

Contents and sample chapters for

SEMPER and SCORE

Enhancing enterprise effectiveness



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INTRODUCTION

Enhancing enterprise effectiveness

All organisations strive for high performance, in the short-term at least. Yet the real ‘holy grail’ is *sustainable excellence* – even in fast-changing times.

The usual recommendation for this is an almost obsessive focus on efficiency above everything else. True, an emphasis on efficiency will help in some ways; but the only way to sustain excellence in the long term is through focusing on *effectiveness* – of which efficiency is only one part. Effectiveness in turn depends on integration, on understanding and working with the enterprise *as* a whole. How to do so is what this book describes.

As explained in previous books in this series – such as *Real Enterprise Architecture: beyond IT to the whole enterprise* (or ‘*Real EA*’) – developing and maintaining a clear picture of the whole is a key task for the enterprise-architect. Yet this book will also be useful for anyone whose work addresses or encompasses the whole enterprise – senior strategists and analysts, executives and senior management, Programme Management Office and similar roles. And the concepts and techniques described here can be used in any kind of enterprise, at every scale, from a single-person project to a large multi-national corporation or even an entire country.

Themes we’ll address here include:

- what is enterprise effectiveness?
- what impact does effectiveness have on enterprise performance?
- what impact does strategy have on enterprise effectiveness?
- how can we measure and monitor effectiveness?
- how can we use those metrics to enhance overall effectiveness?

In other words, a bit of theory to set the context, but the remainder is very much a practical ‘how-to’ – a cook-book that’s seasoned with real-world examples. But first, a simple question with a not-so-simple answer:

What is effectiveness?

What *is* 'effectiveness', in an enterprise sense? The usual management texts seem to imply either that effectiveness is the same as efficiency, or else assert that we need to be "efficient and effective" without actually describing what is meant by 'effective' or how it differs from efficiency. In other words, 'effective' is, well, *effective* an' all that, y'know? Which isn't much help... To enhance enterprise effectiveness, we need something that's a lot more concrete than that kind of vague, woolly non-definition.

So let's be explicit: effectiveness consists of, or arises from, four distinct dimensions, plus another sort-of dimension that ties the others together:

- *efficient* – makes the best use of available resources
- *reliable* – can be relied on to deliver the required results
- *elegant* - supports the human factors in the context
- *appropriate* – supports and sustains the overall purpose
- *integrated* - linked to and supports integration of the whole *as* whole

Enterprise performance depends on how well we optimise across these dimensions, and the set of related dimensions that, between them, express the enterprise's 'ability to do work'. More detail on that in the next chapter; the point here is that efficiency is neither the same as effectiveness, nor separate from it, but a *subset* of what's needed for overall effectiveness.

The danger, then, is that a focus on efficiency alone will almost always cause more harm than good, because we cannot optimise appropriately against the other dimensions of effectiveness. Yet many, perhaps most, of the standard management texts still promote the assumption that efficiency is the be-all-and-end-all of business: what's going on? The short answer is that they're using the wrong metaphor to describe the enterprise – which at first might sound somewhat abstract, but the impacts on enterprise capability and performance are all too real. To understand *why* it's such a problem, and what to do about it, it's worthwhile taking a brief detour to look at this matter of metaphor.

A matter of metaphor

For more than a century, the most common metaphor to describe the enterprise is to think of it as a *machine* – more specifically, in the commercial context, as ‘a machine for making money’ on behalf of the shareholders. This is the core concept behind ‘scientific management’, of ‘business process re-engineering’ and so many other theories and models of the enterprise. In my main field of enterprise-architecture, for example, it’s the basis for John Zachman’s oft-repeated assertion that the role of architecture is ‘engineering the enterprise’. And so on, and so on.

It’s been around so long, and been dominant for so long, that it doesn’t seem like a metaphor at all: it’s *the* description of how things really *are*. But despite that sense of certainty, of ‘naturalness’, in reality it’s just one of many possible metaphors, and by no means the best – in fact, for most present-day enterprises, it’s dangerously misleading. For practical purposes, it’s far better to think of the enterprise as a *living organism*. The contrast between these two metaphors is striking:

| <i>Machine</i> | <i>Living organism</i> |
|---|---|
| Purpose provided from outside (has no inherent purpose) | Purposive, self-motivating |
| Requires outside agency to adapt for change or repair | Self-adapting, self-repairing |
| Rule-based: cannot cope with complexity | Can handle full spectrum of rules, guidelines, heuristics, principles |
| Sum of its parts | May be more (or less) than sum of its parts |
| Can be taken apart and rebuilt | Likely to fail (‘die’) if taken apart |

Metaphors: machine versus living organism

If we view the enterprise as a machine, then our only concerns are efficiency and reliability – hence ‘scientific management’, and its obsession with control. From this perspective, it’s ‘obvious’ that people are ‘human resources’, interchangeable components to be linked into the functions of the machine via standardised job-descriptions. It’s equally ‘obvious’ that, wherever practicable, people should be replaced by software, because (in theory at least) machines are more predictable than people – hence the delusory allure of theories such as business process re-engineering...

Business process re-engineering has been described as “the last gasp of Taylorism” – the final act of hubris that highlighted all the fundamental flaws in ‘scientific management’. I’ve yet to hear of *any* BPR project that delivered all its promised benefits: instead, most cases came close to destroying the entire enterprise. Some years after the initial exuberant hype, and when the true scale of the debacle had become too much to ignore, one of BPR’s most ardent proponents ruefully admitted that “we failed to take enough account of the human factors”. Hmm... methinks ‘failed to take *any* account of the human factors’ might have been more accurate...

For all its appeal, its apparent simplicity, the machine metaphor has some lethal limitations. For example, it assumes a strict separation between ‘brawn’ and ‘brain’ – the classic distinction between ‘blue-collar’ versus ‘white-collar’. And the real thinking for how to reconfigure and restructure the machine must always come from outside – hence lucrative employment for armies of self-styled ‘management consultants’. Yet the catch in doing so is that the ‘brain’ is distanced from the action, hence keeping track of what’s going is always uncertain; communication takes too much time; decisions are always too late; and key details are often lost or misinterpreted, causing decisions to be flawed at best. When the wrong information and other resources arrive in the wrong place, with the wrong person, at the wrong time or in the wrong sequence, life can be hell out there on the factory floor...

So whilst the machine metaphor is efficient in theory, it’s often appallingly ineffective in practice. (In fact it fails *because* the focus is theory, not practice – though more on that later.) The only business-contexts for which it *does* work well are those with stable, slow-changing markets and simple, highly standardised products or services – which applies to very few enterprises in the present-day. The machine metaphor simply cannot cope with the current global trends, such as growing diversity and division; the need for differentiation in a globalised, commodified market; increasing value of information; outsourcing and other ‘extended enterprise’ relationships; emerging networks, ‘value webs’, and other dynamic consortia; 24/7 ‘follow-the-sun’ business-processes, and the ever-increasing pace and complexity of change.

