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eBook

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Business Process 'First Aid'

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Introduction

Business process improvement initiatives come in all shapes and sizes.

There are certainly times when our business processes need to fundamentally adapt, and we may find ourselves carrying out major process surgery in order to solve a problem or make an improvement. Yet often prevention is better than cause. Perhaps by building our processes in a way that they acknowledge and learn from their environments will mean we can build *self-adapting and self-healing processes?*

Or, put differently, by carrying out 'first aid' early, we can (in at least some cases) avoid the need for 'major process surgery' later.

Measuring the Vital Signs: Knowing when to Change

Organizations – and the business processes that are orchestrated within them – operate within a shifting external environment.

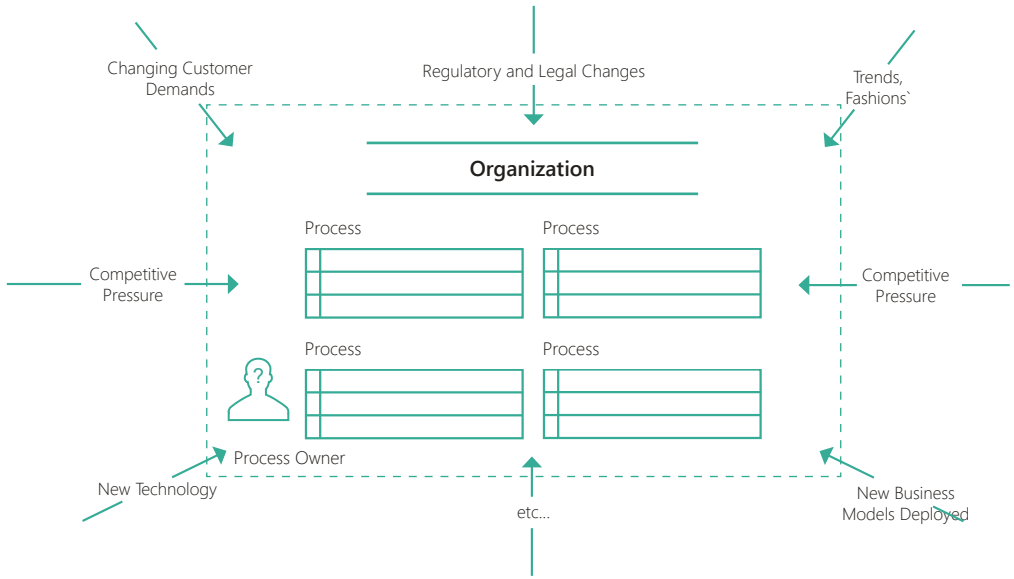
It is often said that the pace of change is increasing, with technology enabling new entrants to disrupt traditionally stable markets with new business models and new services.

Consumers are becoming increasingly sophisticated and savvy, having more information at their fingertips than ever before in history.

Layer on top of this global political, regulatory and legal changes and it is clear that we operate on shifting sands – our processes must be able to adapt quickly to the new contexts that emerge from the business environment.

This shifting sand is illustrated in figure 1:

Figure 1: Some of the pressures that are put on organizational processes.



Yet, whilst this is easy to write, it is often hard to do. In fact, it can be hard to even know when to adapt. Executives in organizations grapple with all sorts of data and insights, using their experience and foresight to create an organizational strategy that will assure future success.

This involves assessing what capabilities the organization will need, and formulating a mechanism for configuring an organization in a way that will continue to meet customers' expectations. In most cases, the problem isn't a lack of data and insight – it is knowing which data (or whose insight) to rely on.

This process of monitoring and reacting to the environment shouldn't be restricted to the boardroom – adopting it at an end-to-end process level is extremely beneficial. As well as building teams and processes that can 'read' the landscape and react to changes, this also creates an early-warning system. If trends emerge that show a significant change in expectation, demand or the business environment generally, this can be fed to an executive decision maker.

More than just insight, it is an indicator that changes are happening which might have an impact on wider organizational strategy. It is a catalyst to action, potentially at an organizational as well as process level.

