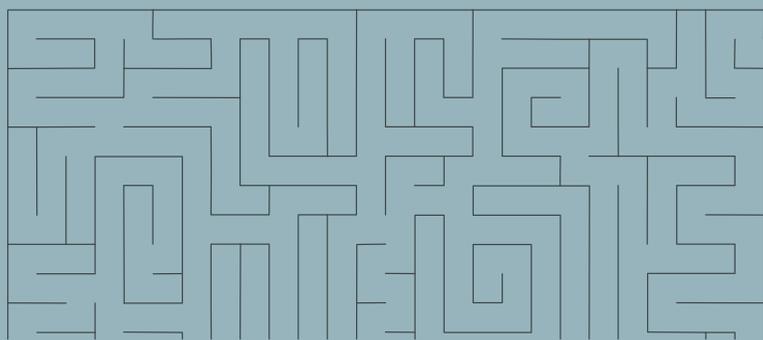
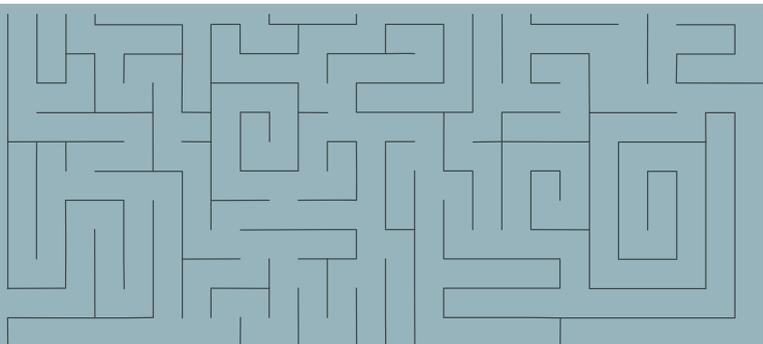


THE SIMPLICITY OF LEAN



DEFEATING COMPLEXITY, DELIVERING EXCELLENCE



PHILIP HOLT

WHAT INDUSTRY EXPERTS SAY ABOUT

The Simplicity of Lean

“Philip has written a practical book about the why and how of Lean, a simple model for consistent growth and continuous improvement. I actually wish he had written this book before I started my Lean learning journey. It will be a great help to anyone embarked on the learning curve, full of practical and applicable lessons and complemented with Hansei reflection space. Lean makes life easier, especially when under Philip’s guidance. Who does not need a little simplicity these days to ensure that we can focus on the things that matter, like growth and innovation?”

Simone Noordegraaf – CEO of iPEC Coaching Europe and Executive Coach

“With *The Simplicity of Lean*, Philip has created a comprehensive overview of the fundamental thinking behind Lean, as well as how to apply the lean tools in a pragmatic way. A very useful guide to jump-start your Lean journey or a good refresher for people who are already underway”

Hans van’t Riet – VP, Transformation Leader & Head of Implementation Competence Centre, Philips

“Organisational transformation is notoriously difficult to achieve and even harder to sustain, not least due to the complexity of the myriad human factors involved. In *The Simplicity of Lean*, Philip addresses some of the key elements of a successful Lean Transformation, from expectations to leaders’ beliefs. The book contains some real gems, focused on people issues, making it an excellent guide to the technical and social application of Lean.”

David Bovis – Managing Director, Duxinaroe Ltd and Business Consulting Associate Director, Grant Thornton LLP

“In ***The Simplicity of Lean***, Philip provides a powerful and versatile array of management tools. Most importantly however, these tools are presented in a context that connects with the realities of daily operations, both technical and interpersonal. Philip doesn’t just give you the tools, he gives you a framework for introducing these tools to the people who will use and sustain them. He accomplishes this through both thought experiments and real personal stories from the Gemba. Understanding “The Simplicity of Lean” will enable you to overcome the complex challenges that all organisations face in creating a better future for your company, its customers and your community.”

Collin McLoughlin – Author of *True Kaizen*, Founder of Enna, an imprint of Productivity Press

“***The Simplicity of Lean*** is an ideal companion for the Lean Practitioner. Written in a very personal manner, it addresses the four key elements necessary to put a lean culture in place. Based on experiences in both manufacturing and office based activity, it educates the reader on the core devices within each of these key elements. Gems of personal insight and reflection will make this a thought provoking read for both experienced and novice Lean Practitioners. Before you lead with Lean, you first need to understand the fundamentals of Lean, and how to put a Lean system in place. This book provides that practical model and is ideal for those embarking on the journey to create a Lean culture.”

Jon Tudor – Managing Director, True North Excellence and former President, Association for Manufacturing Excellence (UK)

THE SIMPLICITY OF LEAN



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Foreword

Philip and I did our Master's degree (MBA) together at the Warwick Business School (University of Warwick, UK) and it is a great privilege for me to write this foreword. We share a common vision when it comes to Lean and operational excellence. That mission is to demystify and contextualize the tools and techniques of Lean so people can truly take ownership of their work at every level of the organisation. This personal engagement factor affects everyone and without dedication from the frontlines to top leadership, even the best improvement ideas cannot be sustained.

As we have each progressed on our own journeys, implanting Lean methods into organisations around the world, we have found that while many organisations are familiar with the powerful tools and techniques, there is a lack of connection between these tools and the day to day realities of their application. Companies conduct workshops and put up visual management boards, but there is a disconnection between the tools, the people who use them and the actual needs of the organisation. Philip's book is a great place to start in order to solve this problem. If you are new to Lean, this book will set you on the right track. If you have been trying to implement Lean tools with limited results, this book will give you a fresh perspective and get you back on track by developing a strong culture that is supported by the right approaches at each level and department of your organisation.

In **The Simplicity of Lean** Philip provides a powerful and versatile array of management tools. Most importantly however, these tools are presented in a context that connects with the realities of daily operations, both technical and interpersonal. Philip doesn't just give you the tools, he gives you a framework for introducing these tools to the people who will use and sustain them. He accomplishes this through both thought experiments and real personal stories from the Gemba.

One of the most useful features of this book is the "Hansei" section at the end of each chapter. Hansei is a traditional Japanese approach to self-reflection that

allows you to learn from past mistakes and develop yourself. These sections provide space for you, the reader, to reflect on what you have just read and define ways you can implement what you have learned. I suggest that anyone reading this book should take advantage of the Hansei sections. In order to achieve results with Lean, Kaizen, or any other method, you must apply the ideas you learn on your Gemba — your actual place of work. Practicing Hansei between chapters is a bridge to actually implementing your new knowledge.

Even when Lean is simplified, contextualized and demystified, implementing it is no easy task. It will take dedication as well as trial and error to apply these techniques to your unique circumstances, but starting with a great teacher like Philip will give you a decisive advantage. By understanding “The Simplicity of Lean”, you will be able to overcome the complex challenges that all organisations face, creating a better future for your company, its customers and your community.