No doubt, of course, that every enterprise will still need continuous improvements in efficiency, to cope with the relentless pressure to do more with less; and every business system and business process will still need reliability, wherever we can find it. Yet most real-world enterprises *also* need a model that allows for uncertainty and unpredictability, for complexity and rapid change. Which is where the metaphor of the ‘living enterprise’ comes into the picture.

In a living organism, the 'brain' isn't separate from the 'brawn': each is part of and dependent on the other. A large enterprise, just like a large organism, is a complex web of interdependent specialised services woven into a single 'viable system'; and as systems-theory pioneer Stafford Beer put it, the real 'brain of the firm' does not reside solely with the managers, but is distributed throughout the enterprise. The same is true of the enterprise's knowledge of itself and its environment – the key concerns of enterprise-architecture; these arise from the 'human factors', from personal skills, personal knowledge, relationships, purpose, commitment, drive. Such things have no meaning to a machine – but they matter a great deal to a living enterprise.

Without access to that 'distributed brain', the enterprise is likely to be in deep trouble in today's complex environment; but when that knowledge and awareness and creativity are available, and shared – as Deming proved in his work on quality in post-Second World War Japan – the enterprise becomes self-correcting, self-adapting, self-motivated, able to respond with agility to any changes in needs and context. And thrives as a result.

Science itself has changed, too: the science underlying Taylorist 'scientific management' has long since gone out of date. A present-day 'scientific management' would have to extend beyond the crude concepts of control and cause-and-effect, to include new factors such as recursion, complexity and emergent systems. And in most business contexts, it's not just that those 'human factors' do matter: they *determine* enterprise effectiveness – and the difference between failure and success.

So whilst the machine metaphor leads us naturally towards a focus on efficiency, it leads us *away* from effectiveness – and it's the latter that we really need. Yet however outdated, old metaphors are hard to drop: thinking in terms of the 'living enterprise' may well seem, well, *unnatural*, for a while at least. But it's well worth the effort of persisting with that shift in mindset, because there's a real pay-off in terms of a better understanding of effectiveness, and how to achieve it in practice in the enterprise.

Principles of intervention design

Practice is the real concern here. Metaphors may be interesting, but they're of no use unless we *can* put them to use. Where 'the rubber meets the road' for effectiveness in practice is in the design of

diagnostics and interventions that support appropriate change in the enterprise – helping it to become ‘efficient on purpose’.

I’ll perhaps risk repeating myself too often here, but it’s essential to remember that with the machine metaphor it’s all too easy to be ‘efficient *without* purpose’ – which in real terms is neither efficient nor effective.

It’s relatively simple to maximise the efficiency of any one part of ‘the machine’ on its own, as long as we don’t care about the impact anywhere else in the enterprise. It’s *not* simple to balance the effectiveness-tradeoffs across the entire enterprise, and keep the whole thing on track towards an intended purpose.

The machine-metaphor beguiles us with that so-desirable delusion that our interventions can provide control over the enterprise – but unfortunately it *is* a delusion. By contrast, the living-enterprise metaphor illustrates the real complexity of what we’re dealing with. In designing interventions for a real enterprise, in a real context, with real people, the phrase ‘herding cats’ comes to mind... but at least it is real, which ‘the machine’ is not.

To the machine-metaphor, the enterprise is simply a scaled-up machine: more and more complicated as it scales in size, but still a machine. So for intervention-design the focus is on ‘fail-safe’, on certainty, on taking control of causes and effects to create the required, predefined outcomes. Or trying to do so, because it’s never really worked...

Instead, the living-enterprise metaphor accepts that complexity is *qualitatively* different. In complex systems, such as in any real-world enterprise, there *is* no certainty; everything is both ‘cause’ *and* ‘effect’, so there is no such thing as control. There are definite outcomes, and desirable outcomes at that, but nothing that could be determined for certain in advance. So the emphasis in intervention design is not on ‘fail-safe’, but ‘*safe-fail*’.

‘Safe-fail’ is about deliberate design to ‘test the waters’, and pull back to a known-safe position if the outcome is not what we want. There is no ‘failure’ as such, because every intervention is an experiment. And because every intervention is also a diagnostic, this means that, as Dave Snowden of Cognitive Edge puts it, the experiments “allow us to test the evolutionary possibilities of the system”, extending our knowledge of what works and what doesn’t, within that specific context.

A simple example here, from quality-systems development.

In conventional control-based models, the emphasis is on 'best-practice' – on replicating exactly what worked well elsewhere. As long as the context *is* the same as elsewhere, that approach does seem to work – mostly, anyway.

But in environments where there are many 'one-offs' and the context inherently uncertain, a better approach is 'worst-practice'. For example, maintenance-engineers swap stories of what *didn't* work, and the experiments they went through to reach an appropriate solution.

'Best practice' is always a good idea, wherever we can apply it, but it risks failure as soon as the context moves away from what we and it had expected. And in the real world, ultimately *everything* is a 'market of one': there's always *something* that's a little bit different, in everything we do... Both approaches are valid: the trick – the skill – is in knowing which one to use, where, when and why.

So throughout this book, whenever we talk about intervention-design, it's not about some kind of attempt to 'take control' of this wayward beast we call 'the enterprise'. Rather, it's about working *with* the complexity, often running multiple and sometimes contradictory pilot-projects in parallel, to sense out the responses in the respective business context. Our aim is always to create or extend the enterprise's capabilities – its 'ability to do work', in many different senses – so as to enable an agile response to any changes in conditions, any new opportunities. And by monitoring everything as we go – such as with the SEMPER metric described later – we can amplify whatever works, and quietly dampen what doesn't.

But it *is* a different way of working with the enterprise, a different way of thinking, especially about the role of interventions and actions. It does take a while to get used to it, and to get others used to it, too. There are plenty of practical tools in this book, yet do note that most of them can only work well when combined with this different approach to enterprise effectiveness – please do bear that in mind as you read on!

DIMENSIONS OF EFFECTIVENESS

The dimensions of the enterprise

In the previous chapter we briefly touched on the dimensions of effectiveness; at this point we need to look at them in more depth, to provide a firm foundation for the techniques that follow.

The dimensions of effectiveness mentioned earlier – efficient, reliable, elegant, appropriate, integrated – are linked in turn what are, in effect, another related set of dimensions. In essence, these represent the categories of assets in the enterprise: physical, conceptual, relational and aspirational.

Yes, I know: yet another bunch of abstract terms. But don't worry about it: the names and details don't matter that much, it's the underlying notion of distinct *dimensions* that matters here.

