defined in your system.

With financial measures, the metrics could be useful in drill-down scenarios but the job of updating each one manually every month would be tedious. Most financial systems have an 'export to spreadsheet' function, so the data could easily be exported to a spreadsheet and imported into the performance management system. This is a very low-cost mechanism that not only speeds up the process but ensures greater accuracy.

Once you have decided on an update mechanism, be it manual or automated, you can start adding *actual* data to the structure. For the data to be meaningful, you will need at least 5-9 months history. This may mean feeding in some historical data or waiting until there is enough data to work with. You will then be able to move to Step 6.

Step 6 - Interpret Results

Once a there is a useful set of historical *actual* data in a performance management system then it will be possible to effectively interpret the results. There are two phases to this activity, first to create a set of dashboards and reports from the data and second to interpret the results as displayed.

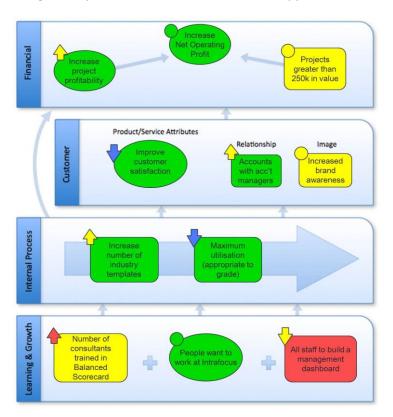
Automated Reporting

The purpose of reporting is to provide enough detail to enable an organisation to be managed effectively. The advantage of using automated reporting in a performance management system is the reports are updated automatically when any KPI value is changed. Care needs to be taken when designing a dashboard or report, the key question to be asked is:

• Who is the audience for the dashboard or report?

Dashboards

All data visualisation has to start with the audience in mind. A chief executive will want a very different view of a business as compared to an operations manager or a financial director. One-size will never fit all in dashboard creation. Typically a dashboard will provide an overview or at-a-glance view of the business. The example below is a classic strategy map using the Kaplan-Norton balanced scorecard approach:

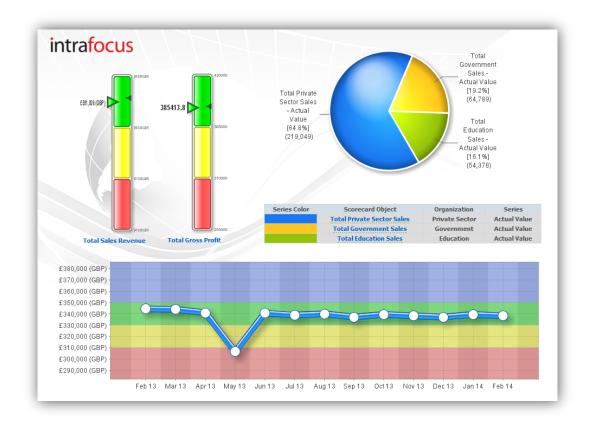


We can immediately see through the 'RAG' and 'RAGB' colours the current status. Also, in this, case there are also arrows and circle symbols that show the status from the previous



month providing us with some limited trend data. The elements can be clicked on to drill-down into lower level objectives and KPIs.

A dashboard might be aimed at a Sales community using a very different format:



Whoever or whatever a dashboard is to be used for, consider the following questions during the creation phase:

- Is the dashboard suited to the audience it is being built for?
- Does the dashboard have an intuitive user interface and navigation?
- If providing drill-down capability, does it provide enough additional information?
- Have the right access permissions been set up?
- Is the balance between current and historical data correct?
- Visually, do the important items stand out?

Finally for dashboard creation; don't get carried away with the technology or a colourful chart, simplicity is the best way to get over a complex message.

Reports

To clarify, for the purpose of this document, reports are classified specifically as row and column representations of data. We are not using the general definition of a report as a document that includes several different formats and commentary.

In a performance management system a metric report might look something like this:



The system makes use of the RAG colouring scheme and provides actual values for each of the selected metrics. This is very similar to a spreadsheet view. Typically, this type of report will be used during a drill-down activity when more information on a KPI is required.

Interpreting Results

Earlier we spent quite some time looking at 'thresholds'. By defining thresholds we provide the means to look at colour-coded KPIs thus allowing us to interpret the data quickly. However, this is not the whole story. We have taken a big step forward but we cannot simply rely on a RAG status to enable an informed decision or to put in place a new plan.

