



Lean Black Belt Course 1: Lean Strategic Planning and Implementation Participant Workbook



This course outlines and explains how best to achieve a sustainable Lean transformation or roll-out in an organization. It outlines how strategic goals and objectives for Lean and continuous improvement should be developed and explains the most appropriate structure and relevant skill sets that are required in an organization to ensure that a Lean implementation can be fully supported and sustained.

The course also provides guidelines for developing and executing a suitable roadmap for a Lean roll-out. It outlines a strategy for developing and managing a Lean transformation, provides a model for developing a Lean organization and describes an approach for assessing the maturity of an organization as it develops and embeds a Lean culture.

MODULES

- ≡ Course Overview
- ≡ 1. Lean Strategic Planning
- ≡ 2. Managing and Assessing the Lean Transformation

Course Overview

This overview aims to prepare you for the content of course 1 by outlining optional further reading and providing details of the course assignment.

Course Goals

On successful completion of this course, you will be able to:

- ☐ Develop suitable objectives for a Lean transformation/implementation using the Hoshin Kanri technique.
- ☐ Recognize the component, key roles and skill sets required for effective Lean governance and implementation.
- ☐ Develop a high-level Lean implementation roadmap.
- ☐ Identify the elements of required infrastructure and effective strategy for embedding and managing the Lean transformation in an organization.
- ☐ Recognize the role of leadership in managing the Lean transformation.
- ☐ Distinguish between the elements of the “Lean Business Model”.
- ☐ Apply an approach for assessing Lean/continuous improvement maturity within the organization.

The course consists of two modules:

1. Lean strategic planning
2. Managing and assessing the Lean transformation



Preparatory Reading

Prior to commencing the modules for this Course, please read this introduction and the following required reading:

1. **Bicheno J and Holweg M 2016**, The Lean Toolbox: A Handbook for Lean Transformation, PICSIE Books. Pages 4-11.

2. **Institute of Industrial Engineers**, Using Hoshin Kanri to improve the value stream by Elizabeth Cudney (book summary).
(<https://www.iise.org/Details.aspx?id=15060>)
3. **Manos A 2010**, Hoshin promotion, Six Sigma Forum Magazine.
(http://www.hoshinkanripro.com/doc/hoshin_article.pdf)

Course Assignment

Your assignment for this course is to reflect on the extent to which Lean/continuous improvement is currently implemented and governed (if at all) in your organization/facility and to then develop a notional 12 month plan to improve this Lean/continuous improvement rollout (or to plan a new rollout if there is none currently exists).

A Lean implementation plan lays out the tasks involved in rolling out Lean, when they need to be completed, which tools to use, when to use them, and who is going to be responsible for supporting, managing, and implementing them. Without an implementation plan, organizations will fall into the trap of completing 'point improvements'. This trap is one of the major reasons that they fail to reach their full potential. As a Lean Black Belt, you would typically be expected to make a significant contribution to driving and coordinating such a plan.

The plan you develop as part of this assignment should identify the current state of the facility/organization, where it needs to get to, and how it will get there. The assignment will help you to establish a context for your own Lean Black Belt project, so you should clearly identify where and how your project will fit in with the overall plan.

In the report you produce for this assignment, you will need to consider:

☐

The 'burning platform' for the facility/organization

☐

The appropriate Lean organization structure (governance and the key skill sets required for sustainable implementation across the facility/organization)

- ☐ An approach for creating a Lean culture with self-managing, empowered teams
- ☐ A strategy for breaking down cross functional barriers
- ☐ A project queue – how the components of the queue have been selected and the order in which they should be implemented
- ☐ Your Lean Black Belt project and where it sits in the plan

Assignment Deliverables

The assignment should have a **maximum total word count of 3,750 words** and include the following:

- 1 Reflection, description, and critique of the current state of the facility/organization in terms of existing Lean and continuous improvement implementation and governance
- 2 Identification of the burning platform issues for the facility as perceived by you
- 3 Suggested high level continuous improvement objectives that will align with existing strategic objectives for the facility
- 4 A suggested governance structure most appropriate for the facility and what you view as the Lean/continuous improvement skill sets that will be required across the facility
- 5 A description of the likely barriers to change and a proposed high level strategy for developing a Lean culture and managing change resistance
- 6 A phased implementation plan, based on 1–5 above, that outlines how the Lean/continuous improvement transformation should be rolled out over a 12 month period beginning on a notional start date of January 1st, next year. The plan should include notional timelines and resource requirements for each

element/phase. You should also place your proposed Black Belt project within this plan, including a brief description of the project.

7

A description of how the rollout will proceed after the initial 12 month period.

For deliverable 6 above, you should include a description of each element or phase and the rationale that justifies its inclusion based on the current conditions of the facility / organization and the objectives that you have outlined for section C. You should also include an approach/description for an appropriate rollout strategy for communication across the facility/organization, etc.

The assignment should be principally submitted in Word or PDF format, with an additional Excel or Project file format submission for the Lean/continuous improvement plan as outlined in F above. This additional file should also be clearly referenced in the relevant sections.

Assignment Assessment

The assignment will be assessed by assigning a score out of ten for each of the following assessment criteria:

1. Professional appearance of assignment package
2. Reflection, description, and critique of the specified organization's current state of Lean and continuous improvement implementation and governance structure
3. Identification and support of burning platform issues
4. Development of high-level continuous improvement objectives
5. Development of an appropriate governance structure for continuous quality improvement
6. Development of a plan for securing the Lean/continuous improvement skill sets that will be required across the facility
7. A description of the likely barriers to change and a proposed high-level strategy for developing a Lean culture and managing change resistance

8. A phased implementation plan that outlines how the Lean/continuous improvement transformation should be rolled out over a 12 month period
9. A description of how the roll-out will proceed after the initial 12 month period
10. Depth of Analysis

The scores for each component will be totaled to produce an overall score of 100.