Collin McLoughlin

Author of ***True Kaizen***, Founder of Enna, an imprint of Productivity Press

CHAPTER 1

Introduction

THE SIMPLICITY OF LEAN

Lean means many things to many people and its success or failure is important to a large number of stakeholders: customers, employees, management, shareholders, suppliers, and society as a whole. Is Lean a toolkit? Is it about cost saving? Is it a way of thinking? Or is it a fundamental and strategic shift in the culture of an organisation?

The importance of this question to each of the stakeholders might appear different but essentially, getting the answer right will result in each of the stakeholders benefitting in a substantial way. Customers will see their services, quality and total cost of ownership improve, while employees will find their work more rewarding, both in terms of their engagement with the work and their financial recompense. Management will experience a more engaged workforce, who solve problems and improve processes daily, freeing up the managers' time to build and grow the business. Managers will practice an improved form of leadership, one that supports dynamic and effective teamwork and allows them to achieve the success that they desire. Shareholders will find that their investment in the organisation provides a superior return to that of the overall market, and that the company features as one that is both sustainable and ethical. It will be one of the jewels in the crown of their investments. Finally, suppliers will find that they're valued more highly by their customer, with a relationship far less focussed on price and instead, built around the total cost of ownership and innovation, with a customer-supplier relationship based on trust and the long-term.

Answering the question of what Lean means is critical to its successful adoption by an organisation, and one of the challenges that I find many people experience is how exactly to do this. The purpose of *The Simplicity of Lean* is therefore

to help the reader to get to the right answer, and to adopt Lean Thinking and Lean Leadership into their organisation.

I chose the title of the book to convey that Lean injects simplicity into an organisation. However please don't misunderstand from my use of the word simplicity, that deploying Lean into an organisation's culture is easy, or that it is overtly simple. This is not the intention in my choice of the word. Rather it is because I truly believe in, and have experienced, the simplicity that Lean brings to an organisation. Nevertheless, the approach that one must take to achieve this simplicity will require the removal of significant complexity in the organisation, both in terms of complicated processes built up over many years, and the cultural norms of behaviour that will be well-rooted.

In fact, one of the most common mistakes that I observe organisations make in their deployment of Lean is the over-simplification of the approach that they take.

As Albert Einstein famously said: *"Things should be made as simple as possible but not any simpler"*

The corollary, 'but not any simpler', is often omitted from the quotation, yet it is the most important part of simplicity, and inherent in the thinking contained within this book.

I am quietly confident, that as the reader progresses through the book, they will gain the knowledge that they require to establish just how they can integrate Lean thinking and Lean leadership into the fabric of their organisation's culture, and answer the question, 'What is Lean?'

OPERATIONAL EXCELLENCE IS A STRATEGIC ADVANTAGE

It's a truism that a clear majority of executive teams have the ambition to deliver a breakthrough in their organisation's performance and that their strategy operates to this end. However, whilst there are some famous examples of organisations that really break the mould with their innovative business models, Apple,

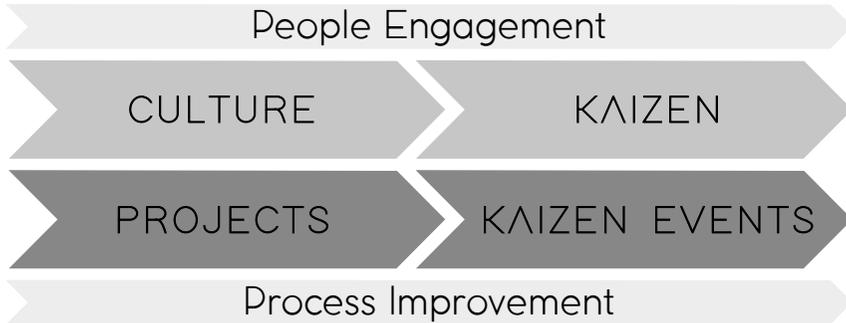
Microsoft, Tesla and Alibaba for example, what is important to keep in mind is that they are not the only innovative companies in their marketplace. Importantly, but perhaps a little too prosaically for the mainstream media, they also owe a great deal of their success to being rather good at the more mundane elements of operational excellence.

In the results of research by Raffaella Sadun, Nicholas Bloom and John Van Reenen of the Harvard Business School¹, the importance of good management and operational excellence were clearly demonstrated, concluding that, *“Nobody has ever argued that operational excellence doesn’t matter. But we contend that it should be treated as a crucial complement to strategy - and that this is true now more than ever.”*

There are many great examples of organisations which have utilised Lean leadership to achieve the state of operational excellence that provides them with a competitive advantage, and this research by the Harvard Business School provides solid data confirming what many of us have known from the empirical examples. In his book, *The Lean Turnaround*², Art Byrne wrote about his experiences as a CEO over a period of 30 years, and how Lean was his strategy for the business success that he achieved; this was a great example of how the ‘C-Suite’ can deploy Lean leadership. But while the senior leadership must be engaged, I also want to explain how the simplicity of Lean is the impact that we can all make with its adoption as a fundamental way of thinking and acting. Lean leadership will deliver excellence for your organisation, but in order to do so Lean cannot be what you do, but must instead be how you think, and who you are.

THE SIMPLICITY MODEL

My first book, *Leading with Lean*³, was an experienced-based guide to Leading a Lean transformation, and was intended to take the reader through their own journey of leadership development. Because of the enthusiastic feedback that I received, and the many questions and requests for more information around some of the core methodologies of Lean thinking, it became clear that, to complement my Lean leadership model, a Lean practice model was also necessary. I have called this the Simplicity Model.



The Simplicity Model (a Lean Practice Model) – Philip Holt

Whilst I introduced many of the Lean methodologies in *Leading with Lean*, as well as the VIRAL model ⁴ for Lean Deployment, what the Lean practice model does is to provide the Lean practitioner with a codification of the Lean drivers of the two key outcomes of Lean leadership:

1. People Engagement
2. Process Improvement

Through the utilisation of the simplicity model, the Lean practitioner can navigate the initial parts of their Lean journey, hopefully avoiding some of the usual pitfalls. This will make Lean leadership an even more attainable goal for the Lean practitioner. *The Simplicity of Lean* is therefore an anthology of the core methodologies that the Lean leader will apply to effect the required change in the culture; embed Kaizen into the organisation, deliver upon the transformational projects and engender active participation of the team members in Kaizen events. Collectively, these efforts will deliver organisational simplicity through a high degree of people engagement and process improvement.

HANSEI

From an early age, Japanese children learn what the Japanese call ‘Hansei’, a form of self-reflection to understand what went wrong in a given situation and to learn from it. From their first social interactions at kindergarten, when a Japanese child behaves in a way deemed unacceptable to their teacher, they will be asked to take some Hansei time to think about what they have done wrong and then explain their reflections to their teacher, what they might do differently in the future. Whilst it could be argued that children are often asked to ‘think about what you’ve done’ in Western society, it is much more common for the child to be told what it is that they did wrong and how they should adjust their behaviour to conform in the future. This differs from the approach taken with the Japanese school child.