Why? Because businesses are complex entities, no single or identifiable cause can hold the key to a solution. Just because a KPI is 5% down on last month's performance or is different to last year's performance or has gone below an artificially imposed threshold, does not automatically mean there is a problem. It is however, an indicator that there is a potential problem.

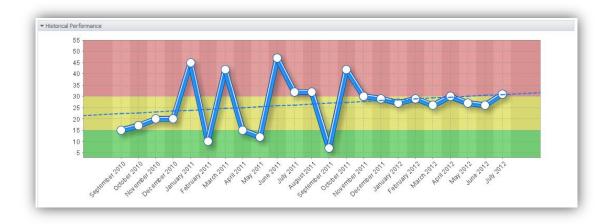
Using thresholds gives us what we need to undertake a 'point' analysis of a KPI. Simply put, if the KPI moves from an acceptable position (green) towards an unacceptable position (red) then there may be a problem. The first line of enquiry should be to ask the 'owner' of the measure for an explanation. If the explanation is reasonable then no action needs to be taken. If not, then the second line of enquiry should be to look at associated KPIs. The rational here is that in business it is rare that poor performance in one area will be isolated; there is usually some form of knock-on effect. If everything else looks fine, then it may simply be an anomaly during the current months reporting. At this point however, it would be prudent to start looking for 'patterns' within the single KPI and across related KPIs. In summary, the process up to this point should be:

- 1. Look for movement towards or into 'red'
- 2. Request an explanation from the KPI owner

- 3. Look at related KPIs (for associated movement to 'red')
- 4. Start to look for patterns within and across KPIs

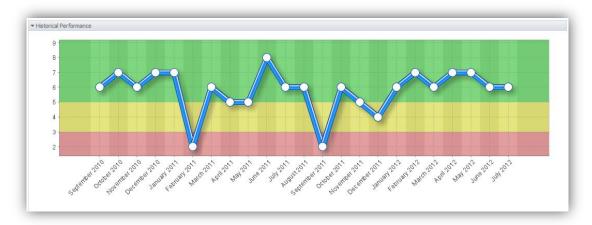
The last item on the list, looking for patterns, is the most crucial when interpreting KPIs. To illustrate this we will use a new example, the metric "The average time to contract in days". This KPI measures the time between a sales order being taken and a contract being finally signed, in days. Driving down contact negotiation time is a common objective as legal/commercial fees are usually priced in hours and can be very expensive.

The first thing to check when looking at a KPI over a period of time is the 'stability' of the measure. In the graph below we can see that during the period January to October 2011 the KPI results were highly erratic. This in itself is a cause for concern. However, it is important to recognise the difference between rectifying 'unpredictable' behaviour and attempting to improve performance. Any business performance improvement plan needs to be based on performance that is reasonably predictable or stable.



In the example above we can see that from November 2011 onwards the historical performance of "Average time to contract in days" has begun to stabilise, the variance is plus or minus 3 days. This provides a good base to think about improvement. It also indicates that something happened in November 2011 to cause this change.

In this instance the change was due to resourcing; up to December 2010 two commercial managers were working for the company, in early January 2011 this was reduced to one. If we look at an associated KPI "Number of sales per month", we can see that during January to October 2011 the time to contract pattern is almost the inverse of the number of sales:

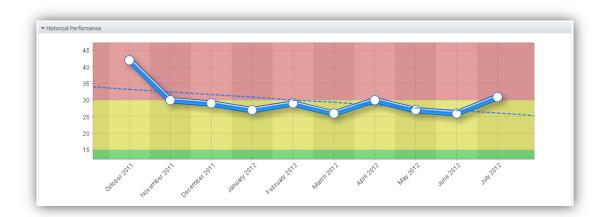


This indicates that when more sales occurred more time was taken to negotiate the contracts. During the 'unstable' period, the commercial manager simply could not cope with the volume of work.

The company added extra resource in November 2011 and the KPI stabilised. However, the long-term trend indicated that the problem had not been solved, the performance was trending to the red and the July 2012 red threshold had been entered. At this point a decision could be taken to do one of three things:

- 1. Live with the problem because it is too costly to fix
- 2. Add further resource in an attempt to resolve the problem
- 3. Change the thresholds because things have moved on

Looking at the three options above may not be the whole story; the latter option forces the need to look at a time period closer to the current date. If we do this and change the date range to October 2011 to July 2012, the result is as follows:



Here we see that although the long-term trend was suggesting an adverse performance swing, the shorter term view (still 10 months long) indicates a positive trend. Although the KPI has veered into the red this month, the trend suggests this is an anomaly and things will get better over time.