References and further optional reading

If you would like to do further optional reading about this course's topic, you may wish to consider the following resources that the creators of this course drew on in preparing this course:

- **Rother M and Shook J 2003**, *Learning to See*, The Lean Enterprise Institute, Brookline, Massachusetts.

Note on Links:

If you find that a hyperlink used in this course is out of date, please notify us at cdneducationlead@leadingedgegroup.com. You may also be able to find an out of date web resource by searching for the expired URL at <http://archive.org/web/web.php>

1. Lean Strategic Planning

Module Overview

This module outlines how best to achieve a sustainable Lean transformation. The module explains how to develop strategic goals and objectives for continuous improvement projects and identifies the most appropriate structure and relevant skill sets required in an organization to support and sustain Lean implementation. Finally, it provides guidelines for developing and executing a Lean roll-out plan.

Modules Objectives

On successful completion of this module, you will be able to:

- Develop suitable objectives for a Lean transformation using the Hoshin Kanri technique
- Recognize the components, key roles and skill sets required for effective Lean governance and implementation
- Develop a high-level Lean implementation plan



Required Reading

Bicheno J and Holweg M 2016, The Lean Toolbox: A handbook for Lean Transformation, PISCIE Books. **Pages 4–11.**

Module Topics

The topics that will be covered in this module are:

1. Lean Organizational Structure
2. Developing High Performing Teams
3. Developing a Lean Strategy and Execution Plan
4. Developing Strategy and Execution using Hoshin
5. Sample Lean Transformation Roll-out

1. Lean Organizational Structure

Lean organizations have a particular way of behaving that is instilled throughout the company by managers at all levels. The culture of Lean organizations can be characterized as the ruthless and relentless pursuit of excellence and operational efficiency by the whole team. This pursuit of excellence is not a nebulous concept, but one that is realised by well-tested elements. Of particular importance are:

- Leadership at all levels across the organization
- A Lean “mindset” based on the pursuit of operational excellence
- Teamwork and the development of high-performing teams. In mature Lean teams individuals take responsibility both for their own performance and that of the team. Practical examples include teams setting up white boards to track and display a few key daily metrics; teams reviewing metrics together every day and discussing how to get better; team meeting each morning to review and plan the day; team members managing each other's quality performance; etc.

1.1 Communicating Lean Thinking throughout the Organization

Effective communication has to begin at corporate and senior management level. Securing top level vision and support for Lean is a required initial step to developing a roadmap to Lean implementation. Management must appreciate and understand the strategic opportunities and long-term benefits of a streamlined Lean organization.

Training should be arranged at an early stage to enhance top management understanding of Lean. Such training will ensure that managers can more clearly understand and articulate

where they are now – the current state – the substantial improvement opportunities that exist, and the process for converting these opportunities to real gains in the future state.

Coaching and training should aim to develop the appropriate levels of knowledge among the senior management team to enable them to make an effective contribution to developing a relevant Lean strategy that is aligned with existing and future goals.

1.2 Management Committees

Without a structured system to make things happen, a conversion to Lean is doomed. Two layers of councils or management committees are recommended to drive the conversion to Lean throughout the organization and to set and evaluate relevant performance metrics – a Lean improvement management council and a senior management council.

A Lean Improvement
Management Council

- Consists of the dedicated Lean champion
- Is responsible for identifying and implementing improvement

- Assures that the resources are made

A Senior Management Council

available

- Provides the organization's strategic goals

2

2. Developing High Performing Teams

Capability and performance development should be planned from the perspective of the skill groups that the organization needs to create in order for Lean to succeed. The following model outlines, at a high level, the stages in the development path for five key groups: Lean leaders, Lean experts, Lean managers, Lean team leaders and staff.

Lean Leaders

Lean leaders lead projects and have significant delivery experience in the Lean arena. They:

- Will typically be expert project managers and good communicators who are able to lead large groups through training events
- Are qualified and mature enough to coach senior operational managers in Lean techniques,
- Will be audit capable
- May choose to “specialize” in a particular area – e.g. leading projects, design and implementation, continuous improvement, etc.
- May work within central functions such as change teams and businesses (but it is recommended that each Module or area has a Lean leader)

Lean Experts

Lean experts are typically well versed in Lean concepts, tools and techniques. They are part of a core team and have experience and understanding of all aspects of the Lean system. Lean experts can demonstrate their ability to deliver small projects with support and supervision from Lean leaders. They are capable of leading process design work streams, delivering front line training courses, designing scorecards and measuring progress, liaising with policy groups on design proposals and coaching middle managers in Lean techniques.

Lean Managers

Lean managers are the operational managers who oversee the Lean processes. They are expert in the application of Lean skills and techniques in an operational context. They practice active management on a daily basis and work to encourage continuous improvement from their teams. They guide shared learning across teams and work with colleagues in other offices and regions and obtain best practice for the process.

Lean Team Leaders

These are operational team leaders. The typical ratio of Lean team leaders to staff members is 1:20. The Lean team leader will use active management techniques and will coach staff to identify additional process improvement opportunities. They will be skilled performance managers and coaches and will be comfortable leading team meetings and running problem solving teams. They will be effectively networked and able to solve problems across directorates.

Staff

Relevant staff members should be trained in Lean concepts appropriate to their day-to-day work, but under the banner of the organization's "Ways of Working". This training will address topics including customer focus, managing backlogs, prioritizing work effectively and contributing to team-based problem solving. It is important that the planning of any Lean training is closely aligned with existing learning and development activities and any organization training activities. Many of the skills that are taught in a Lean system are part of the normal business agenda and should be aligned with, rather than replace, normal learning and development activity.