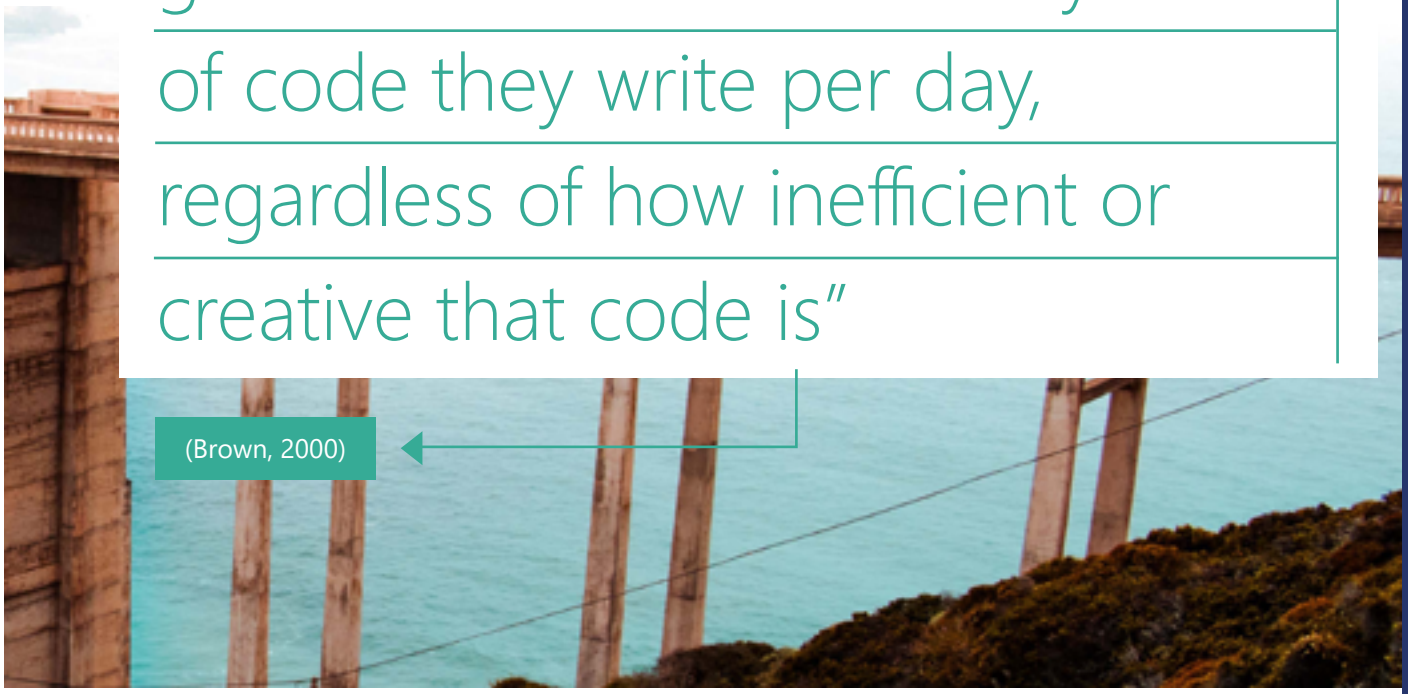
The ability to create these warning signals – that are essential for process 'self-healing' and so much more – depend on us identifying the processes 'vital signs'. What are the handful of metrics that actually matter?

Just Because You Can Report On Many Metrics Doesn't Mean You Should!

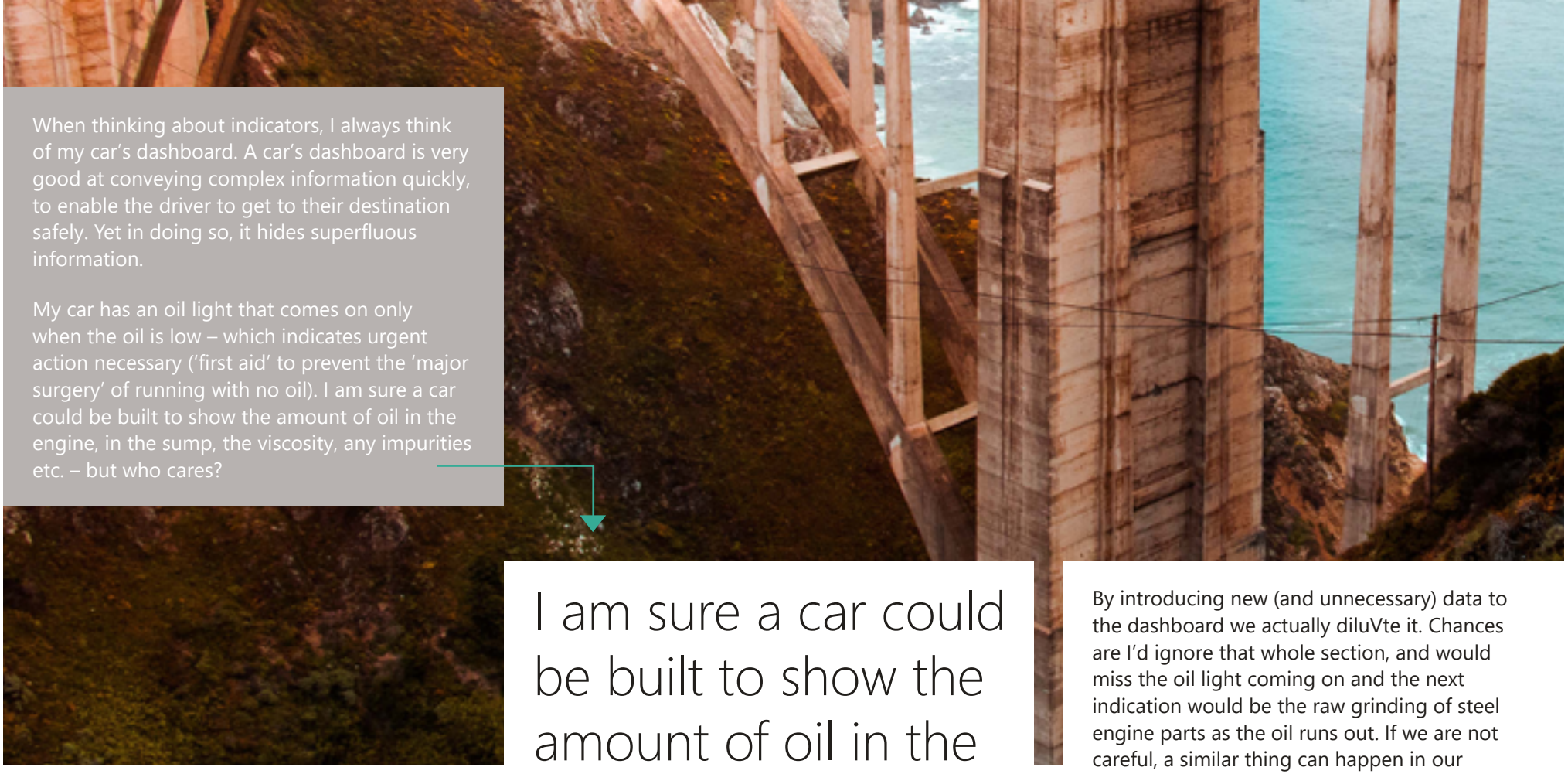
This leads us on to the tricky and emotive subject of process measurement. It is certainly true that if we want to monitor and improve a process we need to measure something.