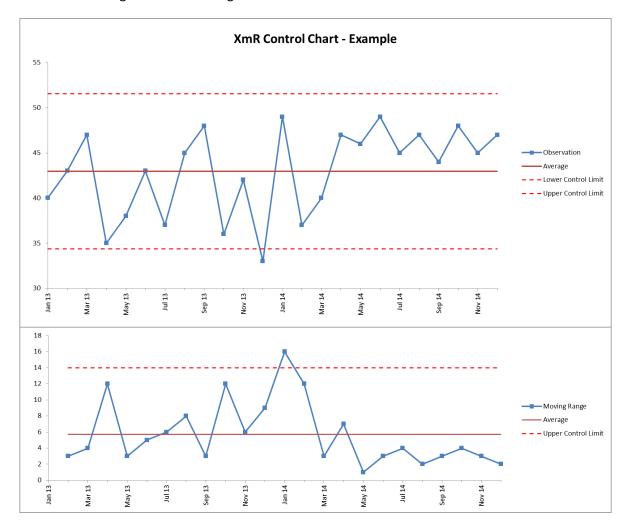
XmR Charts

Using point analysis and trend-lines can be informative but as we have seen from above can also be misleading. A type of chart that is in common use and provides real value is the XmR chart.

XmR Charts fall under the category of control charts used to monitor industrial or business processes. The X stands for 'Individual'. In a manufacturing process this may be a quality of an item produced (or a batch of items) for example the quality of a ball bearing. In a business process this may be a Key Performance Indicator such as customer satisfaction.

The XmR chart is actually two charts. The X is the data point being measured and mR the Moving Range which is the difference between consecutive data point measurements.

An XmR chart might look something like this:



The upper chart (X-Chart) displays the data-points over time (Observation) together with a calculated average (Average). The calculated average is then used to calculate the Upper and Lower Control Limits. The lower chart displays the Moving Range (mR-Chart) with its Average and Upper Control Limit. There is no lower control limit as the value of the



difference between consecutive observations is recorded as an Absolute Value (positive number). Take a look at 'Wikipedia Control Charts' for a quick overview of how the calculated values are calculated. Douglas Montgomery's book, *Introduction to Statistical Control*, provides much more detail if you are interested.

The XmR chart, through the upper and lower control limits, provides information to determine what a natural process limit is. When looking at business performance, we all too often over-react when a performance measure changes without considering the 'natural' limits of change. All performance indicators change, it is the natural order of business. Understanding the natural limits of change is vitally important to the successful management of an organisation.

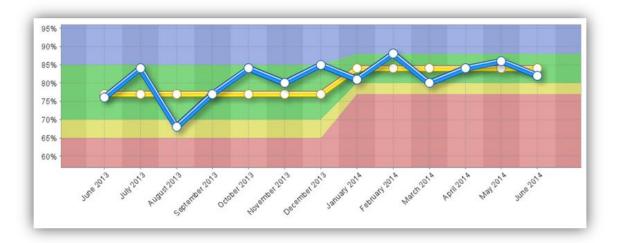
There are several things we need to consider. Firstly, there will always be special cases. In the chart above, the December 2013 metric is an 'outlier'. It has fallen outside the natural limits of the of the process variation. It is also a single instance. The causes of single instances are usually very easy to determine. It may be a seasonal variation; it may be the result of a natural disaster. Whatever it is, it can usually be discounted very quickly and not considered a cause for concern.

Secondly, the data is only valuable when there are 7 or more data points. Without 7 data points, the upper and lower control limits cannot be accurately calculated. However, in business we can rarely wait 7 months to take action. As a rule of thumb, if there are 3 or 4 data points in a row that can be observed as moving away from the Average, action should be taken.

Thirdly, although there is a very strong case to always use both charts contained within the XmR chart, the whole chart can be confusing to a general business user. Great value can be gained by using the X part of the XmR chart.

Lastly, the duration of an XmR chart need to be revisited when a 'long-run' of data remains above or below the Average line. In the example above, we can see that from June 2014 onwards all of the data points are above the Average line. This clearly indicates there has been a change in the business process. We can also see that the variation between the data is less. If this group of data was recalculated as a separate XmR chart, the upper and lower control limits would be very different.