3

3. Developing a Lean Strategy and Execution Plan

The success of any Lean implementation in an organization is dependent on effective strategic planning that helps to reduce and remove wastes and non-value activities from an organization's core processes, while maintaining momentum towards perfection.

Every organization needs an effective strategic management framework in order to achieve more success. A strategic vision based on long-term goals is vital in defining a suitable direction for an organization. Breaking these goals down into shorter-term objectives and plans that fully involve employees helps attain this vision.

A Lean transformation should commence with an assessment of the current situation in order to develop a foundation for a strategic Lean execution. This should be followed by a series of planning workshops/events aimed at developing:

1

The overall strategic and execution plan for Lean implementation

2

The organizational structure required for a Lean transformation

A Value Stream Mapping (VSM) exercise should then be conducted at a pre-identified site or at an organizational level to identify improvement opportunities. Plans to realize these opportunities will be used to develop a specific queue of projects and a project charter for that site or organization in line with the overall Lean strategic plan.

Key individuals are then selected to fill the Lean leadership roles outlined earlier, and appropriate training and education is provided. This training should educate participants on the fundamentals of Lean to create sponsors for the transformation. Participants learn various Lean implementation approaches along with applications of the methodology.

Actual Lean execution can then commence with formal education provided to a cross-functional group. Education here will be focused on empowering employees to realize and lead Lean improvement initiatives. This is achieved through the completion of projects required as part of the assessment model for each program.

After a number of months, the process is rolled out to a second site, and so on through other sites or Modules where relevant. Based on this approach, all sites or Modules share 'Best Management Practice', as those people trained in site 1 can become the "co-trainers" for the second site, and, when the talent pool has increased, they become the sole drivers for the third location or target area.

Some of the main events or activities carried out as part of a Lean transformation include assessing the current situation, strategic planning, developing an execution plan, developing a project queue and tracking the Lean implementation.

Video Tutorial: Roadmap to Lean Deployment

A sustainable Lean transformation requires a great deal of planning, analysis, preparation, and leadership. Lean leaders require key knowledge, skills, and abilities to help this happen.

They need to develop strategic goals and objectives for Lean and continuous improvement, and establish the most appropriate structure and skill set to fully support and sustain Lean deployment in the organization. The following video describes the Lean deployment roadmap.

Video Notes:

3.1 Assessing the Current Situation

Lean transformation should commence with an assessment of the organization's current state so that a suitable approach for an overall implementation can be developed. Such assessment activities should focus on:

- 1 conducting individual interviews with management team members
- 2 developing and presenting key findings to management



3

gaining agreement with management on priority issues and sequencing

4

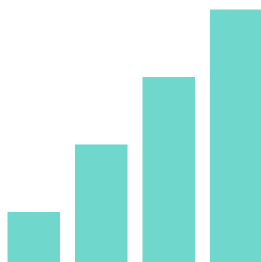
appointing the senior management council (SMC)

3.2 Strategic Planning

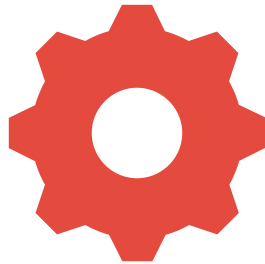
Strategic planning for the organization should be conducted over the course of a number of workshops with the management team. These workshops should be grounded in the organization's vision, mission and values and focus on:



Reviewing current external environmental conditions - trends, customer/market, competition, opportunities, threats etc.



Carrying out an internal analysis - strengths, areas for improvement, misalignments, etc.



Carrying out a Lean Strategy
synthesis



Developing strategic Lean
objectives with a 1-3 year
horizon





Developing key milestones for
achieving these objectives



Developing a plan for
communicating the new Lean
"Strategy and Vision"



Appointing the Lean
Implementation Management
Council

3.3 Developing an Execution Plan

The two councils identified in section 1.2 should develop an execution plan at a series of workshops aimed at:

1

Identifying, prioritizing and sequencing key programs/actions

2

Defining and gaining commitment on the 3 Ws (who's going to do what by when) for each priority to be completed

3

Defining critical processes, initial Lean projects, and resources for the continuous process improvement aspect of the execution plan

3.4 Developing a Project Queue

A queue of projects that align with the overall organization's strategic plan and the Lean execution plan should be developed to guide Lean implementation. VSM and Voice of Customer (VOC) analysis should be undertaken at organization and facility/site levels to help identify the most relevant project and project teams.



VSM is aimed at mapping the core value streams at a top level in each facility/site to identify improvement opportunities. Plans to realize these opportunities will be used to develop the project queue and charter development events.



VOC analysis would be focused on reviewing the main requirements of internal and external customers and outline what patients want from the organization.

The aim of this analysis is to help focus the organization and make sure processes are improved from a customer (external and internal customers) perspective. Some organizations' strategic plans focus on cost, time and capacity, while forgetting about the customer in the process.

Typical activities at this phase may include research on the organization's quality systems and patient responses to surveys as well as using basic surveys, Kano analysis, focus groups, etc. The deliverable of this phase is a plan that provides guidance into the cultural shift needs, project selection process, scorecards, dashboards, performance and quality indicators, etc.