To illustrate this, imagine the enterprise as a participant in an old-fashioned street-market or bazaar. Within that market, we can see four discrete yet interwoven dimensions:

- there are **transactions** about *physical* products and services – the most visible and evident aspect of the activity in the marketplace;
- there's an exchange of *conceptual* ideas and information – to quote the *Cluetrain Manifesto*, “markets are **conversations**”;
- the transactions and conversations help to create and maintain *relational* links between the market's players – and without those interpersonal **relationships**, the market could not operate or exist;
- markets are about identity and **purpose** – the *aspirations* of individuals, and the shared purpose of the market as a whole.

The market is all of these things, all blended together in a kind of bubbling brew of **integration**, distinctive in its own right, which we might call the ‘soul’ of the market. Hence, in turn, the ‘soul’ of an enterprise.

Another way to understand these dimensions is in terms of the four classic ways to differentiate an enterprise from its peers and competitors:

- through *products and services* - physical/behavioural
- through *knowledge and innovation* - mental/conceptual
- through *relationships and 'feel'* - emotional/relational
- through *vision and purpose* - spiritual/aspirational

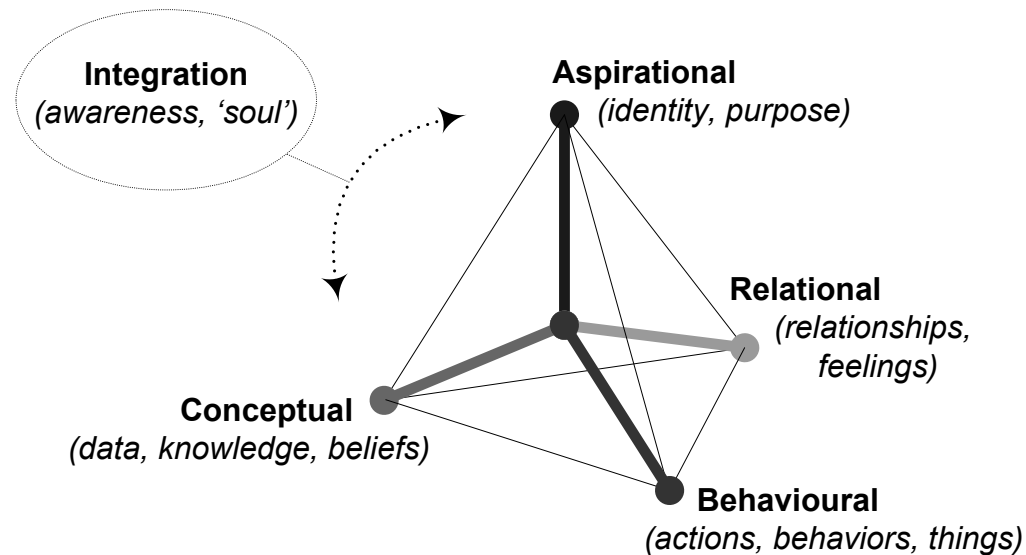
'Spiritual' can seem a somewhat risky word in a business context – it tends to bring up the wrong kind of associations with religion and such. Yet though it's obviously relevant to many non-profit organisations such as charities and pressure-groups, it's actually essential for every enterprise. The core themes of the aspirational dimension – vision, values, identity, belonging, a sense of meaning and purpose – form the backbone to branding and much of marketing, to internal morale, to commitment and quality, and ultimately to the perceived social 'licence to operate'.

None of this can make any sense whilst we cling to the machine metaphor – after all, a machine has no soul (or no *apparent* soul, at any rate!). But it does make perfect sense once we think in terms of the 'living enterprise' – it's the source of the organisation's drive and creativity. An explicit description of such things becomes a core business asset, so we'll see this often in successful large organisations: Hewlett-Packard's 'HP Way' and Johnson & Johnson's 'Credo' are two well-known examples.

And there's another angle on these same dimensions, through the lens of organisational culture:

- "the way we do things round here" – physical
- "what we know, how we think" – conceptual
- "how we relate with each other, and with others" – relational
- "who we are and what we stand for" – aspirational

It's crucial to understand here that these are *dimensions*, not layers – each is essential to the successful operation of the enterprise, and none of them has any inherent priority over any of the others. Because of this, perhaps the safest way to model the dimensions is as a *tetradian*, the four internal axes of a tetrahedron. Each axis or dimension is held stable by the other three; and by rotating our attention between them, every aspect of the enterprise can come into view. In effect, the tetradian describes the 'innerstructure' or internal skeleton of the enterprise.



Tetradian model

From this, it's also clear that there are six link-themes that bridge between each pair of dimensions, providing the tension that holds this innerstructure together. We can loosely categorise the forms of these link-themes as follows:

- *vision and values* - linking spiritual/aspirational and emotional/relational
- *skills and leadership* - linking emotional/relational and physical/behavioural
- *active learning* - linking physical/behavioural and mental/conceptual
- *narrative and dialogue* - linking mental/conceptual and emotional/relational
- *sense-making and foresight* - linking mental/conceptual and spiritual/aspirational
- *responsibility and empowerment* - linking spiritual/aspirational and physical/behavioural

If any domain is poorly supported in any part of the organisation, the effectiveness of the overall enterprise is weakened; and if any link-theme is absent altogether, the entire structure will collapse - taking the enterprise down with it. And even if the specialist needs of each domain are adequately represented, the whole still won't work well if there's no generalist integration process to link everything together. Once this is understood, it becomes obvious that appropriate

management of innerstructure is essential not just for enterprise effectiveness, but for sustainability and survival.

However, don't expect these domains – the dimensions and link-themes, and the process of integration that links them all together – to map directly to any specific department in an organisation. Some domains will be more visible in certain departments and business-functions: for example, the HR, sales and marketing departments will emphasise the relational dimension, production and warehousing emphasises the physical, whilst the strategy unit would be more concerned with sense-making and foresight, and perhaps with vision and values. Other domains are more evident at the *boundaries* between departments: who's responsible for leadership development? for innovation and active learning? for the tacit knowledge embedded in narrative and dialogue? The reality is that the innerstructure underpins *everything*. Like infrastructure, only deeper, all the domains necessarily recur in every department and every business-function – and each domain needs appropriate action and support in every context.

Effectiveness acronyms – REAL and LEARN

Given this innerstructure, we can evaluate effectiveness in each domain through four keywords:

- **R**eliable - whether the activity can be relied upon to deliver the required results (maps to the *physical* dimension)
- **E**fficient - whether the activity makes the best use of available resources (maps to the *conceptual* dimension)
- **A**ppropriate - whether the activity supports and sustains the overall purpose of the enterprise (maps to the *aspirational* dimension)
- **E**legant - whether the activity supports the human factors in the context; also 'elegance' in the scientific sense, in that clarity and the like will support structural simplicity and re-use (maps to the *relational* dimension)

The highlighted letters give us the acronym REAL for the direct dimensions of effectiveness. As we'll see later when we look at the SEMPER metric, we can assess these both in their own right, and cross-mapped to the respective dimension of the innerstructure.