The chart above was created using standard spreadsheet techniques. Adding the axis and values and calculating the limits is a relatively simple thing to do. However, using spreadsheets can be fraught with difficulties if the information has to be provided to a group of people or it is part of a much larger business performance activity. If this is the case, then turning to a software solution is probably a better alternative. There are many software packages available. They can be configured to take into account things like 'long-run' effects and display results that provide a greater level of information. For example, the chart above (using the X-Chart portion) might look like this:



Here we can see the upper and lower control limits as the 'green' portion of the chart. The Average is the yellow line and the data the blue line. An additional lower limit, in the form of an amber band has been added providing the familiar red/amber/green/blue (RAGB) business parameters. The chart has also re-formatted the 'long-run' set of data points and narrowed the upper and lower control limits.

Whatever system is used to look at performance data, the key is to look at the data as a whole and over a reasonable duration. This control chart provides far better analysis of the data as compared to traditional trend lines or month on month or year on year comparisons. There is, of course, still the need to take into account associated data and other external or internal factors.

All situations will be different; here is some guidance to be used when interpreting the results provided by your KPIs:

- Do not rely on 'point' analysis, business is too complex for that
- Always question the owner of the KPI
- Always look at related KPIs
- Be prepared for more questions rather than answers
- Check that the KPI is stable and predictable
- Drill down into source data for more information
- Look at long-term and short-term trends (short = 6 months, not less)
- Train yourself to look at patterns within measures and across multiple measures
- The key is to see the difference between 'normal' variation and 'abnormal'
- Look for ways to change and not control outcomes



The last item on the list leads into step 7. When it is clear a KPI (or and objective) is moving in the wrong direction then action needs to be taken. The action needs to be linked to the KPI (or objective) and progress monitored and managed over time to correct or improve the situation.

Step 7 - Take Action

Taking Action comes in two major forms. The first is to put in place a remedial activity when a problem occurs; the second is to create strategic initiatives to promote change.

Putting in place a remedial activity

Putting in place a remedial activity or assigning an action is a relatively simple process and something that organisations do almost every day. The key here is to ensure that the activity or action is well thought through and not the result of a knee-jerk reaction due to an anomaly. There are a number of things that should be taken into account when creating a remedial a activity or action:

- It should be associated to a KPI The only way to confirm an action has had a positive
 effect is to observe a positive change in the KPI. Just because an action has been
 completed does not mean the situation has been resolved.
- It should not be the result of a short-term anomaly Refer back to Step 6 for guidance on this. If a KPI goes 'into the red' it does not necessarily mean there is a problem.
- Be sure to assign the action to an individual Tasked individuals feel responsible and accountable, departments do not.
- Ensure the action is clear in much the same way as a KPI has to be described properly, an equal amount of attention has to be given to describing an action. Be sure to ask the owner of the action if they understand what is required, when it is required, and who will be involved.
- Actions tend to be short-term activities If an action turns into a long-term activity, then
 it should be more properly described as a Strategic Initiative.

Creating a Strategic Initiatives

Creating and managing Strategic Initiatives is a complex process. Strategic Initiatives cause change. When a business is stagnant or failing, setting a strategy, building objectives, setting targets and KPIs will be to no avail unless activities are put in place to evoke change. Strategic Initiatives can cause significant organisational impact. They must be associated to one or more strategic objectives.

There are five things that need to be considered:

- 1. Generating a list of candidate initiatives
- 2. Developing the selection criteria
- 3. Selecting and prioritising the initiatives
- 4. Describing the prioritised initiatives
- 5. Funding, implementing and management of the initiatives

Generating the list of initiatives - During the process of creating Objectives and KPIs you will have undoubtedly thought of things that need to be done to fulfil the objectives and cause improvement in the KPIs. These things may have been 'parked' up to this point. If you do not have a list, then the one has to be created. Go back over your objectives and KPIs and write down all of the things that you think need to be done to enable improvement. This can be undertaken as a group exercise or individually.

It is **not** important at this stage to consider whether an initiative is valid or whether there is funding available or resources to allocate. It **is** important to create a full and complete list. You may find that buried within the list is a crucial game-changer.

Developing the selection criteria - This is the first filtering stage. By developing a set of selection criteria and applying the criteria to each item on the list, the list will be reduced dramatically.

Consensus has to be reached on the most important criteria. This should not be overly complex and the criteria should be few in number, ideally just three items. Selection complexity and additional criteria can be added in the next stage. Typical criteria might be:

- The potential strategic gains related to the organisational vision
- A judgement on the anticipate implementation and operational cost
- The time required to implement

Using the above criteria should take out the 'nice-to-have' initiatives that have no real strategic significance.