3.5 Tracking the Lean Implementation

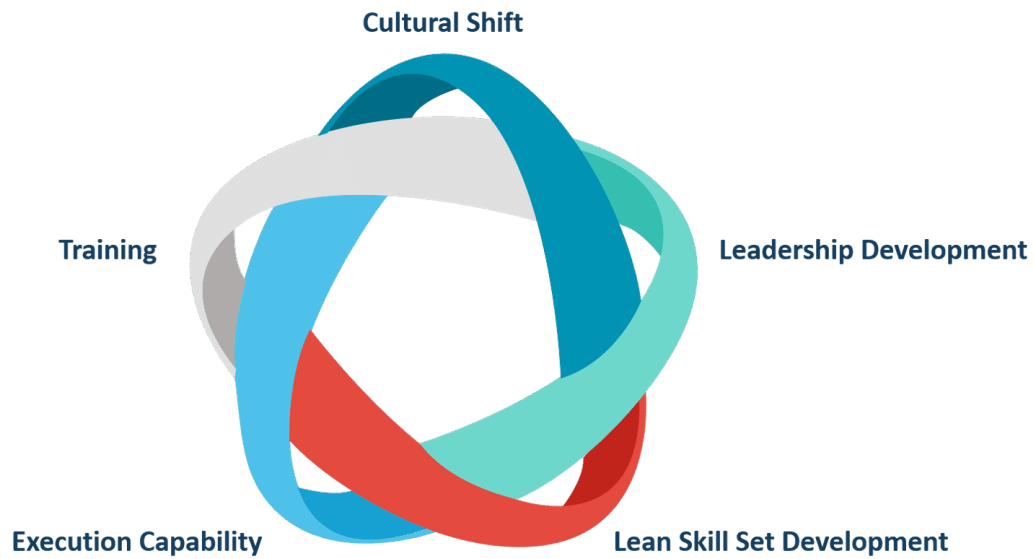
To ensure that the Lean implementation remains on target, the implementation strategy and execution plan should incorporate the appropriate tracking mechanisms, namely:



Figure 1.1: Tracking mechanisms

Maturity Path Reviews

This is an audit of the overall process to understand where the organization is in terms of the following facets of the Lean implementation:



Tollgate Reporting

Tollgate reporting events are attended by champions/leaders and the Lean Implementation Management Council. Initially, this activity would consist of a tollgate report-out for projects as a mechanism to ensure each project is successful. This activity can also include a component where champions/leaders review and communicate implementation status to the organization, identify new opportunities and exchange best practices.

Performance Metrics

Metrics at different levels of detail should be developed based on the organization's needs in the form of scorecards, dashboards and reports. Developing these tools and templates will enable projects to be continually tracked to ensure sufficient progress and alignment with overall objectives.

4. Developing Strategy and Execution using Hoshin

Hoshin planning is derived from the Japanese words “Hoshin Kanri” that mean “direction setting”. It is a process that is used to plan for and achieve a strategic vision for the organization by identifying and implementing organizational breakthrough objectives while continuing to implement the fundamentals of the business.

Hoshin Planning Process Components

The Hoshin planning process involves the following steps

Identifying the overall vision of the organization

Aligning the entire organization with the vision

Identifying breakthrough objectives to achieve the vision

Continuously improving fundamental business processes

Reviewing and modifying these plans

Developing plans to support and implement these objectives

Facilitating strategic thinking and learning

4.2 Cascading through the Organization

Hoshin planning promotes the involvement of all employees in the process. An underpinning belief of Hoshin is that goals can only be achieved if all members of the organization fully understand its vision and objectives and are involved in the hierarchy of plans developed to realize these.

Hoshin planning is based on a cascading process where the corporate vision is supported by corporate plans or strategies. These are supported by lower level plans and strategies that flow down through the different levels of the organization. The key actions at one level become the desired action of another. Strategic themes, objectives, metrics and resources are aligned and integrated at all levels to the overall vision as shown in the diagram below.

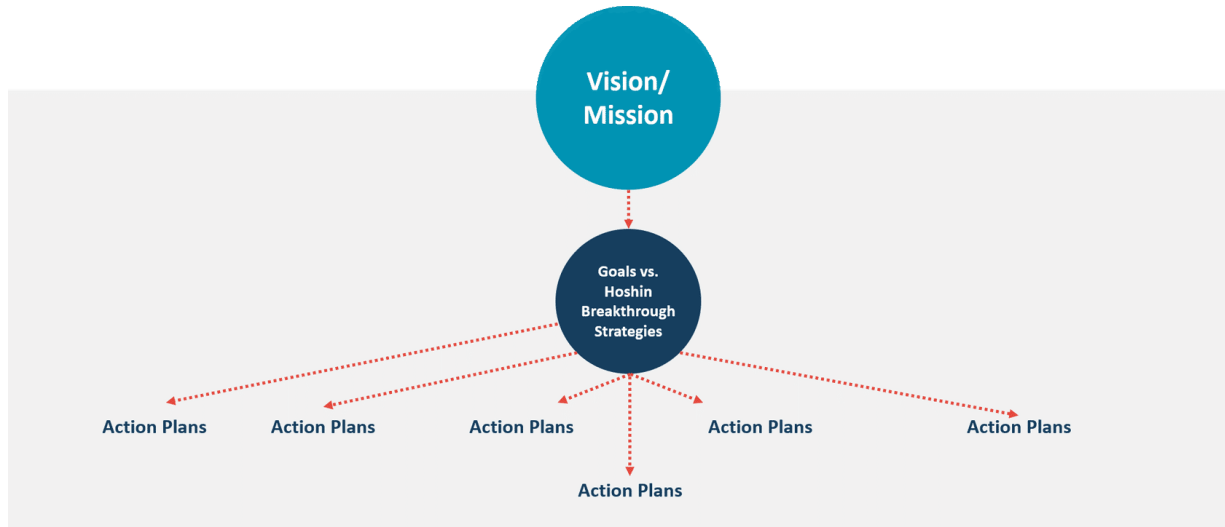


Figure 1.2: Hoshin as a cascading process
Source: Impacture

For Hoshin planning to be a success, it is vital that a cross-functional approach is adopted when developing the strategies required to realize the corporate vision. Interaction and communication in this regard should take place between the relevant departments, areas and processes in the organization. Allowing everyone to make a contribution towards the corporate vision helps foster a sense of responsibility among all employees, and therefore ensures that each employee puts 100% effort into accomplishing the relevant strategy. Cross functionality also ensures that potential issues or problems can be identified and avoided at an early stage in developing each strategy. It also makes problem solving and modification of strategies much easier when strategies are reviewed, thus facilitating a continuous improvement culture across the organization.