The habit of Hansei is probably one of the key differences between the Japanese and Western way of thinking. This may go some way toward explaining why problem solving in the form of the Deming or PDCA Cycle was adopted with such sustainability by a large number of Japanese companies, and resonates at every level in the organisation, from practical problem solving at the shop-floor level through to Hoshin Kanri at the board level. This way of reflecting on, and improving one’s performance (effectively personal practise of the check and act parts of the cycle), is central to Coaching Leadership, the fourth and final leadership style of the Lean Leader (see *Leading with Lean*). The Lean Leader must be able to both practise and teach Hansei in order to garner the level of deep reflection that the Lean Organisation requires. When the Lean Leader is able to practise Hansei as a habit, a certain freedom of action is achieved, whereby they feel free to experiment with new approaches and accept challenges without the fear of failure. It is a liberating experience.

To support your development of this practice, at the end of every chapter there is a blank page for your reflections. Hansei ⁵ is an opportunity for “reflecting back on one’s self, one’s own action” and therefore provides the reader with a few moments to think about what they have just read and how it links to their own way of working and acting. Therefore, I would encourage that, at the end of each chapter, and before reading further, you take a pen and write down your thoughts:

In relation to your own way of working and actions, what are:

1. Your key learning points?
2. The changes that you could make?
3. Current problems that they would help to solve?

By doing this at the end of every chapter, you will hopefully already be practising a key element of a Lean leader, that of being a continuous learner.

PERSONAL STORIES

While writing this book, I was struck by the many examples of people with whom I've worked, who have really made a change in their way of working through *The Simplicity of Lean*. I therefore asked several of them to write down their own experiences for inclusion in the book. My hope is that this will help to bring the content of the book to life, the practical application of Lean leadership and Lean thinking into your organisation, and drive home the point that this is not just theory. I also aim to help the reader to bring together some of the content and answer the important question, 'What's in it for me?'

I hope you not only enjoy this book, but that it will inspire you to develop your own Leadership further, and to perhaps break through some of the barriers that have impeded your attempts to transform your organisation.

"That's been one of my mantras – focus and simplicity. Simple can be harder than complex: You have to work hard to get your thinking clean, to make it simple. But it's worth it in the end because, once you get there, you can move mountains."

– Steve Jobs

Hansei

Before moving onto the next chapter, please take a few moments to reflect and, in relation to your own way of working and actions, what are:

Your key learning points?

.....

.....

.....

.....

The changes that you could make?

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Current problems that they would help to solve?

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CHAPTER 2

Daily Management

WHAT IS DAILY MANAGEMENT?

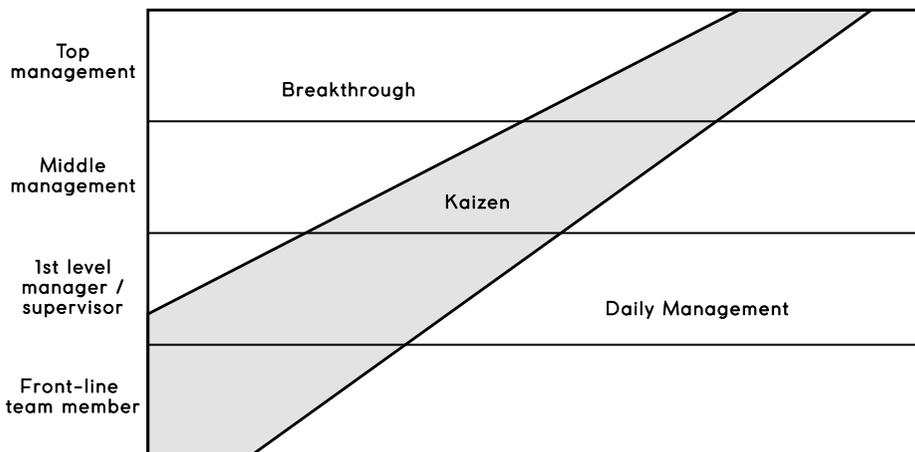
The Lean Leader's mission in installing Lean Thinking within the organisation's culture is focussed on driving the behavioural change of the organisation; encouraging, reinforcing and requiring that the team members and the Leadership consistently repeat the new skills that they have been taught.

They consistently remind themselves and their colleagues of the principles of a Lean Thinking Organisation, until this behaviour becomes a mindset (a way of thinking) and ultimately, a significant part of the culture of the Organisation.



This behavioural intervention point is critical, very much practically based, and contrasts with the more common approach of mindset training. In that approach, team members are trained in the mindset desired by the organisation, possibly with the behaviour discussed and described, but without practical reinforcement on an ongoing and consistent basis. The usual result of that approach is people well versed in the terminology of the principles, mindset and behaviour required, but without well practised application of them. This will not result in the culture change required by the organisation, although it will create a 'cottage industry' of culture change professionals.

The instillation of daily management is one of the most effective levers for change and is our starting point in the simplicity model. It is an effective way of ensuring that the teams work together to manage the business as usual in a collaborative way. Successful companies create a strong problem solving culture (Chapter 4) and daily management promotes it by ensuring that the most important elements of performance are clear to the team, and that performance issues are identified as early as possible.



Daily Management, Kaizen and Breakthrough

Later in the book I cover other elements of the simplicity model, such as Hoshin Kanri and Kaizen, models that require a significant investment of time by the leader. However, most leaders are already too busy, due to a constant fire-fighting of the day-to-day, BAU (Business as Usual). Effective daily management frees up the time to spend on these other Lean methods, which in turn makes the daily management more effective; a self-perpetuating, virtuous cycle.

In Chapter 5 I will cover visual management, a skill upon which daily management relies heavily: the ability to 'read' performance quickly through effective visualisation. Daily management is team-based, visual and as the name suggests, has a regular cadence, with daily being the preferred interval. The focus is on the most critical metrics and when they are off-track, quickly solving the cause to get back on track. In many organisations, performance review meetings are on a less frequent basis, weekly or perhaps even monthly. They involve team members explaining why targets were not met, and often providing a 'good explanation' for why the target was missed. There is a lot of hope involved, as the team tells itself that it missed the targets but that the next period will be back on track. This isn't a criticism of people under these circumstances and if I'm honest with myself I have also done this, feeling inclined to explain to a senior, or colleagues, why my team or I didn't meet targets, and assuring them that we will do so in the next period. This is perhaps without really knowing what will be different, other than convincing myself that I will work much harder to attain the result, even though the team and I have already done our best.