The question is what to measure, monitor and report on – and this leads us to a trap that organizations can unknowingly fall into – the trap of measuring (and reporting) on everything that is easily measurable! Mark G. Brown articulated this very eloquently in his book "The Winning Score":

> "The rule in many organizations is to select a measure that can be objectively tallied, no matter how meaningless it might be. For example, [...] software developers get measured on how many lines of code they write per day, regardless of how inefficient or creative that code is"
>
> (Brown, 2000)



[1] Note, this diagram deliberately shows a process-centric view of the organization. There are of course, alternative ways of viewing an organization.



When thinking about indicators, I always think of my car's dashboard. A car's dashboard is very good at conveying complex information quickly, to enable the driver to get to their destination safely. Yet in doing so, it hides superfluous information.

My car has an oil light that comes on only when the oil is low – which indicates urgent action necessary ('first aid' to prevent the 'major surgery' of running with no oil). I am sure a car could be built to show the amount of oil in the engine, in the sump, the viscosity, any impurities etc. – but who cares?

I am sure a car could be built to show the amount of oil in the engine, in the sump, the viscosity, any impurities etc. – but who cares?

By introducing new (and unnecessary) data to the dashboard we actually diluVte it. Chances are I'd ignore that whole section, and would miss the oil light coming on and the next indication would be the raw grinding of steel engine parts as the oil runs out. If we are not careful, a similar thing can happen in our organizations and our processes.

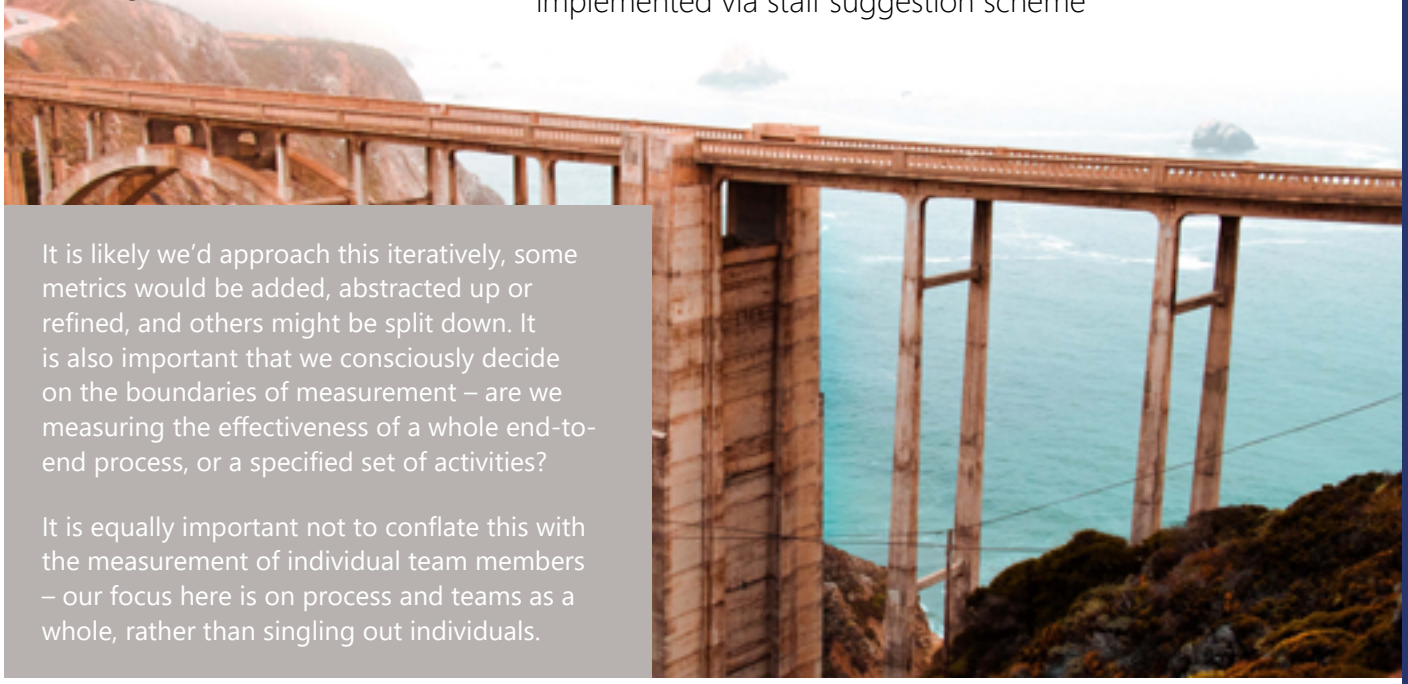
The key is to report on those few (often composite) indicators that can give an actionable indication of how things are progressing. It may well be useful to capture additional data, which can be 'drilled into' for diagnostic purposes if a Key Performance Indicator shows a worrying trend. This helps avoid analysis paralysis.