4.3 Hoshin Implementation Plans

Hoshin implementation plans can be used to develop and outline the required approach for implementing each breakthrough strategy. These plans should be developed by all involved in their implementation and incorporate the following information:

☐

The tasks involved implementing the strategy

☐

The people involved in carrying out the strategy and their associated responsibilities

☐

The time frames involved

☐

Performance metrics

☐

The approach for reviewing the plans

4.4 Reviewing Progress

A standard and regular approach is used for reviewing progress and modifying strategy accordingly, as shown in the diagram below.

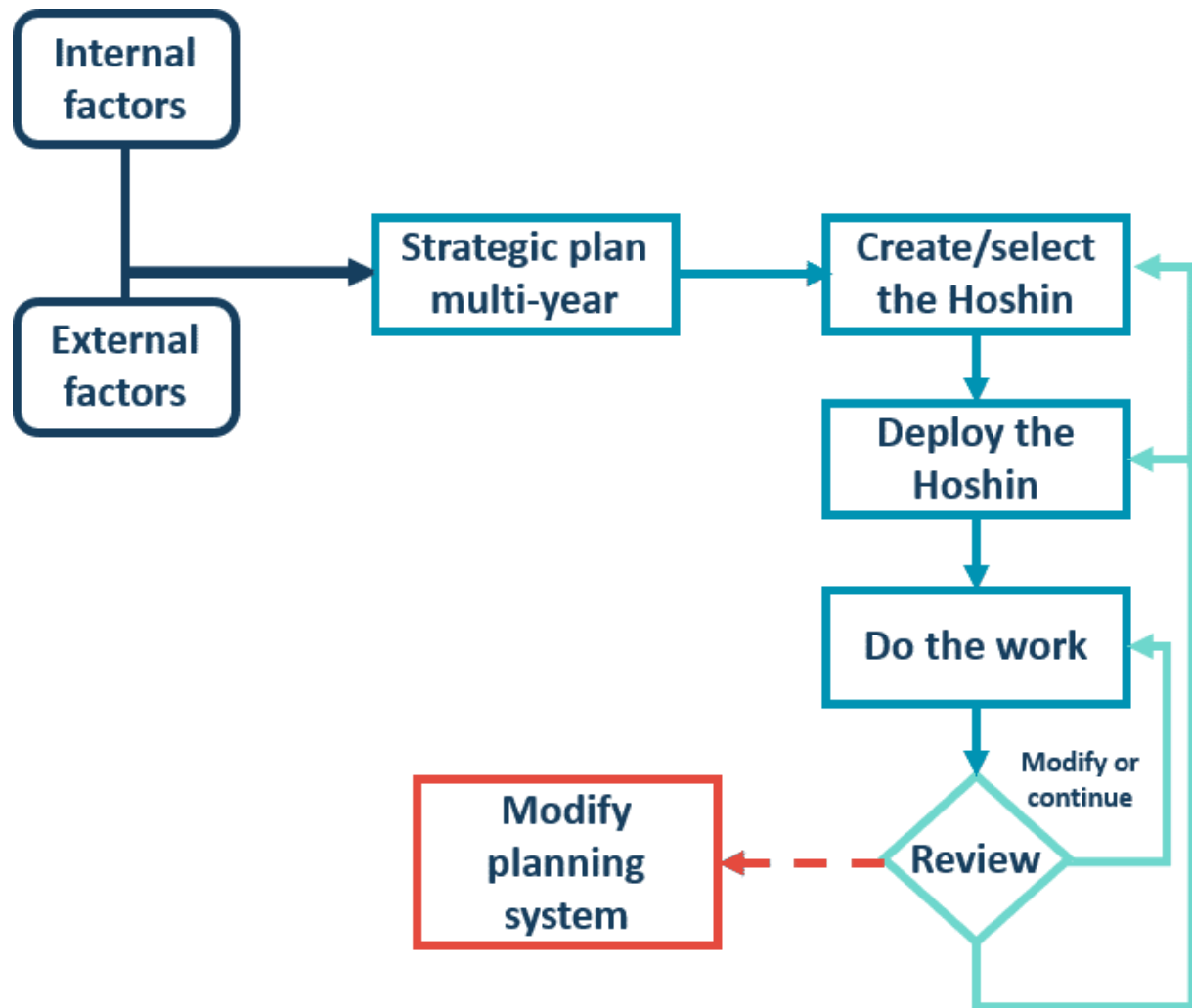
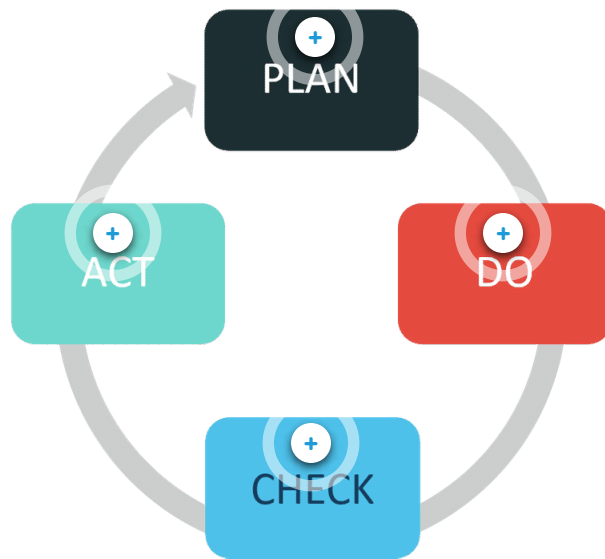
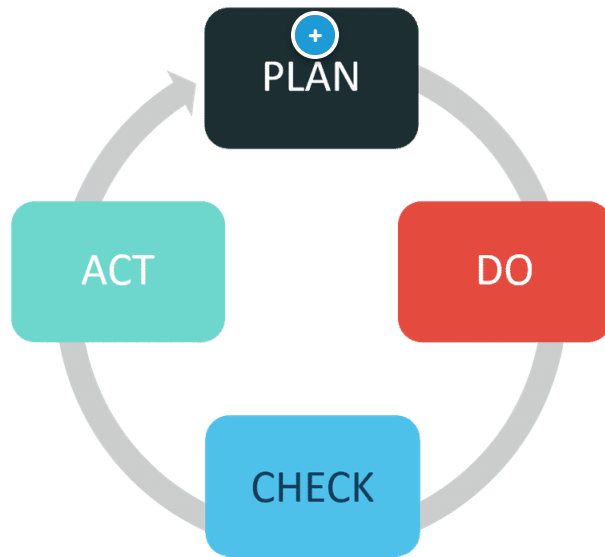