Like most elements of *The Simplicity of Lean*, the important thing about dealing with this problem isn't about dealing with the behavioural symptoms, telling people that what they are doing is wrong, but rather by ensuring that we create the environment, and provide the tools and training, to remove the need to behave in what is a very human manner. Through the implementation of daily management, what we provide are leading metrics that provide the team with indicators of performance, and the tools and skills to problem solve before the failure of the lagging indicators occurs. The leaders provide the empowerment, which requires both giving authority to the team and setting the level of expectation on them to deliver, which allows the team to manage their performance effectively.

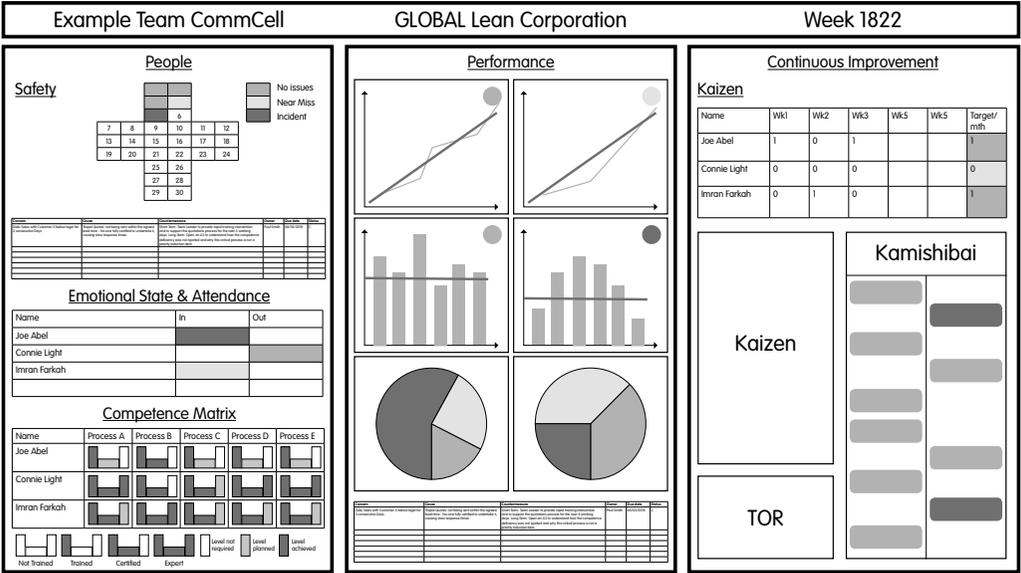
Essentially it is about short interval control, simply put that means we know as early as possible when there is a problem. By doing so, we can avoid individuals or teams 'burying their heads in the sand', in the hope of making up for short-term under-performance. That approach is disingenuous, although it is a natural response, and the short-interval control that we instil through daily management ensures that there is 'nowhere to hide'. Nevertheless, as you will hopefully have realised by now, it is not intended to expose people to blame but rather to help them and the team to face up to problems whilst they are small enough to quickly resolve. This avoids the accumulation of larger problems later and provides the leadership with more opportunity to coach the teams and to delegate activities.

THE COMMCELL

The Communication Cell (CommCell), sometimes referred to as the Daily Management Board (DMB), is simplistic in its nature. However, the inherent difficulty of the CommCell is in the behavioural change that it requires from the leader and the team members.

The layout is very straightforward:

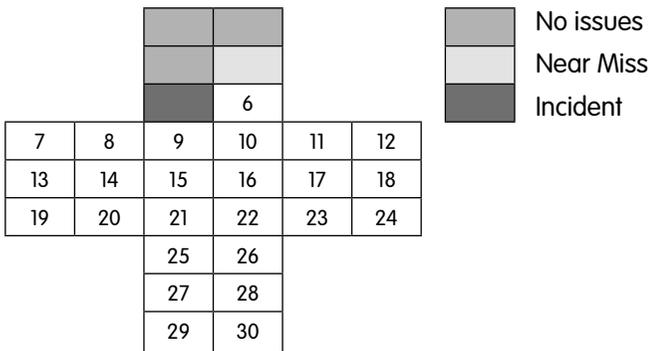
- People
- Performance
- Continuous Improvement



A typical CommCell Layout

1. People

The People section is the area of the CommCell that, as the name suggests, deals with the People concerns. It starts with Safety.



The Safety Cross

The safety cross is a visual and simple method of recording, on a daily basis, any issues that occur and empowering the team to resolve them as their number one priority: Safety First! Where no issues occur, the team can be proud of having recorded a safe day. However in case of a near miss, whereby an accident might potentially have occurred, a minor incident or a serious accident, the incident must be fully investigated to root cause and an effective counter-measure implemented.

In fact, in a Lean thinking organisation, near misses will be considered extremely serious and too close for comfort. Behavioural safety ¹ training will be implemented, and observations of non-compliance noted by the team members, as addressing behaviour that results in unsafe acts will reduce the probability of actual injuries. This approach is based upon the Heinrich principle of safety ² in a workplace: for every accident that causes a major injury there are 29 accidents that cause minor injuries and 300 accidents that cause no injuries (a near miss). In a Lean Organisation, the focus is therefore at the even earlier level of safety, that of the potential safety issue, encouraging and expecting team members to be active in their eradication.

By dealing with the behavioural aspects of safety and ensuring that the creation of, or acceptance of, unsafe acts and conditions is understood by all as unacceptable, team members can proactively prevent incidents. Team members will therefore collaborate daily toward behavioural based safety prevention, discussing issues as the first element of the CommCell, 'Safety First' and capturing concerns on the Safety '3C'.

An important point to note at this stage is that while poor safety is often much easier to see in a manufacturing or logistics environment, and the consequences usually immediate and graphic, the office environment harbours some quite serious hazards. Musculoskeletal risks are often obvious in a manual work environment, with the avoidance and reduction of heavy lifting and repetitive tasks a target of much activity. In the office environment however, there is normally much less ongoing focus on these, with initial or periodic advice on ergonomic seating and working on the computer, but very little day-to-day attention. Long-term issues are therefore cumulative in many offices, without too much concern being shown. More concerning is the fact that more-and-more re-

search is showing that the sedentary lifestyle promoted by office work is extremely harmful to health, with a recent report in the CNN Health publication³ quoting research on around 8000 adults, which demonstrated that the sitting time averaged 12.3 hours per day, out of an average 16 hours waking day.

However, what was striking was that, those people who sat for more than 13 hours per day had a 2-fold increased risk of death than those sitting for less than 11 hours per day. Additionally, those who sat for stretches of less than 30 minutes at a time had a 55% lower risk of death than those who sat for longer than 30 minutes at a stretch, whilst sitting for longer than 90 minutes at a time produced a doubling of risk compared to those sitting for less than 90 minutes per time.