Taking a Balanced View

It can be useful when defining KPIs to develop a balanced business scorecard. Kaplan & Norton provide a robust starting point for many organizations (Kaplan & Norton 1996) which advocates balancing Financial, Customer, Learning and Growth as well as our Internal Process KPIs.

Let's imagine a call center wanted to set some KPIs for a particular set of customer service processes. Traditional thinking might lead us towards metrics such as 'average call length' and 'average speed of answer'. Yet doing so completely ignores other elements of the scorecard. As a first pass we might extend these further as illustrated in the example below:

Dimensions	Potential measures (targets TBC)
Internal Business Process →	**Efficiency:** Call length **Capacity:** Average Speed of Answer (*affects multiple process types) **Accuracy:** % Rework
Financial →	**Cost:** Average cost per call **Revenue:** Average revenue per call
Customer →	**Satisfaction:** Complaint rate, results to post-call survey Revenue: Average revenue per call
Learning & Innovation →	**Ideas Pursued:** Number of ideas considered, pursued and implemented via staff suggestion scheme



It is likely we'd approach this iteratively, some metrics would be added, abstracted up or refined, and others might be split down. It is also important that we consciously decide on the boundaries of measurement – are we measuring the effectiveness of a whole end-to-end process, or a specified set of activities?

It is equally important not to conflate this with the measurement of individual team members – our focus here is on process and teams as a whole, rather than singling out individuals.

Even in the bare example above, it is clear that 'call length' and 'average speed of answer' are only partial measures of performance. It is quite possible to have short calls and a short queue by offering very bad customer service (or hanging up on a customer mid-call!).

Balancing this with customer satisfaction, cost and innovation gives us a more holistic approach. If we start to see the average cost per call creep up, this would warrant further investigation – perhaps it is because fewer calls are being received.

This might be a good thing (we're pre-empting customers' problems so they don't need to ring) or it might be systematic of customers defecting elsewhere. Drawing back to the metaphor of a car I used earlier, the 'oil light' is on, we pull over and take action. In our organizational example, we may drill down into more detailed data points. This is illustrated in figure 2:

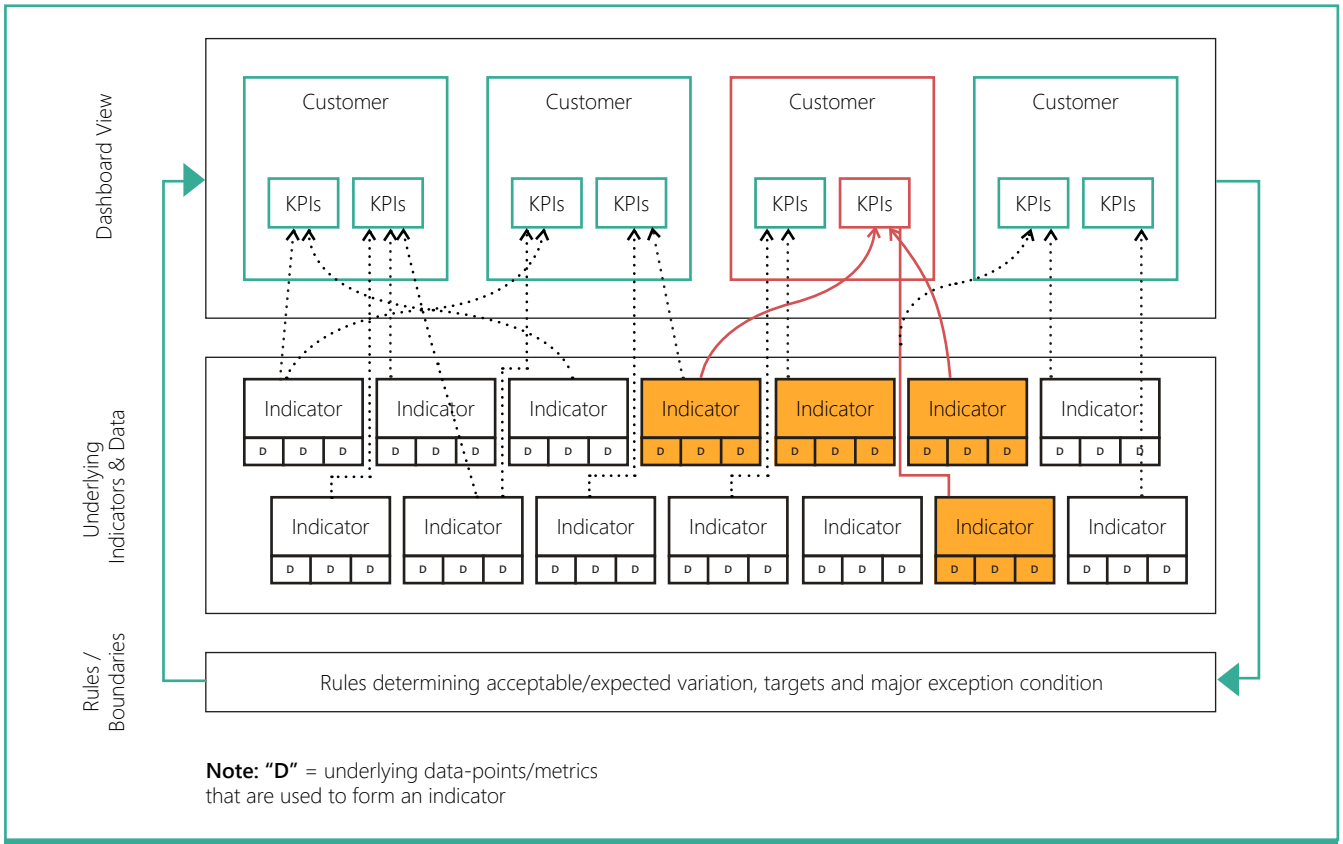


Figure 2: Conceptual diagram showing dashboard and underlying indicators
Diagram © Blackmetric Business Solutions Ltd, used with permission

In this example we can see a problem indicated by an Internal Business Process KPI, causing us to 'drill down' to the underlying indicators and data-points to help us further understand the symptom. We can also see whether these indicators influence any other KPIs;

this may be a leading indicator of trouble to come elsewhere. The diagram also shows that rules are set to show acceptable/expected variations, and also what should trigger a major exception condition. This, when undertaken well, will stop 'false-positives' being reported due to normal variation.

The Indicator is the Symptom not the Cause

An illuminated 'oil light' warning in a car tells one thing – the absence of oil. It doesn't tell us why the oil is absent. I am no mechanic, but I suspect there could be many, many reasons – and a leak could occur in many places. Knowing this allows us to take temporary action (add more oil) whilst we work out how to investigate further.

The same is true with process indicators. Top-level KPIs will tell us that something is potentially wrong – but it won't tell us why it is wrong or what we should do to correct it. Therefore an important part of process 'first aid' is undertaking analysis.

The nature of this process analysis will vary depending on the problem detected, but one common and important theme is to involve people who are actually responsible for undertaking the work. In fact, it is ideal if these stakeholders are carrying out monitoring the KPIs too.

Of course, there may be other monitoring/quality/governance functions that eyeball the KPIs, but enabling those involved to see and contextualize them provides a number of advantages:

Ownership:

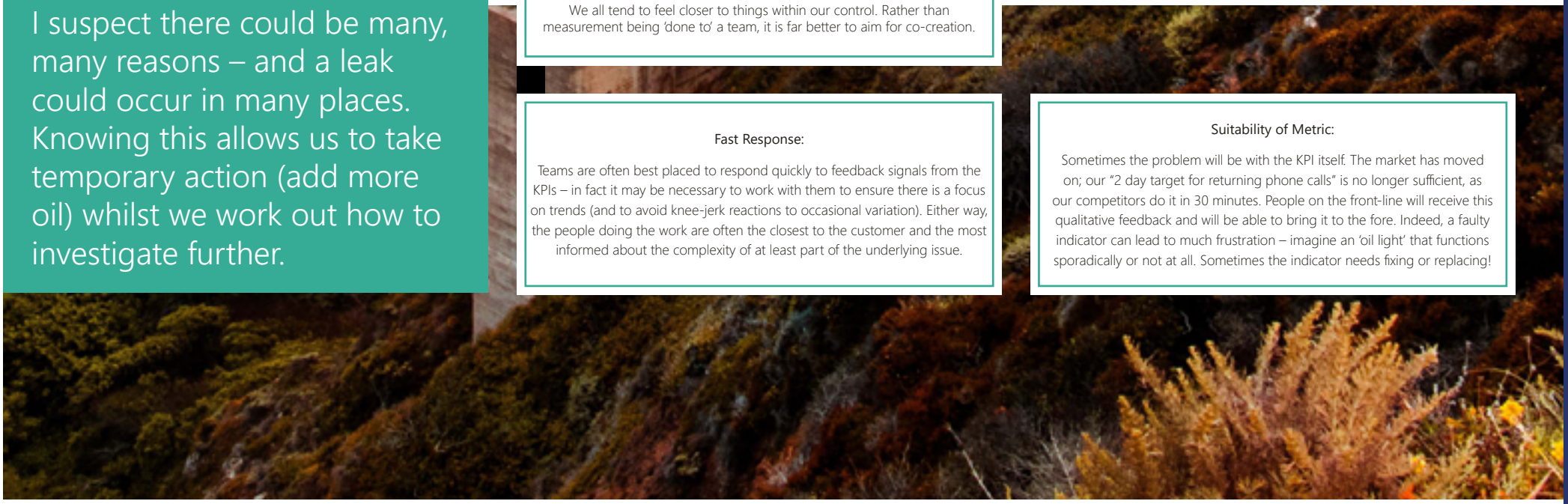
We all tend to feel closer to things within our control. Rather than measurement being 'done to' a team, it is far better to aim for co-creation.

Fast Response:

Teams are often best placed to respond quickly to feedback signals from the KPIs – in fact it may be necessary to work with them to ensure there is a focus on trends (and to avoid knee-jerk reactions to occasional variation). Either way, the people doing the work are often the closest to the customer and the most informed about the complexity of at least part of the underlying issue.