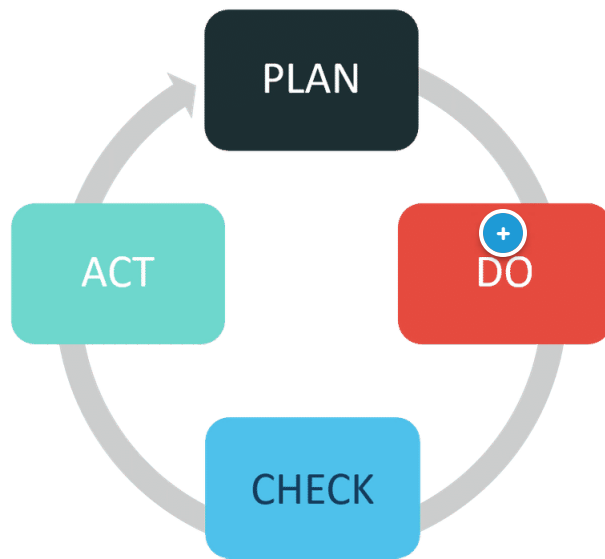
Figure 1.3: Reviewing progress and modifying strategy using a Hoshin process
Source: Mann and Domb 2009.

Required improvements need to cascade back through the process on an ongoing basis to enable the corporate vision to be modified, as appropriate. Hoshin planning is best applied using Plan-Do-Check-Act continuous improvement cycle based on the following phases:

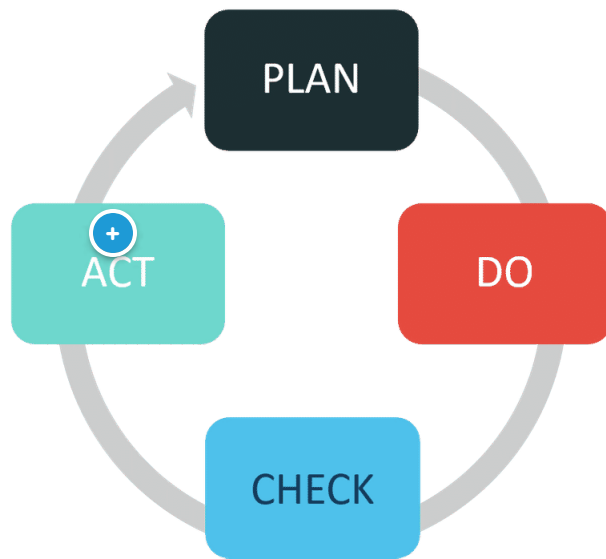




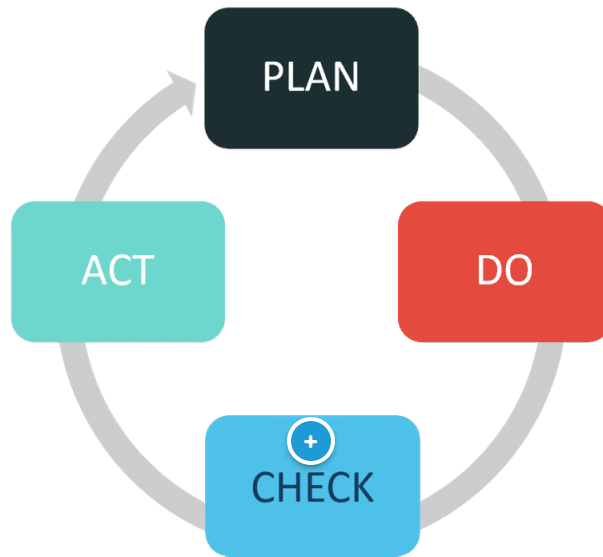
Plan the strategy for achieving each breakthrough objective



Do or implement the plan



Act by modifying or abandoning the plan



Check, analyze, and measure the results of the plan

It is vital that plans and strategies are reviewed against actual performance on a regular basis – at least once a year. Hoshin review tables are useful in this regard. Each table should outline:

1. The objective
2. The associated strategy or plan for achieving that objective
3. The owner of that strategy
4. The time frame involved in implementing the strategy
5. Performance metrics
6. The target results associated with the strategy
7. The actual progress or results at the time the review takes place

5. Sample Lean Transformation Roll-out

Video Tutorial: A Sample Lean Transformation Roll-out

This video follows a sample transformation 12-month rollout for an organization with three facilities/sites (Facility 1, Facility 2, and Facility 3). Lean has yet to be implemented at any level in the organization.