Select and prioritise the initiatives - With a manageable number of initiatives left (this really depends on the size of the organisation but should be no more than 15) a more formal ranking framework can be applied. There are several methods that can be used which include:

Consensus voting – based on the criteria developed and some additional more specific criteria. Participants can then workshop and vote on what they consider are the most important initiatives. Care must be taken to ensure the right people are attending, i.e. those with a good knowledge of the business and strategic process to date. Discussion will need to take place after the voting to establish 'good-reason' for a vote to avoid votes made because of a vested interest rather than the good of the organisation.

Matrix Scoring – This is a good way to present a visual framework and is usually undertaken in the form of a two-by-two matrix. In a workshop, a grid is placed on a wall with the X and Y axis being something like Impact and Cost respectively. The initiatives are placed on the grid. The group of initiatives placed in the low-impact, high-cost quadrant is usually eliminated and a judgement taken on the remainder.

Weighting Criteria Scoring – Probably the most 'scientific' approach. The existing criteria and any additional criteria can be added to a table. A weighting to each criteria is established and each initiative scored against the criteria. This can take a long time and requires good disciple from the participants but it does provide a very good output.



When the selection method has been applied, the remaining initiatives, which should number 5 to 7, can be prioritised. This is usually the task of a senior management team who will once again refer to the overall selection criteria and relevance to the organisational vision and strategy.

Describing the prioritised initiatives - This is a relatively simple but vitally important step. The output from the selection should be documented for each strategic initiative. This will be reviewed and agreed by everyone. It sets the stage for funding, implementation and management. The strategic initiative description document need not be overly detailed, but it must capture precisely what is required and which objectives will be impacted. An example of a strategic initiative description format could look like this:

Strategic Initiative:				
Initiative Owner:	Description:			
Department:				
Phone:				
E-Mail:	Impacted Strategic Objectives:			
Start Date:				
End Date:	Deliverables:			
Estimated Cost:				
Staff Required	Resources and Skills Required:			
Assumptions	Dependencies	Risks:		

Funding, implementation and management of the initiatives - All projects require funding and it is this stage that often causes the most heated debate. If the previous four stages have been gone through with care, then funding should not be a barrier. Funding should have been at least partially considered in the selection criteria. One thing that often happens at this stage, however, is that the highest priority initiative is usually the most expensive and need the whole budget.



It is therefore not unusual to re-priorities to look for lower-cost projects that can be implemented quickly and drive a significant change. This may require the team to look at ways of staging or delaying the highest priority initiative to release funds for lower priority initiatives.

When the funding issues have been resolved, then the implementation can begin. The initiatives then become projects and a project manager assigned, this is crucial!

Strategic Initiatives provide the means to achieve business Objectives. This connection has to be maintained. Strategic Initiatives are useless in isolation. To re-iterate, just because an initiative has been completed, does not necessarily mean and improvement has been made, it just means the initiative is complete. If an initiative is connected to an improvement objective, then we can measure whether or not an impact has been made.

In Conclusion

This methodology has a primary goal to ensure that valid KPIs can be created, monitored and acted upon to ensure that the right objectives are established and that they contribute to an organisations strategy.

Here are a few things that need reinforcement:

- The golden rule: KPIs are based on objectives. There is no reason for a KPI to exist unless it is contributing to an objective.
- Think about objectives in terms of results, they should have a tangible element, something that can be measured.
- Objectives should use words that relate to how we physically perceive things in the world. This is a good technique to sense-check you are on the right track.
- When creating a KPI it needs to be clearly described, based on an objective, rated in terms of importance and assigned ownership.
- There should be a good mix of 'lead' and 'lag' KPIs, do not rely heavily on lag measures, they cannot influence an outcome.
- Assigning 'thresholds' is not only a good discipline (it forces discussion about good, bad and indifferent results ahead of time) but enables highly visual reporting.
- Think about the structure of your reports and ownership, when you start to use a performance management solution it will help with permission definition
- Think hard about the need for real-time reporting; will it make a difference to the way the business is managed?
- Dashboards are a great way to provide an at-a-glance view of the business, take care during construction to think about who the target audience is.
- Interpreting results is a *process*, it is not a *reaction*. Any 'dip into the red' needs to be examined carefully and in context, the measure owner must be involved.
- Actions need to be physically linked to objectives/KPIs and managed together; they
 are all part of the process.
- Strategic Initiative need to be considered as projects in their own right.

And finally, review your scorecard structure at least every six months. We have a tendency to consider this as an annual job, in today's environment that is not good enough. Keep competitive, keep on top of your KPIs.