Suitability of Metric:

Sometimes the problem will be with the KPI itself. The market has moved on; our "2 day target for returning phone calls" is no longer sufficient, as our competitors do it in 30 minutes. People on the front-line will receive this qualitative feedback and will be able to bring it to the fore. Indeed, a faulty indicator can lead to much frustration – imagine an 'oil light' that functions sporadically or not at all. Sometimes the indicator needs fixing or replacing!



Process 'First Aid' Starts by Knowing the Process Anatomy

Much like I would imagine anything beyond basic 'first aid' conducted on a person requires knowledge of the human anatomy, it's necessary for us to know our process anatomy before undertaking process first aid (and certainly before undertaking process surgery!).

It's important that we know enough about the thing we are changing before we change it, so we can ensure that our interventions and improvement opportunities contribute towards the desired outcome.

Ensuring that processes are captured in a single, common repository that relevant stakeholders can refer to (providing a 'single source of the truth') is extremely valuable, particularly when a shared notation (such as BPMN) is used.

Ensuring that the repository can serve up different 'views' of the process is important – different stakeholders will want to see different levels of detail. People doing the work will need to see finite detail, those managing the end-to-end process may prefer a higher-level view.

If these views of the process don't exist it may be necessary to create them – or at least partially create them – before carrying out any process 'first aid'. Else we may find we are applying a sticking plaster to the wrong part of the process, or even that we inadvertently make the process worse! Knowing the key pathways, gateways, exception conditions and so on is crucial.

Diagnosing the (Root) Cause

Having established there is a potential problem with a process, or an opportunity for improvement – and having understood the process anatomy, we can now look to undertake a diagnosis. When carrying out process 'first aid', the aim will be for quicker (and perhaps even experimental) diagnosis.

Of course, there is still a significant argument for detailed data collection and proving root causes – but when the environment changes quickly (and our metaphorical 'oil light' is on) we may have to act quickly and perform interim action whilst simultaneously carrying out analysis.

This may involve forming a linked problem/solution hypothesis. For example, drawing on our earlier call-center example we may notice that the 'average speed of answer' (queue length) has been increasing, and customers are starting to complain.

A quick delve into the data shows that a large proportion of queries being processed are actually relatively simple – and in fact the answers are available on the website.

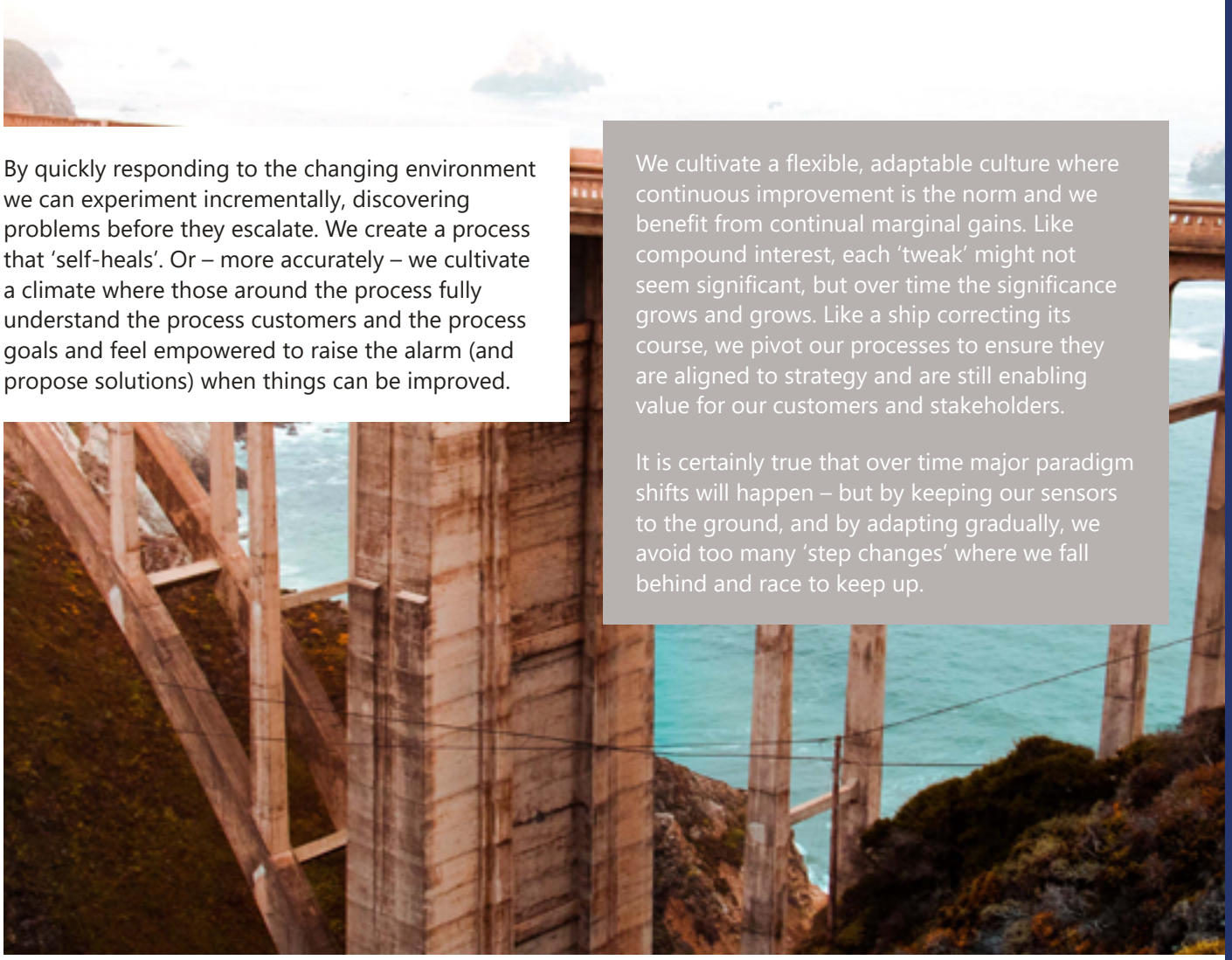
We might conclude that by making the information more prominent on the website and by informing customers when they ring that it might be quicker for them to use the website next time and by having a short recorded message at the beginning of the call reminding people that the website is available, that these queries will reduce, in turn reducing queues and complaints.