It's also advisable to assess how well each domain, and each activity within each domain, is integrated with the whole – how well it supports the other domains, and is supported by the other domains. This means that we also need to keep track of a kind of 'meta-dimension' that links the other dimensions together:

- **IN**tegrated - whether the activity is linked to and supports the integration of the whole

If we add the highlighted letter to the previous set and give the result a minor tweak, we have the acronym LEARN as a keyword for the effective enterprise – the 'learning organisation'.

It can be relatively easy to assess efficiency and reliability in some domains, using the standard organisational toolkit of techniques built up over the past century. But in practice any overall assessment must inevitably be subjective, at least in part, because so much of the innerstructure is intangible.

Even so, given a consistent methodology and clear guidelines, it's possible to use REAL or LEARN to build a meaningful picture of effectiveness throughout the whole organisation – especially if assessments of different areas, at different times and by different people can be compared, contrasted and consolidated to provide a variety of perspectives on the whole. This is the basis of the SEMPER metric, which we'll explore in detail later – see *SEMPER* (p.27).

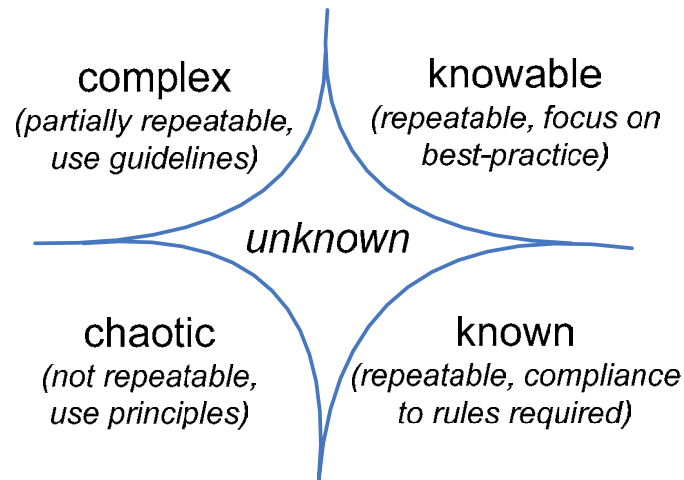
Effectiveness in complex systems

The machine-metaphor works well in simple contexts and simple systems. It also works quite well as a way to understand a small sub-component of a large system, as long as the context can be reduced to something reasonably predictable and doesn't have to deal with change. It's convenient, yet it's too simplistic: and as soon as we have to move outside of those artificial constraints, everything starts to fall apart. We find ourselves with intractable problems that keep coming back, sometimes in different forms, no matter how much we try to control them. So to deal with the real complexities of the *real* world, we need something that really does know about complexity.

This is where systems-theory and complexity-science come into the picture – hence the 'living enterprise' metaphor, because it's easiest to understand living organisms when we describe them in terms of complex systems. Unfortunately, most systems-theory is almost impenetrable at first

for ordinary people in everyday business: it's often too mathematical, too abstract to make immediate practical sense. Which, since we *need* it in order to understand how to enhance effectiveness, can be something of a problem.

But there is one framework that arose in the business space – out of the knowledge-management domain, in fact – and which *is* easy (or *easier*) to apply in a business context. Known as Cynefin – apparently a Welsh word loosely translated as ‘place’ – it was originally developed by Dave Snowden and others at IBM, and was later spun-off to a separate company, Cognitive Edge. It provides us with a visual summary of the different approaches we need to deal with different contexts in real-world complexity:



Cynefin model of context complexity

When we first start to look at a context, everything is in that central region of the ‘unknown’. We then have four distinct modes or domains for sense-making: recognise it as known; find some way to make it knowable in an ordered way; accept its inherent complexity; or accept it as an unique ‘market of one’.

In the *known domain* everything is assumed to comply with simple, explicit, clearly-identifiable rules – the kind of ordered world that legislation and regulation would expect. There’s no need to stop and think: all we have to do here is sense the context, categorise, and respond in accordance with the respective rule.

This is usually the preferred approach in a production environment, if only because there's often no *time* to stop and think. The catch is that it'll fall apart if it meets up with anything that can't fit the rules.

On one of our assignments we worked with a large security organisation which – true to type – was almost obsessive about strict compliance with rules. “But what happens if there's an event that doesn't fit the rules?”, we asked.

“Easy – we make up another rule!”

“Yes, but *when* do you make up the new rule?”

“After the event, I suppose.”

“So how do you handle the event itself, since you don't have a rule for it at the time?”

An *interesting* silence...

In the *knowable domain*, an ordered world of cause-and-effect is still assumed, but it's accepted that simple rules aren't enough – it's *complicated*. This is the preferred domain of the specialist, the analyst, the management consultant – the white-collar workers, the outsider 'brain' in the Taylorist machine-metaphor. The key tactic here is 'sense, analyse, respond', so there needs to be time to think – though we have to be careful to avoid 'analysis paralysis'.

At some point we hit 'complication overload', and move into the *complex domain*. Here we accept that no matter how much we'd like the world to conform to our predefined rules and analyses, reality is that much of the time it doesn't. So the tactic here is 'probe, sense, respond', guided by skill, experience, heuristics, the occasional 'rule of thumb'. Here we'd run multiple experiments in parallel, in a 'safe-fail' context, and pick out the most successful – most 'elegant' – solutions from their results. Although we look for a kind of truth here – and will often switch back and forth between this and the 'knowable' domain, to analyse our results – the emphasis is not on '*the* truth' but '*a* truth', a self-adapting pattern that we can re-use with agility in many different ways.

A good example here is weather forecasting. For a long while it was hoped that we would be able to identify '*the* rules', *the* science – however complicated – by which the weather *really* worked. Unfortunately, the realities of chaos-mathematics and the 'butterfly effect' put an end to that delightful deterministic dream ... oh well...

But we still have accurate weather forecasts – and they're improving every year. What's happened is that they still use the same massively complicated equations: but instead of looking for '*the* one true forecast', forecasters run multiple, parallel computations, with small differences in their setup parameters, each leading to '*a* possibly-true forecast'. When several simulations converge on the same overall pattern, that's the most probable weather outcome. It's complex – but it works, where analysis alone did not.

At the point of contact there's always *something* that's somewhat different, that doesn't fit any rule at all: ultimately everything is in some way a unique 'market of one'. This is the *chaotic domain*, and the key tactic here is one of 'act, sense, respond'. In the knowable domain we have time for analysis, and in the complex domain we still have time to try out our experiments, but here, as in the known domain, we no longer have that luxury: we have to act now, and fast! But where the known domain assumes everything is the same, and must be made to fit the rules, here we know that the rules won't work, or at least won't make sense: often here our principles and aspirations become the only reliable guide.