Well-being in the office environment is just as important as it is in the manual work environment, and therefore the 'invisible' threats that exist in the office must be tackled with just as much rigour. In the modern world we also have many colleagues who are suffering from internal and external pressures, work and family problems and going through other difficulties. Mental Health issues, while given much more prominence and less of a stigma than in earlier times, are still very much a hidden problem for many. It is therefore very important that we create workplaces and team dynamics that promote people's willingness to verbalise their problems, and also the education of our team members to help them in providing support to colleagues. Once again, the CommCell and Daily Management can play a significant part in ensuring that the team collaborates and supports each other in a way that breaks down fear and creates a safe environment for people to show their very human frailties and to ask for help.

| Name | In | Out |
|--------------|----|-----|
| Joe Abel | | |
| Connie Light | | |
| Imran Farkah | | |

The Emotional State and Attendance Monitor (ES&AM)

The ESAM (Emotional State and Attendance Monitor) is a simple to use tool that allows the team members to confirm their presence and current feelings. For some, the emotional side of opening up and admitting when they're not feeling fully happy, or engaged with work, can be quite difficult. It can bring forward some reactions and sharing that can be unusual for a lot of workplaces, but what I have universally observed is that teams start to trust and support each other much better when it is practised. Each person selects a token, normally some form of magnetic, coloured disc that reflects their current state of emotion:

- GREEN** – I'm feeling well and am on top of my work
- AMBER** – I'm feeling under some pressure and have issues with delivering to plan
- RED** – I have significant pressure and cannot deliver to plan

They then place this in the 'In' column to identify that they are present. For those team members who are not present, the token from yesterday will be positioned in the 'Out' column. The Team Leader can then discuss with the team any emotional issues that are getting in the way, prioritising those people who are Red and Amber. The person can choose to share within the group, which is often the case and will usually result in a team member's offer of help, while in some cases they will ask to take it off-line and the team leader will speak to them privately after the CommCell meeting. To demonstrate the power of visual management, in the example above you can easily and quickly see that Joe and Imran are present today, and that they're both needing support, with Joe

having a serious issue. This provides the team members, and team leader, with some important information, very quickly.

| Name | Process A | Process B | Process C | Process D | Process E |
|--------------|-----------|-----------|-----------|-----------|-----------|
| Joe Abel | | | | | |
| Connie Light | | | | | |
| Imran Farkah | | | | | |

| | | | | | | |
|-------------|---------|-----------|--------|--------------------|---------------|----------------|
| | | | | | | |
| Not Trained | Trained | Certified | Expert | Level not required | Level planned | Level achieved |

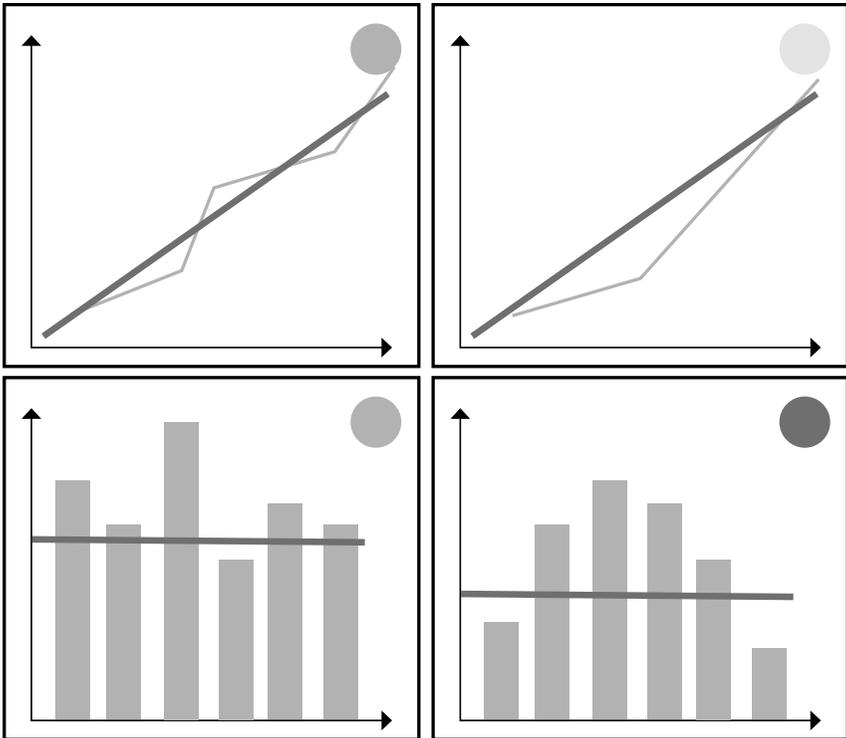
The Competence Matrix

The Competence Matrix is another extremely visual and powerful Lean tool. It addresses competence management and aims to avoid confusing the hiring of skilled people with ensuring that they are competent to manage and run the specific organisational processes. Many people who are extremely good at their chosen profession or trade, and have a fantastic and experienced track record are, metaphorically speaking, thrown into the deep end in a new organisation, department or role, and assumed to be competent to fulfil the requirements with excellence. However, this is often not the case and in my experience is one of the most serious deficiencies in the majority of organisations, as people do their best to find a way to do their job, but often do so inefficiently and with multiple errors.

What the competence matrix does is to capture the most important of the team's processes, activities and tasks and ensures that the competence level of the team members is benchmarked against the standard work, the competence level required for their role, and any training gaps prioritised, training

planned and executed. Unfortunately, in some countries and companies, having competence matrices visible to the team is disallowed by legislative or Union requirements. Where it is a legislative issue, there is little that can be done in the short-term to resolve the visual management element of the competence matrix. However where it is a union requirement, the use of piloting, with the acquiescence of the union and volunteer workers, can help to demonstrate that the competence matrix is a way to enable team members, not to expose them.

2. Performance



Performance Charts

The Performance section of the CommCell is where the team focuses on how the processes are operating and whether there are any issues with them. The intention is to measure as frequently as is sensible, which in some cases might be hourly for a repetitive, high frequency process, or daily for a less frequent output process. Nevertheless, the cadence of the measurement ought not be determined by the frequency of the process end output, but by a meaningful leading indicator. For example, if it is a low takt time manufacturing process, then the measuring frequency might be every cycle, as the manufacturing process could be connected to a real-time monitoring system and data available almost instantaneously. Therefore the performance is managed in real-time and the teams will come together for their CommCell meeting on a shift-by-shift basis and in some cases even more frequently.

In the case of a back office, the data might not be as readily available on a minute-by-minute basis, but it is important that leading indicators are measured on an interval of less than one day. For example, perhaps the process in question is order intake, whereby we would want to keep track of the number of orders taken against target on at least a daily basis, and not wait until the end of the week, or even month. The same can be said for customer payment collections, invoice payments, goods receipting and other such processes. Many people involved in longer takt time processes, such as innovation, marketing, IT Projects, Financial Planning & Accounting, often argue that they can't do daily management, due to the longer duration between activities and outcomes. However, this is a 'red herring', as every day there are activities – leading indicators of outcome – that can be planned for, and their execution tracked. The outcome of any project, even that of a long-term project, is the result of the accumulation of activities undertaken each day. Failure to manage the short-term will result in failure in the longer-term.