Video Notes:

6. References and Further Optional Reading

If you would like to do further optional reading about the topic, you may wish to consider the following resources that the creators of this course drew on in preparing this module:

- **Impacture**, Hoshin Kanri Visual Strategic Planning. (<http://www.hoshinkanripro.com/>)
- **Mann D and Domb E 2009**, TRIZ / systematic innovation enhances Hoshin Kanri, The TRIZ Journal. (<https://triz-journal.com/triz-systematic-innovation-enhances-hoshin-kanri/>)

2. Managing and Assessing the Lean Transformation

Module Overview

This module outlines a strategy for developing and managing a Lean transformation. The Module describes a model for developing a Lean organization and an approach for assessing organizational maturity as an organization develops and embeds a Lean culture.

Modules Objectives

On successful completion of this module, you will be able to:

- Identify the elements of an effective strategy for embedding and managing a Lean transformation
- Recognize the role of leadership in managing the Lean transformation
- Distinguish between the different elements of the “Lean Business Model”
- Apply an approach for assessing Lean / continuous improvement maturity within an organization

Module Topics

The topics that will be covered in this module are:

1. Embedding Lean

2. A Strategy for Managing the Lean Transformation
3. The Role of Leadership in Managing the Transformation
4. Introducing the Lean Business Model
5. Maturity Assessment

1. Embedding Lean

The journey of promoting and managing the 'Lean Organization' requires an infrastructure and management strategy that:

- Introduces the principles of Lean and continuous improvement
- Demonstrates a clear need to continuously improve
- Establishes senior management expectations for improvement
- Provides tools, talent and other necessary resources
- Ensures follow-up
- Ensures that improvement opportunities are realized

This infrastructure links leadership with a strategic focus to a tactical deployment. To be effective, this linkage should occur in an environment where there is continuous feedback of expectations and results. Lean transformations are founded on people-enabled processes and important processes need to be owned and managed across functions to enable migration to a 'Lean Organization'.

2. A Strategy for Managing the Lean Transformation

Research evidence indicates that the following steps can help develop the conditions for managing and overcoming the resistance to change that may emanate from a Lean implementation:

- 1 Establish the specific drivers for change
- 2 Develop “Change Leaders”/”Lean Champions”
- 3 Create a Lean vision and associated strategy for achieving that vision
- 4 Communicate the change effectively
- 5 Train people to embrace and implement changes effectively
- 6 Develop and sustain a Lean culture and climate

1. Establish the specific drivers for change

The first stage in any successful Lean transition or implementation should involve establishing the need and urgency for change. The negative results that will occur as a result of maintaining the status quo and the potential opportunities that can be realized should be identified and outlined. This sets a context for the changes that will take place and helps employees understand the reasons behind the need for change.

2. Develop “Change Leaders”/“Lean Champions”

The change effort associated with the Lean implementation should be led by a group of people with enough power to drive the initiative. These people should be at management level in all of the areas/departments that will be affected by the Lean implementation. They should have an extensive knowledge of the entire organization and, in particular, the areas and people that will be impacted by Lean.

3. Create a Lean vision and associated strategy for achieving that vision

The organization needs to develop a vision that will help drive efforts associated with the Lean implementation. Once the vision has been created, strategies to achieve that vision should be developed. The vision and associated strategy should be clear, flexible, and easy to communicate. They should:

- Outline how things will look in the future
- Address and meet employee, customer, and stakeholder interests and expectations
- Incorporate goals and aims that can be realistically achieved

4. Communicate the change effectively

For any Lean transition or implementation to succeed, it is vital that the need and urgency for change and the vision for change is communicated as early as possible to all employees in the organization. Management should clearly outline the differences between the current state and what the future state of the organization will be as a result of the Lean implementation. All employees need to be made aware of the principles of Lean and the reasons for its specific implementation.

Communication should outline the negative aspects of the current system and processes for the employee's role and how these aspects can be reduced and improved by a Lean implementation. Communication should take many forms – regular company addresses;

conference calls; one-to-one employee meetings with management; e-mail updates; company newsletters; etc.

Communication should be as visual as possible with graphs, charts, and visual aids distributed among employees to accentuate the specific benefits to them and the organization as a whole.

The specific benefits associated with Lean should be outlined clearly to all employees. Employees are likely to be more motivated to embrace the change if they can see how it will benefit them in comparison with the current status quo. If they develop a perception that Lean will make their work environment a better place for them, then they are more likely to be motivated to embrace the changes involved in implementing it.

Employees should be made aware of Lean outcomes that will make their roles more enticing:

- Employee empowerment
- Extra job variety
- Personal involvement in continuous improvement and problem solving

Open and effective communication helps foster a sense of security and acceptance for change among employees. Employees should be asked for feedback, suggestions, ideas, and thoughts with regard to overall process improvement. In doing this, management gains a different and constructive viewpoint on what it is thinking of implementing. Employees gain a sense of value, participation, and ownership for the Lean initiative.

Checklists should also be developed to help provide clarity and guidance as to the new processes that will be developed and implemented. Employees should be provided with ample opportunities for feedback in relation to any changes to tools, practices, and techniques. This ensures that continuous improvement is maintained and employee sense of ownership and control is sustained.