As a guideline – though it's not part of the Cynefin model as such – the domains do map approximately to the dimensions of effectiveness as follows:

- known-domain (rules): physical dimension; reliable
- knowable-domain (analyses): conceptual dimension; efficient
- complex-domain (heuristics): relational dimension; elegant
- chaotic-domain (principles): aspirational dimension; appropriate

In the real world of everyday business, effectiveness will depend greatly on choosing the appropriate Cynefin domain and the respective tactics to guide decision-making. For example, trying to apply rigid rules and regulations to a complex- or chaotic-domain context is never going to work well. Instead, we need to identify which parts of the context *can* be governed by rules, and which parts require heuristic- or principle-driven flexibility.

Cynefin domains also indicate the required level of skill in each context. For a rule-bound context – in other words, the known-domain – routine training should usually suffice; but analytical skill would be needed in the knowable-domain, whilst extensive experience is essential to work well in the complex-domain, and an even higher level of skill in the chaotic-domain.

Another useful business-oriented source on systems thinking is the books by Peter Sengé and his colleagues on the concept and practice of the 'learning organisation' – *The Fifth Discipline*, *The Fifth Discipline Fieldbook* and *The Dance of Change*. Although the first book is perhaps a bit too heavy on theory for many people's taste, the others are more like practical 'cookbooks', filled with concrete practical examples of the 'learning organisation' – a key attribute of enterprise effectiveness.

Reviewing relevance

The tetradian provides a view of the innerstructure of a given context, and the REAL and LEARN keywords provide a means to assess it. To enhance effectiveness, though, it's also necessary to understand the relevance of each part in the overall context, and how issues in one context can be leveraged, balanced and traded off with other contexts in order to optimise the workings of the whole.

This is where we put systems-theory into practice. The main techniques to do this are embodied in a set of principles adapted from complexity-science, denoted by the acronym **R⁵**:

- *Rotation* – look at the context from diverse perspectives
- *Recursion* – look for ways in which similar issues recur at different scales
- *Reciprocation* – look for balance or imbalance in transactions
- *Resonance* – look for the ‘snowball effect’ through which results tend to increase (positive-feedback) or decrease (damping) automatically over time
- *Reflexion* – look for ways in which the whole can be seen even in the smallest part

The R⁵ principles are used both in assessment and in intervention design.

Rotation is fairly straightforward: the aim is to gain a better understanding of the context than would be available from a single perspective. However, this often involves dealing with contradiction and conflict, as the views may well be different but are equally ‘true’ from their own perspective. The tetradian itself is an example of a rotation, providing different views of the organisation’s innerstructure from the perspective of each domain. Other examples include looking at the organisation from the viewpoint of each department, or from different operational levels, or from the perspectives of other stakeholders such as suppliers, customers, investors, government and the wider community.

Recursion is helpful because it can highlight options to simplify processes and remove costly and ineffective ‘special cases’. It can also simplify training: recursion creates systems and structures that are much the same at many different levels and in different contexts, making it much easier to move people around as needed with only minimal context-specific training. The simplest business example of recursion is the reporting-hierarchy of the infamous ‘org-chart’: each person reports

upward and has their own reports downward in the hierarchy-tree. A more sophisticated example is Stafford Beer's Viable Systems Model, which was applied to the public service of an entire country - Allende's Chile - and proved to be remarkably adaptable and resilient even under wartime conditions. Recursion is important in assessment, too, to review how issues affect one another at different scales, from the individual level, through work-group and business-unit, to the whole enterprise, the wider community and other interactions right up to the global scale.

Reciprocation addresses two subtly different types of balance. At the tangible level, the standard models of classical physics apply: everything has to balance out. The catch, as general systems theory demonstrates, is that the balance - or re-balancing of any asymmetry - may be complex and difficult to decipher, often involving delays that span days or decades, or transformations from one type of energy to another. For most intangible assets, though, the balance is not a simple 'win/lose', but something closer to a choice between 'win/win' or 'lose/lose': either everyone wins, or everyone loses. Making sense of this type of symmetry depends on a radically different concept of power and responsibility, derived from the physics definition that 'power is the ability to do work', rather than the common social definitions which seem more to imply that power is the ability to *avoid* work. (For more detail on the power-model used in SEMPER, refer to the glossary entries for 'power' and 'responsibility', and the related terms such as 'power-with' and 'power-against' - see *Appendix A: Glossary*, p.36.) To assess this form of reciprocation, the focus is less on the surface appearances and appurtenances of 'power', or on who is purported to have it or not have it, but more on the type of work to be done, and the availability of the various types of energies and resources - physical, conceptual, relational, aspirational - which the work requires.

Resonance is the exception to that reciprocal balance - the feedback loops which can be found in all complex real-world systems. In systems-theory this can occur through 'positive feedback' or feed-forward - both of which increase the 'snowball effect' towards self-propagation - or as 'negative feedback', or damping, which reduces the effect. See Peter Sengé's *The Fifth Discipline* for more on this, for example.

Reflexion is more complex - literally so, as it's one of the most important yet counter-intuitive concepts from complexity science. This is the holographic sense that every part, every place, every action in the enterprise somehow also contains within itself every other part of the enterprise. Identifying reflexion takes experience and an eye for detail, but it can save enormous amounts of time and effort in assessment and intervention design: as the eminent consultant Gerry Weinberg

put it, “I always get the answer in the first five minutes – though it may take me hours or days or weeks to recognise what it was that I saw in those first five minutes!” One example is the way that the real values – not just the espoused values – of an enterprise and its culture are revealed in every conversation, every transaction, every workplace, every department, even though the surface similarities in each case may be small.

Together, these elements – dimensions, domains, complexity and relevance – comprise an overall framework to enhance enterprise effectiveness. From here we can start to put it into practice. First, though, we need to simplify it one more step. We do so by restructuring our key four elements to five – as described in the next chapter.

FIVE ELEMENTS

Time, workflow and process

[[see published book for more detail]]

Five perspectives – an exercise on conflict

One of the most visible factors impacting on enterprise effectiveness is interpersonal conflicts – especially all those arguments, or feuds even, that rage between the different departments of the enterprise. Reducing those conflicts would make everyone's life a lot easier, and go a long way towards getting a lot more done...

[[see published book for more detail]]

Part 1: Effectiveness and conflict

Part 2: The structure of conflict

Part 3: Conflicting timeframes

Part 4: Working with conflict

Five Elements in business analysis

[[see published book for more detail]]

SCORE FOR STRATEGY

SCORE for strategic assessment

Strategy is where the enterprise identifies its first moves towards a desired future. This isn't solely an issue for a separate 'strategy team' for senior executives: as we've seen, the 'brain of the firm' is distributed throughout the enterprise. So to enhance effectiveness, the tetradian's Aspirational dimension (or the Five Elements' 'Purpose' domain) needs appropriate support in *every* activity, at *every* level. Strategy occurs *everywhere*.