The team will monitor their process performance against the targets which, like the measurement, will be set to match a shorter time frame, and to support this they will likely need to be progressive. What I mean by this is two-fold; firstly, that if you have a target for the end of the year that is an improvement on the baseline, it will need to be set to match the improvement activity that you will undertake to achieve the target. Therefore, if you have a target of 90% of sales quotations to be made in under 24 hours by the end of the year, and your cur-

rent baseline (at the beginning of the year) is 75%, your target for January is unlikely to be 90%. The activity being done to bridge the gap and the anticipated effect on the performance need to be reconciled. Therefore a target may be set that will progress throughout the year, along with the planned improvements. Nevertheless, this isn't an excuse to back-end load the target, as that should be seen as a warning sign of a 'hopeful' plan, rather than a solid, root cause based plan of countermeasures.

The second element of a progressive target is within a period. For example, some processes have a cyclical demand, such as manufacturing processes (linked to customer demand), financial processes (month end close, payments, collections, etc.), sales processes (end of month orders), etc. This means that the team might need to set targets that vary per day, or week, to ensure that they understand when there is a real problem (deviation from standard) versus normal variation. Again, this should not be an excuse to set under ambitious targets and the team must ensure that the daily targets set will result in the end of period (week, month, quarter) target being met.

| Concern | Cause | Countermeasure | Owner | Due date | Status |
|---|--|---|------------|------------|--------|
| Daily Sales with Customer X below target for 3 consecutive Days | 'Rapid Quotes' not being sent within the agreed lead-time - No-one fully certified to undertake it, causing slow response times. | Short-Term: Team Leader to provide rapid training intervention and to support the quotations process for the next 5 working days; Long-Term: Open an A3 to understand how the competence deficiency was not spotted and why this critical process is not a priority induction item. | Paul Smith | 04/03/2018 | C |
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The '3C'

The '3Cs' stand for Concern, Cause and Countermeasure, and is a first level problem solving tool that the team will use to pin point and resolve problems daily. In Chapter 4, I'll cover problem solving in more detail but suffice it to say for now, that this is the initial level of problem solving, whereby often the root cause is not fully understood in the short-term. The team will identify concerns related to their performance and rapidly determine the actual problem statement, determining how big a problem it is. Where it is a low priority, they may decide to take no current action, whereas if it is a moderate problem, they may decide to take some immediate action, although it might be that they don't

get to the root cause and instead implement a rapid countermeasure that only addresses the symptoms and doesn't necessarily address the root cause. However where the problem is a clear and present issue, they will assign an owner to address it rapidly. Safety issues, of course, fall into the latter category.

3C Problem solving is great in enabling the team to rapidly prioritise and solve, either on a short-term symptom-based level or root cause basis, the majority of the team's daily issues. However, for a few of those problems, and especially for those that are escalated to the next level, A3 Problem solving will be initiated (Chapter 4), whereby problems are taken by a small team and thoroughly problem solved, truly addressing the root cause of the problem and implementing countermeasures that will make a difference in the longer-term. In some cases, the team at the Gemba ⁴ may put in place some short-term countermeasures to address the symptoms and the issues with which they are dealing, while the overall problem is escalated for the long-term solution that deals with the root cause.

The Performance section will normally begin quite simply, and I usually advise teams to get up and running and develop it as they learn, rather than trying to engineer it to perfection before using it. It is important to make the indicators leading ones, and on as short an interval as possible, to ensure that the team may identify a problem as quickly as possible. The data collected should also be analysed effectively, with the use of Pareto, control charts and the like, providing clear and visual indicators for the team members. Fundamentally, the most important thing is that the team members feel ownership of the metrics, and so their involvement in developing the metrics, acquiring the data and analysing it ought to be high.

3. Continuous Improvement

| Name | Wk1 | Wk2 | Wk3 | Wk5 | Wk5 | Target/ mth |
|--------------|-----|-----|-----|-----|-----|----------------|
| Joe Abel | 1 | 0 | 1 | | | 1 |
| Connie Light | 0 | 0 | 0 | | | 0 |
| Imran Farkah | 0 | 1 | 0 | | | 1 |

Kaizen Tracker

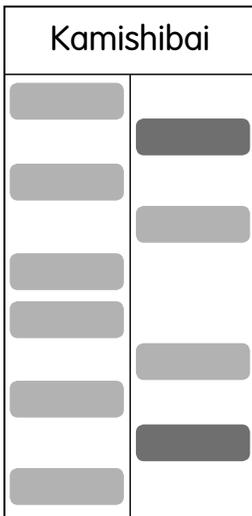
The final section of the CommCell is for Continuous Improvement and usually begins with the Kaizen Tracker, although I have seen many for which the Performance 3C has been located here. There isn't a 'hard and fast' rule on this but my personal preference is for the 3C to be part of the Performance section, to psychologically position it as the natural and mandatory outcome of performance issues and their solution. The Kaizen tracker is, as the name suggests, a way of visually tracking the number of Kaizen implemented per team member, usually on a weekly basis, something I intend covering in more detail in Chapter 11. A Kaizen is only a Kaizen when it:

1. Solves a problem
2. Results in an improvement to the Standard Work
3. Has been implemented and trained to all users

The tracker is used to promote the 'Kaizen everyday' culture, by both providing a little peer pressure, as team members see others doing so, and by giving an opportunity to share the latest Kaizen that has been implemented across the team members. The numbers are normally updated on a weekly basis, with a rolling 4-5 weeks of results, encouraging all team members to implement a Kaizen on at least a monthly basis. When discussing numbers, the question of targets is never far away, and giving Team members targets for Kaizen is a contentious matter. Some believe that targets are essential to drive behavioural change, whilst others believe that they only encourage low quality Kaizen, implemented to meet the target.

My personal approach is to set an informal target, based upon an expectation that is then applied on a team basis, and aggregated for the department or location. To explain, as part of the deployment I will always set the expectation and ambition of 1 Kaizen implemented per person per month. However I would never expect to see that in anyone's personal performance goals in the HR system. Instead, I would expect that every team or group leader has set this target as part of the CommCell and is training and coaching their team members to this target. As a Lean Deployment leader, I would set the expectation to the department or location as part of the evidence of Lean Maturity assessment and would not only look at the numbers, but also audit (Kamishibai – See Chapter 3) the Kaizen to confirm that the quality was high.

The most recent Kaizen will be kept in sleeves on the CommCell for knowledge sharing, information and training purposes and recognition, for example, the Kaizen of the Week or Month are good ways of encouraging participation and having some fun.