However, this is at most a linked problem/solution hypothesis. We think that by changing our script (a procedural change) and the website/recorded message content (a technology change) that the problem will be reduced. Yet it is hard to know how people will actually behave until we try it. We might find that it completely alleviates the problem, or we might find that another problem (that has until now been shielded) comes to light. Much like plugging a large leak in an oil pipe might reduce the issue, but make smaller leaks far more visible than they were before. Yet, this is a good thing; it allows iteration and discovery and accepts that we will learn as we improve the system.

First Aid doesn't have to be temporary

The term 'sticking plaster' when used in a business context has become synonymous with a quick-fix that won't always solve the underlying issue. This is in contrast to the types of intervention that have been discussed in this paper where although the fix is quick it can also be lasting.

By quickly responding to the changing environment we can experiment incrementally, discovering problems before they escalate. We create a process that 'self-heals'. Or – more accurately – we cultivate a climate where those around the process fully understand the process customers and the process goals and feel empowered to raise the alarm (and propose solutions) when things can be improved.



We cultivate a flexible, adaptable culture where continuous improvement is the norm and we benefit from continual marginal gains. Like compound interest, each 'tweak' might not seem significant, but over time the significance grows and grows. Like a ship correcting its course, we pivot our processes to ensure they are aligned to strategy and are still enabling value for our customers and stakeholders.

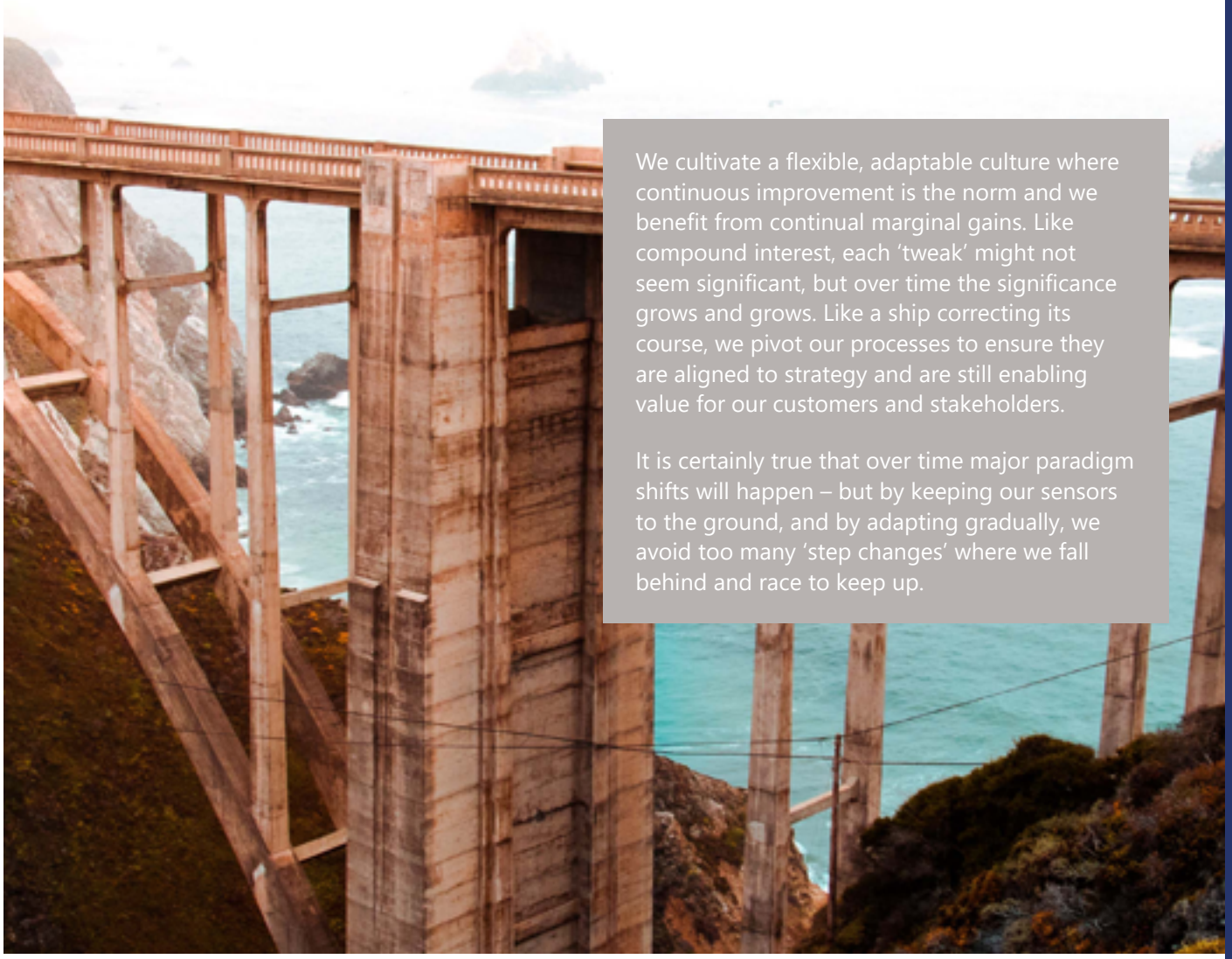
It is certainly true that over time major paradigm shifts will happen – but by keeping our sensors to the ground, and by adapting gradually, we avoid too many 'step changes' where we fall behind and race to keep up.