The classic checklist for quick strategic assessments is SWOT: Strengths, Weaknesses, Opportunities, Threats. (If you're not familiar with this, you can look it up in almost any management textbook.) It's a useful tool, but it does have some real limitations, especially around the impact of strategy on overall effectiveness. Rethinking SWOT as SCORE gives us a versatile alternative with a stronger emphasis on effectiveness, and gives us a chance to test out in practice some of the principles we've seen so far.

So it's useful to explore in brief the constraints of SWOT, and how SCORE resolves those limitations. Here we'll look at how to use SCORE in practice, and end with a real-world SCORE example, about data-architecture strategy in the utilities industry.

Like SWOT, SCORE is an acronym for a strategy checklist:

- Strengths
- Challenges
- Options
- Responses
- Effectiveness

We focus in turn on our Strengths; our Challenges; our Options and opportunities; the probable Responses and returns of the strategy; and the impact on overall Effectiveness.

Another difference is that we're also looking for anything we can measure, either qualitative or quantitative – hence “What's the SCORE?”. And we do the same assessment before *and* after we apply the strategy – which tells us whether or not the strategy actually worked.

Critique of SWOT

Why rethink SWOT? After all, it's been around for decades, and it's easy to understand and use. It has the same kind of two-axis matrix beloved by consultants everywhere – in this case, assets versus concerns, and 'internal' versus 'external' relative to the enterprise. And its methodology is about as simple as it gets: tick the boxes, and you're just about done. “Strengths? Weaknesses? Opportunities? Threats? Everything look okay? Right, let's do it!”

| | | |
|-----------------|--------------|----------------|
| | <i>asset</i> | <i>concern</i> |
| <i>internal</i> | strength | weakness |
| <i>external</i> | opportunity | threat |

SWOT – a classic two-axis matrix

SWOT is great for a quick check. But its subtle yet serious limitations do create real problems in developing strategy, and in devolving that strategy into tactics.

One is that some of its language can be pejorative and misleading, and introduces a spurious sense of danger – literally, of weakness, or of threat. ‘Weakness’ also implies inadequacy, ‘not good enough’ and so on – which can be awkward when we're assessing people-issues.

It also creates an arbitrary boundary between ‘inside’ and ‘outside’. This isn't helpful when the boundary between ‘us and them’ is blurred – as it must be, for example, in value-webs or end-to-

end networks where our customers may also be our suppliers, or in consortia where our nominal competitors are also our partners.

And SWOT doesn't really have the breadth of scope to cope with whole-of-system context, or continuity over time. Issues tend to be viewed in isolation, as strategy for *this* single issue, ignoring its broader background. The process tends to be used 'once-off', then forgotten: in some cases it may be repeated, but there's no explicit requirement to create links between repetitions.

So to make SWOT more useful in today's more complex world, we need to make the language more real – not 'weaknesses' or 'threats'. We need to adapt it for use in broader, more complex contexts, in which boundaries between 'inside' and 'outside' may be blurred by multi-organisation partnerships and value-webs. We also need to adapt it for a more holistic view, how each asset or concern interacts with others – in other words, assess impact on *overall* effectiveness. And we need to enhance the methodology, using iterative reviews with qualitative / quantitative scores, and 'before and after' comparison of reviews and scores.

The revision as SCORE addresses all of these concerns.

SCORE process

SCORE addresses those requirements with a SWOT-like checklist as a framework for strategy:

- Strengths / services / support: what we already have – existing capabilities and resources, potential for synergies
- Challenges / capabilities needed: what we know we need, or need to address – 'weaknesses' indicate needed capabilities and resources
- Options / opportunities and risks: look at the outside world for options and opportunities – opportunity is also risk, risk is also opportunity
- Responses / returns / rewards: probable responses of the outside world to the chosen strategy – probable or emergent consequences of action or inaction
- Effectiveness: probable impacts of the strategy on overall effectiveness – efficient, reliable, elegant, appropriate, integrated

Where this differs from SWOT is that we do this iteratively and recursively, comparing each dimension against the others; and we look for and record anything that can be measured, so we can assess the success of the strategy in future.

The questions for the **Strengths** dimension are much the same as for SWOT, except that we need to look both inside *and* outside our own organisation for shared strengths and support:

- *Strengths*: What would we regard as our strengths in this?
- *Services*: What services and capabilities do we have? What services can we call on from others?
- *Support*: What support-resources do we have available to us? What support do we have, from others?

The work of projects is carried out through services and capabilities, so these questions also help to identify the existing components of a 'service-oriented architecture' for the enterprise.

The subsidiary questions about support are essential. Without explicit support from senior management, the project can only be run as a concealed 'skunk-works' project – which would mean a lot more work overall, for everyone.

From here we gain both an inventory of strengths and services, and a list of probable partners in the project – in other words, what we have available to respond to opportunities, and to support the change-roadmap.

The questions for the **Challenges** dimension are again similar to SWOT. But we avoid SWOT's pejorative term 'weakness' here, instead concentrating much more on gap-analysis – on identifying what would be needed in order to achieve the key success criteria for the project:

- *Challenges*: What are the issues we need to address, within the organisation, and in relationships with partners, suppliers, other stakeholders?
- *Capabilities needed*: What new capabilities and services would we need? What skills would be required? What would be needed to develop these skills and services?

The end-result of this direction of questioning is a list of internal project-risks, and also of needed capabilities – and hence core content for a roadmap for change.

Opportunities give rise to **Options**, which in turn provide the formal basis for a 'roadmap' for change:

- *Opportunities*: What opportunities present themselves? What risks arise from with those opportunities? What opportunities arise from apparent risks?
- *Options*: What are our options in relation to those opportunities and risks? How can we act on those options? How should we prioritise those options and actions?

As with SWOT, we should be looking mostly outward here, at the 'outside' world – potential customers, partners, providers and the like.

But unlike SWOT, we always assess opportunities and risks *together*, because each is the flipside of the other: opportunities bring concomitant risks, and risks (SWOT's 'threats') also always present opportunities.

What we're looking at here – and looking *for* – are the drivers for business change: the opportunities and risks, and our options to respond to each. This identifies the *reasons* for the changes that we need to make, the priorities for the change-roadmap, and external project-risks arising directly from those opportunities.

Where 'Opportunities' is about how we look at the outside world, the **Responses** questions are more about how the outside world impinges on us:

- *Responses*: What responses would we expect from other stakeholders? from customers? competitors? providers? partners?
- *Regulations*: What regulations might arise in response to our strategy? What would be the impacts of new or upcoming legislation?
- *Returns / rewards*: What is the business value of each opportunity and risk?

Even a brief focus on regulation and legislation also helps to expand our awareness of longer-term impacts – legislation may move at a much slower pace than business cycles, for example, but its impacts cannot be avoided forever!