The Kamishibai rack

The Kamishibai rack is integral to the maintenance of Daily Management, as it is the method by which the team ensures that every team member believes

in the importance of adherence to processes, problem solving and Kaizen. I deliberately use the term believe, rather than a word such as, recognise or understand, because as I'll describe in more detail in Chapter 3, the activity of Kamishibai is about building trust amongst the team members, and the outcome of that trust building is based more in the emotions than logic; we check that processes are working because we care, and not to catch people out. The Kamishibai approach is a 'layered audit' of a process step and is named after a visual Japanese story-telling approach. The name was adopted because the approach uses visual cards to determine which process the 'auditor' should check, the questions to be asked and the result that is aimed for.

The philosophy of the approach is, that by doing many of these checks on a small scale, more problems will be solved and increased ownership will be encouraged, compared with a traditional audit approach, which typically is larger in scale, uses external (to the department) auditors and is usually undertaken in the spirit of 'Poacher and Gamekeeper'. As with all Lean Thinking, the Kamishibai is essentially about localised ownership, short-interval control, visual management and rapid problem solving. Knowledge and best-practice sharing are also facilitated by this process and can help to remove the barriers of 'knowledge protection' and the 'not invented here' mindset.

The Kamishibai rack is therefore used daily, part of the Leader's Standard Work to check process steps through asking questions, discovering what problems can be resolved and improvements made to the standard, thereby encouraging the implementation of Kaizen.

The Kamishibai rack contains several cards, with the same questions on each side but with one side coloured Green and one side Red. The cards start out on one side of the rack, usually on the left, and a card is taken by the 'checker', who will often select the card based on either a random selection or a pre-determined order. They then use the card to ask the right questions of the person currently working on that process step, creating a dialogue around how the process is performing. Where the outcome of the check is that no issues or non-adherences were found, then the card is placed on the other side of the rack (usually the right-hand side) with the colour green showing. Where there is a problem or non-adherence found, the card is placed with the colour red

showing, and a 3C item will be raised on the CommCell, although often this 3C is quickly closed, as the 'checker' and 'checked' team members will run the problem solving there and then.

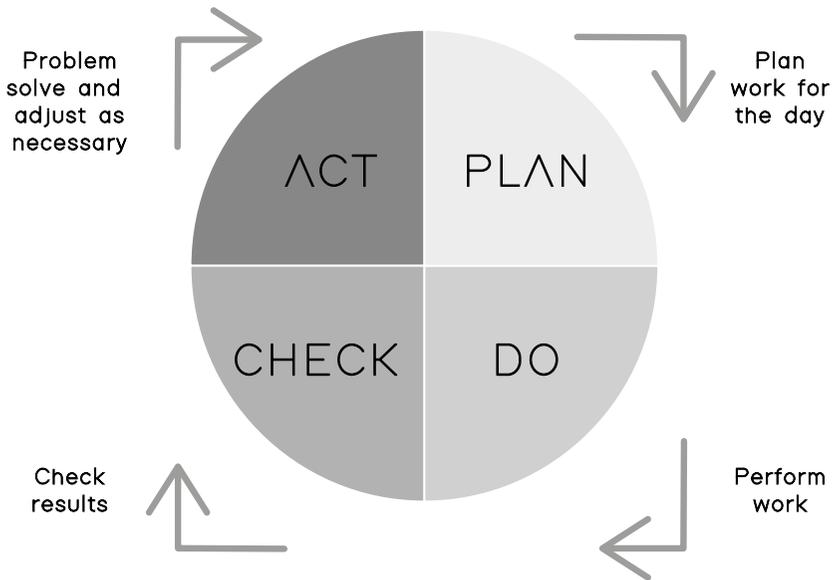
As you can imagine, the high frequency and intimacy of these checks creates a real belief in the necessity of adherence to standard, promotion of knowledge sharing and the development of a Kaizen culture. As was once said to me by a long-standing colleague, Anthony Howarth: *"Kamishibai is the glue that holds the Lean System together"*.

The last item normally found on the CommCell, although it is essentially the starting point of the CommCell process, is the TOR (Terms of Reference) document, which is the document that describes how the CommCell meeting ought to work and is the standard work document for the meeting. The TOR will be elaborated upon in Chapter 7, but as may be seen in the example in this chapter, it identifies the key information about the meeting, such as the day of the meeting, time, format; attendees required, quorum requirement; objectives of the meeting; required inputs for the meeting; the expected outputs; agenda with timings; KPIs of a successful meeting; and finally, the rules or norms of the meeting. The CommCell chairperson, which could be the Team Leader or one of the team members on a rotating basis, will use the TOR to manage the process of the meeting and to ensure that it is effective. A meeting is a step in the overall process of daily management and in a Lean organisation is therefore treated as such; managed effectively to maximise the benefit to the team members in collaborating and performing at a high level.

DAILY ACCOUNTABILITY AND TIER MEETINGS

The CommCell is a great tool and daily management meetings within teams are a great way of improving the alignment and collaboration *within* teams. To be truly effective however, two other things are required, daily accountability and tier meetings⁵ which will assure alignment and collaboration *across* teams. Daily accountability is essential to the effectiveness of Daily Management and is essentially what makes daily management different from traditional operational management approaches. Following a Plan, Do, Check, Act (PDCA) approach,

the leader will ensure that their team have a clear plan for the day's work, that the work is performed on time, that the results are as expected (achieving standard), and that problem solving, and adjustments are made as necessary.



The daily accountability PDCA

This is quite different to a lot of organisations, particularly in the office environment, where work is planned by individuals to suit their own agenda, the performance is inconsistent across team members, results are checked over longer time intervals, weekly or even monthly, and problem solving is ad hoc and ineffective.

Daily accountability is at the core of what the leader needs to be doing, particularly at the team leader (1st level), group leader (2nd level) and area manager (3rd level) of leadership, if they are to be effective at delivering operational excellence. In Chapter 14, I will cover more of this accountability, focussing on the most important level of leadership, that of the team leader (1st level). Tier meet-

ings ensure that daily management is used to drive the daily accountability to the right area, and the right level of the organisation. The daily management meetings, using a CommCell, interconnect through the tiering structure to ensure that problems are escalated and delegated as necessary. The most important thing is that they are undertaken at the Gemba, the place where the value is added, so that they can be quick, fact-based and close to any problems. Tier meetings are a series of daily management meetings that typically run as follows:

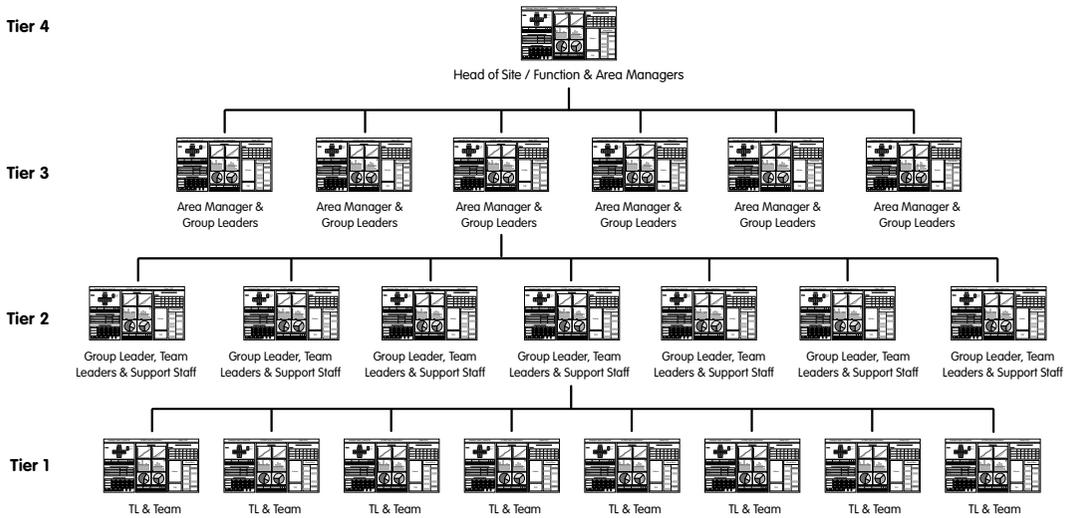
Tier 1 – Team leader and team members

Tier 2 – Group leader and team leaders, plus support staff

Tier 3 – Area manager and group leaders, plus next level support staff

Tier 4 – Head of site or function, and area managers

Whilst the terminology of the job titles may vary in an organisation, it is essential that we get the structure in place that facilitates this 'tiering', as illustrated in the example. This is regardless of the environment and is certainly not only, a 'manufacturing thing'.



An example of a Tier meeting structure

This also emphasises an important aspect of the organisational design, which is span of control. In the example you may see that the group leader to team leader ratio is 1:8, meaning that there are 8 team leaders reporting into the group leader. The ratio will be influenced by the amount and complexity of the work involved, as well as the specialism of the work. However, a good 'rule of thumb' is a span of control of around 8, with a range of 6 to 10 being ideal for most situations, and congruent with the responsibilities of the leader. However, for longer takt times, or in less complicated situations, a span of up to 12 could be acceptable. Where we have ratios lower than 8, we may want to ask whether we have too many leaders, and certainly once we get to less than 6 there is most likely a span of control issue, which will impact alignment and focus. A ratio greater than 10 could impact the leader's ability to provide sufficient attention to their team members, whilst exceeding 12 will certainly do so.

The expectations in the tier meetings are:

- Participants raise any issues that require attention, as soon as they are visible – we don't wait to see if we can fix the issues before raising it. No problems are hidden.
- Support staff should participate at each appropriate tier – we must ensure that we can involve the relevant support staff at the time that the problem is raised.
- The leader of each tier meeting assigns actions, holds people accountable and escalates if needed.
- The meeting is 'sacred' and isn't sacrificed for other meetings.
- The team are fully engaged, and the meetings are chaired and run even when the leader is not available, due to sickness, holiday, business travel, etc.
- In mature organisations, the chairing of the meeting rotates among the participants, with the leader stepping back into team member status for the meeting (but still attending).

Daily management can be hard to get started, particularly in the office environment, where it might be a completely new concept for most participants. There is also the issue of getting hold of data and setting the CommCell up. My advice is not to aim to be perfect before beginning, but instead to get started with a minimal set-up and continuously improve and Kaizen as you progress and learn. However, you must do it if you are serious about becoming a Lean thinking organisation.

“Intellectuals solve problems, geniuses prevent them.”

– Albert Einstein

About the author



Philip is currently Senior Vice President, Global Transformation at GKN Aerospace, the world's leading multi-technology tier 1 aerospace supplier. He was formerly Vice President, Continuous Improvement at Travelport, a leading Travel Commerce Platform, and prior to that held a number of senior Lean Leadership roles with Royal Philips, most notably Head of Continuous Improvement for Philips, Head of Continuous Improvement for the Consumer Lifestyle sector, and Head of Operational Excellence, Accounting Operations. Philip was the lead author of the Philips Lean Excellence Model.

Philip has over 30 years of business experience in leadership roles spanning the customer value chain, in Industry Leading Companies such as GKN Aerospace, Philips, Gillette, and Travelport. During this time he has built up an impressive reputation in Lean Leadership practice and is a regular speaker at industry conferences.

He studied at Manchester Metropolitan University, Warwick Business School, and the University of Pennsylvania (Wharton School).

The Simplicity of Lean: Defeating Complexity; Delivering Excellence is his second book, following on from the success of ***Leading with Lean: An Experience-based guide to Leading a Lean Transformation***.

Lean organisations seem to work in a simple manner and operate with an innate calmness. They have removed much of the complexity that inhibits the performance of other companies, but achieving this level of simplicity is not easy. In *The Simplicity of Lean*, Philip Holt provides a comprehensive handbook of the Lean principles, presented in an accessible and easy to apply manner.

The Simplicity of Lean is a step-by-step guide to the Lean Thinking that makes your organisation more efficient and effective. The book offers the necessary context of how to apply Lean Thinking to make your Lean Transformation successful. Alongside the theory and the practical application of Lean, Philip also shares his personal insights and experiences, as well as individual success stories (and failures) from various Lean leaders from across the world.

The Simplicity of Lean is the perfect guide to make your Lean journey a resounding success.

Philip Holt is Senior Vice President, Global Transformation, at GKN Aerospace and a Board Member of the Operational Excellence Society. He studied Engineering at Manchester Metropolitan University and Management at the Wharton School of Pennsylvania and the University of Warwick, was an engineer at Gillette and led the Lean Deployment worldwide at Philips for over twelve years. He achieved Lean Master status and has summarised his 30+ years of experience and insights into Lean Leadership in his previous book *Leading with Lean* and his most recent book, *The Simplicity of Lean*.

"A powerful and versatile array of management tools, presented in a context that connects with the realities of daily operations, both technical and interpersonal. Philip doesn't just give you the tools, he gives you a framework for introducing these tools to the people who will use and sustain them. *The Simplicity of Lean* will enable you to overcome the complex challenges that all organizations face in creating a better future for your company, its customers and your community."

Collin McLoughlin - Author of *True Kaizen*, Founder of Enna, an imprint of Productivity Press

"*The Simplicity of Lean* is an ideal companion for the Lean Practitioner. Written in a very personal manner, it addresses the four key elements necessary to put a lean culture in place. Gems of personal insight and reflection will make this a thought provoking read for both experienced and novice Lean Practitioners."

Jon Tudor - Managing Director, True North Excellence and former President, Association for Manufacturing Excellence (UK)