Conclusion

We live in a fast-moving world, and it's crucial that we manage our processes in a way that encourages evolutionary adaption.

Ensuring that we are taking appropriate measures, at appropriate intervals, will help act as an 'early warning' sign. When combined with executive insight and foresight this will help us spot opportunities and problems.

Cultivating an environment where the teams involved at all levels of the process can help the process 'heal' will be beneficial – this will help the process evolve over time. This kind of 'first aid', when conducted well, may reduce the need for more radical 'process surgery' later in the process' life. It is, of course, no silver bullet – but when paired with good leadership and solid strategic alignment, will be one enabler to success.



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References

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Brown, M. (2000). Winning score. Portland, Or.: Productivity.

Kaplan, R. and Norton, D. (1996). The balanced scorecard. Boston, Massachusetts: Harvard Business School Press.

Further Reading

Further Reading

Readers interested in the topics discussed in this paper may find the following resources useful:

Cadle, J., Paul, D. and Yeates, D. J. (eds) (2014). Business Analysis. Swindon: BCS Learning & Development Limited.

IIBA, (2015). Guide to the business analysis body of knowledge. Toronto : Ontario: International Institute of Business Analysis.

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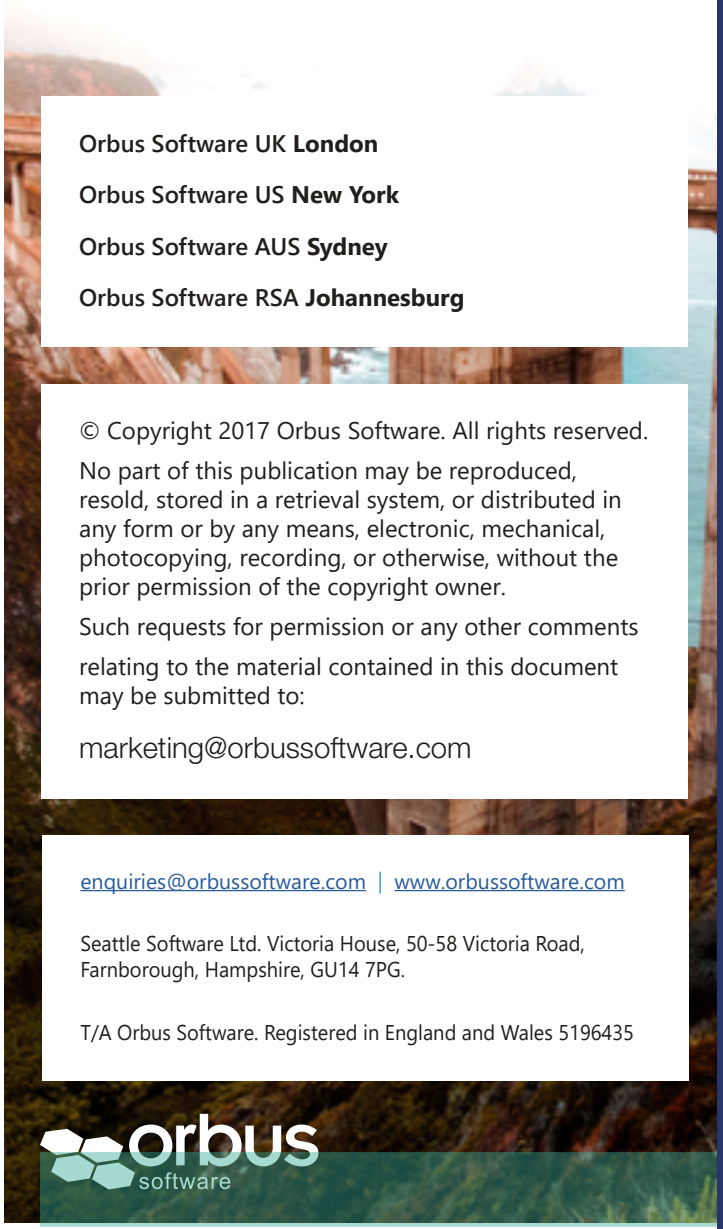

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