At least some of these expected responses should be measurable, identifying the overall returns or rewards – in other words, the business case (if any) for the strategy, and the external risks impinging indirectly on the opportunities.

The **Effectiveness** questions are the key difference from conventional SWOT analysis:

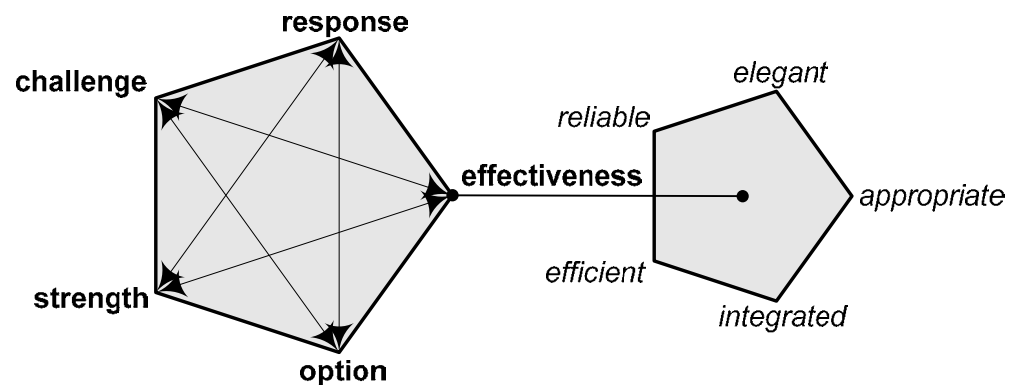
- *Efficient*: Does it optimise use of resources, minimise wastage of resources?

- *Reliable*: Is it predictable, consistent, self-correcting?
- *Elegant*: Does it have clarity, simplicity, consistency? Is it self-adjusting for human factors?
- *Appropriate*: Does it support and maximise support for business purpose?
- *Integrated*: Does it create, support and maximise synergy across all systems?

This identifies how well the 'as-is' and 'to-be' systems fit in with everything else. The aim here is to resolve a classic business dilemma: how to ensure that improvements in efficiency in one area do not cause greater inefficiencies elsewhere – a common result of traditional analysis techniques.

Working with the above questions, the steps of the SCORE methodology are as follows:

1. Select an issue
2. Start the SCORE checklist anywhere, on any dimension (often start with Strengths, or Options, but it's not required)
3. Work through all dimensions in the list (repeat and iterate in any order)
4. Assess impact of each item on effectiveness
5. Identify and record any measurable items such as new capabilities, and compare against previous SCORE assessments



Visual representation of the SCORE methodology

Once we select an issue to assess, we can start from any dimension. We then work through all of the SCORE dimensions, using the viewpoint of each dimension as a perspective on each of the other dimensions.

And for everything that we identify, we always look at its impact on overall effectiveness, using the effectiveness-checklist: efficient, reliable, elegant, appropriate, integrated.

We also keep an eye open for anything that can be measured, whether as a numeric value or qualitatively – for example, a new capability that didn't exist at the time of a previous SCORE assessment. The reason for this is simple: it's a lot easier to manage things that can be measured.

At the end of the SCORE assessment, these are the kinds of documents we would expect to have to hand, to guide subsequent change:

- *'Strengths' dimension*: capabilities / services inventory, support / partner-map
- *'Challenges' dimension*: prioritised requirements and roadmap for change, risks / issues register
- *'Options' dimension*: strategy scenarios, opportunity / risk trade-off register
- *'Responses' dimension*: business case(s), risk-management scenarios
- *'Effectiveness' dimension*: project impact / integration assessments

To summarise, SCORE extends SWOT analysis with a new emphasis on overall *effectiveness*. Where SWOT is a single pass through the checklist, SCORE is iterative: we repeat the process as required, to address all issues and side-themes. At the end of the process, the documents produced should provide us with a clear roadmap for business change.

SCORE in practice – a real-world example

[[see published book for more detail]]

Using SWOT and SCORE

[[see published book for more detail]]

SEMPER

Overview

There's an old saying in business that "if you can't measure it, you can't manage it". Whilst that's not entirely true, there's no doubt that having *some* kind of metric usually makes management much easier. The catch is that most conventional metrics such as financial performance, return on investment, productivity, error rates and customer-satisfaction indices are all *lag-indicators*, or measurements of *past* performance. Using those metrics alone is like trying to drive the enterprise by looking in the rear-view mirror.

Instead, what we need most for management are *lead-indicators*, describing the structural elements that drive *future* performance. The SEMPER metric combines the themes of the previous chapters – the dimensions of effectiveness and relevance, and how they interact with each other – as a simple method to measure the available 'ability to do work' in the enterprise. In effect, SEMPER measures integration and performance at the innerstructure level, describing the productive capability of the entire enterprise. This provides us with a real-time 'dashboard' that tells us where the enterprise is going – not just where it's been.

This in turn points to interventions which, although they usually apply to specific and localised issues, still always act on the enterprise *as a whole*. So whilst the conventional metrics will always be important, and useful in their own ways in the right context, the picture provided by a SEMPER assessment may well be the only one that really matters.

Principles

[[see published book for more detail]]

Assessment

Assessment can be carried out using either of the two current variants: SEMPER-5 and SEMPER-11.

SEMPER-5 – see *SEMPER-5*, p.30 – is a simpler variant for quick assessments and for more general use. Based on the Five Elements version of the framework, and with a simplified scoring system, it can be used with only minimal training – the material in this book should suffice as a start. By mapping between Five Elements and the full tetradian, results from SEMPER-5 assessments are upwards-compatible: in the software-based versions, SEMPER-5 data-sets can be imported direct into a SEMPER-11 data-set.

SEMPER-11 – see *SEMPER-11*, p.34 – is a more advanced variant based on the full tetradian version of the framework. It's best used by experienced consultants, as the scoring system requires a good understanding of systems-theory and organisational complexity. But it does provide a richer mapping between domains and actions, to support more precise targeting of interventions. The inclusion of the tetradian link-themes in the assessment also permits a broader range of choices for alternative interventions in the more difficult cases – those with many low '1'- or '2'-type scores.

[[see published book for more detail]]

Scoring an assessment

[[see published book for more detail]]

Notes on scoring

[[see published book for more detail]]

Aggregations – using multiple perspectives

A single SEMPER assessment in itself provides a useful 'dashboard' view. SEMPER's design draws out the characteristic reflexion of all complex-systems, so even a single perspective will still

portray a meaningful and valid view of the whole enterprise. Yet often the greatest value comes from aggregations which combine or compare data from several different assessments.

[[see published book for more detail]]

Interpretation

The SEMPER diagnostic describes a view of the whole context from one group's or person's perspective. In effect, it provides a means to quantify not just individual performance, but integration and effectiveness of the context *as a whole*. The scores in each domain and category identify key indicators of effectiveness not only within the specific area, but also in relation to the whole *as whole*. The optional trend-adjustment for the score provides an additional 'lead-indicator' for the future, identifying potential problems to be addressed or areas that can be leveraged to improve overall integration, using the key start-anywhere principle of the framework.

[[see published book for more detail]]

Overall scores

Specific scoring issues

Suggested actions

The notes above summarise what the SEMPER-5 diagnostic shows about an enterprise; but what happens next? What would the results suggest we should do differently come Monday morning? In practice, this always depends on which areas are highlighted for action – either because they are weaker, or because they can be leveraged to help lift other aspects of the organisation's game.

[[see published book for more detail]]

From assessment to action

SEMPER-5

Overview

Use and interpretation of the full SEMPER-11 diagnostic requires specialist skills, especially in assessments for large, complex organisations. Yet there's also a clear need for a simpler metric which covers the same overall scope, but which is more closely matched to the needs and experience of general business users.

SEMPER-5 fills this gap. It is particularly appropriate as a means to collect quick 'snapshot' views of the organisation, often for re-use in aggregations such as cross-departmental 'scorecards' and 360° feedback. Assessments created with SEMPER-5 are also upwards compatible with the full SEMPER model.

[[see published book for more detail]]

Structure

[[see published book for more detail]]

Assessment and interventions

The following notes summarise assessment and suggested intervention techniques for each 'cell' – pairing of domain and category – in SEMPER-5. The matching tetradian link-theme is shown in brackets after the cell-name; note that link-themes may apply to several cells, or be split across different cells.

[[see published book for more detail]]

SEMPER-5 ASSESSMENT

[[see published book for more detail – example section follows]]

Performance - bringing it all together

Efficient - Beliefs and business models support overall integration

| <i>Example description</i> | <i>Score</i> | <i>Trend</i> |
|--|--------------|--------------|
| "Benchmarks can be useful, but they focus on the past, not the future" | 5 | |
| "We benchmark our performance against world's best practice in any industry" | 4 | |
| "We benchmark our performance against our industry competitors" | 3 | |
| "We benchmark our performance against the previous quarter" | 2 | |
| "Benchmarks? – we don't have time to waste on that stuff" | 1 | |

Reliable - Everyone is involved in system-wide feedback and reflection

| <i>Example description</i> | <i>Score</i> | <i>Trend</i> |
|--|--------------|--------------|
| "We involve everyone in improving overall performance" | 5 | |
| "We move whole teams around to gain different perspectives" | 4 | |
| "Our managers are encouraged to walk round to gain different perspectives" | 3 | |
| "We do performance surveys, but nothing much seems to come from them" | 2 | |
| "It's a 'Shut up and do what you're told' mentality" | 1 | |

Elegant - Integration supports diversity of skills, background and experience

| <i>Example description</i> | <i>Score</i> | <i>Trend</i> |
|---|--------------|--------------|
| "What's diversity? (Isn't it people just being who they are?)" | 5 | |
| "We use our staff's diversity and background to support our business goals" | 4 | |
| "We have compliance with best practice on equity and diversity" | 3 | |
| "Each department tends to form its own clique, its own clan" | 2 | |
| "What's diversity?" | 1 | |

Appropriate - Metrics indicate when the enterprise is effective and 'on purpose'

| <i>Example description</i> | <i>Score</i> | <i>Trend</i> |
|--|--------------|--------------|
| "Our successes and failures help to remind us of who we are and what we stand for" | 5 | |
| "We're doing okay as long as we remember to celebrate our successes" | 4 | |
| "We're doing okay as long as we keep to strategy and ahead of change" | 3 | |
| "We're doing okay as long as we meet our department's quarterly targets" | 2 | |
| "All we do is chase our tails" | 1 | |

Integrated - Appropriate metrics support overall integration

| <i>Example description</i> | <i>Score</i> | <i>Trend</i> |
|---|--------------|--------------|
| "Measuring intangibles tells us the health of our culture and our place in the world" | 5 | |
| "Measuring tangibles and intangibles together helps us make sense of where we are" | 4 | |
| "We do regular audits of intangibles like reputation, satisfaction and brand awareness" | 3 | |
| "We sometimes do staff satisfaction surveys, but I don't know if anyone reads them" | 2 | |
| "Measuring touchy-feely stuff is a waste of time – shareholder value is all that matters" | 1 | |

Notes / comments:

SEMPER-11

Overview

SEMPER-11 – also known as Standard SEMPER – provides a more detailed view of the enterprise innerstructure and its present and likely future condition, its overall ‘ability to do work’.

The end-result of the diagnostic is a ‘dashboard’ of the current state of the enterprise.

By mapping tools and techniques to SEMPER-11 domains, the diagnostic also provides a means to target interventions with more precision than is usually available with conventional approaches.

[[see published book for more detail]]

Structure

A SEMPER-11 assessment covers eleven distinct domains, as defined by the tetradian framework:

- the four *dimensions*: behavioural/physical, conceptual/mental, relational/emotional, and aspirational/spiritual;
- the six *link-themes* between those dimensions: vision and values, leadership, active learning, narrative and dialogue, sensemaking and foresight, responsibility and empowerment; and
- an overview-domain of *integration* between all the dimensions and link-themes.

[[see published book for more detail]]

Assessment and interventions

[[see published book for more detail]]

SEMPER-1 | ASSESSMENT

[[see published book for more detail – example section follows]]

Concepts - knowledge and mindset

| <i>Dimension</i> | <i>Score</i> | <i>Trend</i> |
|---|--------------|--------------|
| Efficient - Effort needed to create / maintain knowledge and innovation <i>Score high for easily / consistently maintained; low for high effort / 'fire-fighting'</i> | 1 2 3 4 5 | |
| Reliable - Knowledge provided is available, accurate and complete <i>Score low if support is provided only for explicit knowledge or only for tacit knowledge; also score low for any tendency to treat conceptual assets as physical</i> | 1 2 3 4 5 | |
| Elegant - Knowledge provided is usable, relevant and in sufficient detail <i>Score low for both under-provision and over-provision of information - e.g. email glut</i> | 1 2 3 4 5 | |
| Appropriate - Knowledge and beliefs support business purpose <i>Also score low if multi-axis reporting - e.g. Balanced Scorecard - is not used</i> | 1 2 3 4 5 | |
| Integrated – Shared knowledge linked with all other aspects of the enterprise | 1 2 3 4 5 | |

Notes / comments:

APPENDIX A: GLOSSARY

This glossary describes specific meanings of terms used in SEMPER. Cross-references between terms are shown in *italic* text.

[[see published book for more detail]]

APPENDIX B: SOURCES AND RESOURCES

This section lists sources for books, white-papers and other on-line resources mentioned in the text.

[[see published book for more detail]]