A strategic communication plan should be developed that outlines:

- The specific messages that the organization wants to transmit
- The frequency at which the messages are transmitted
- The audience that the messages will be transmitted to
- The communication mechanisms used to transmit each message

One of the main reasons that people resist change in the workplace is the fact that they feel that they do not possess the necessary skills to successfully perform new roles, tasks, and responsibilities. For example, the successful implementation of Lean in an organization is very much dependent on cross-functional implementation teams. Therefore, employee team-working, interpersonal, and problem solving skills are vital.

There may be a high percentage of employees working in the organization who are most familiar with working autonomously and have no real experience in decision-making or problem solving roles. As a consequence, such employees may be insecure about changes resulting from a Lean implementation even though they can see the obvious associated benefits.

Before focusing on any Lean tools and techniques, training should initially focus on developing the interpersonal and team working skills necessary to provide employees with the confidence and motivation to take an active part in continuous improvement and problem solving tasks and activities. It is vital that employees gain a full understanding and appreciation of the role that they can play and the contribution that they can make on Lean implementation teams.

Ensuring that employees receive the appropriate training before the Lean implementation begins can help reduce these insecurities and ensure that the implementation will have a lasting success. To make the change process as smooth and flexible as possible, it is important to enable employees to efficiently complete projects or on-going tasks while at the same time attend and assimilate training and coaching.

6. Develop and sustain a Lean culture and climate through empowerment

Communication, training, and coaching should be used to develop and foster a suitable Lean culture across the organization. Using these techniques to change daily procedures, practices, roles, and responsibilities so that they are focused on empowering employees will help develop a culture that is conducive to Lean implementation. This culture should foster in most employees a motivation and readiness to embrace Lean concepts, tools, and techniques in their work.

Specific Lean tools training should begin by removing senior people with solid leadership skills from their regular duties to focus on implementing the Lean initiative. These senior team members should be properly trained in Lean techniques and given the appropriate support and resources. Suitable employees should then be selected and trained for specific Lean implementation projects based on a Lean road map that has been developed.

To further guarantee employee participation and motivation for this specific training, the organization should aim to develop appropriate performance measurement targets and metrics

to define what a successful Lean implementation looks like, what should be achieved, and each employee's role in ensuring its success.

3. The Role of Leadership in Managing the Transformation

Effective leadership and management are required before, during, and after change implementation. During any period of change, employees will expect suitable and effective planning and decision-making and well-timed communication. Employees will also expect leadership within the organization to be fully supportive and committed to employee welfare when change decisions are being made and implemented.

Trust between management and subordinates is necessary in order for change to be implemented effectively and to be accepted by all affected employees. If this trust does not exist or the organization has ineffective leadership, then employees will have negative expectations in relation to any change that may transpire.

In preparing for Lean implementation, management must see the world through the eyes of those being asked to embrace the Lean initiative, and be able to answer the simple question on each stakeholder's mind – “what's in it for me?” Management must work with employees to help them envisage and understand what the new initiative and resultant changes will bring about.

Management and leaders within the organization should aim to:

- ☐ Develop a shared vision of the direction that the organization is taking over the long term, and make it clear how the Lean initiative supports that direction
- ☐ Allow sufficient time for Lean implementation – six months to several years. This should not be confused with the possible short-term focus of specific Kaizen events
- ☐ Anticipate resistance to change. Develop a plan for managing that resistance
- ☐ Make sure that the pain of implementing Lean is seen to be less severe than that being endured through the current processes and system
- ☐ Ensure there are strong signs of top management support such as showing up for meetings, allocation of proper funding, and ensuring actions are consistent with words. This support should translate into commitments by middle and frontline management, such as change management training and involvement in project planning and communication
- ☐ Offer rewards for the early adopters of Lean, and consequences for those that continue to resist. This can be implemented by aligning the success of the new process with employee training plans and annual performance reviews
- ☐ Develop a visible process management system that links financial performance metrics to process performance metrics. This makes performance visible and demonstrates how process improvements impact the bottom line / corporate strategy

4. Introducing the Lean Business Model

Developed by Professor Peter Hines at the Lean Enterprise Research Centre at Cardiff University, the 'Lean Business Model' provides a blueprint for Lean implementation and a diagnostic framework that enables organizations to establish where they are on their 'Lean journey.' Organizations can also use the Lean Business Model to identify areas that should be addressed earlier or later in the development of the Lean organization. The model is based on 5 elements with value stream management at the centre.



Figure 2.1: Five elements of the Lean Business Model
Source: SA Partners

4.1 Value Stream Management

Value stream management (VSM) encompasses understanding and managing to a quantifiable result the key elements of customer value and waste for processes within the organization. VSM is closely linked to two other elements of the model as the performance capability of each key business processes is established during the strategy deployment element and the accountability for delivering results is developed in the people-enabled processes element,

4.2 Strategy Deployment

The purpose of strategy deployment is to align and engage everyone in the organization with the external customers and goals of the organization. Strategy deployment is a process that aligns the vision and strategy of the organization with targeted key performance indicators (KPIs) and selected improvement projects. These KPIs and improvement projects are then deployed in the organization, with identified people at all levels accountable for the achievement of targets and delivery of the projects.

In a Lean transformation, the strategy deployment process plays four key roles:

- It engages the senior management and executive team and provides a clear foundation for change
- It enables the organization to prioritize where it will target its resources to best deliver results
- It aligns, engages and empowers employees to contribute towards achieving strategic priorities
- It aligns Lean initiatives with results

4.3 People-enabled Processes

In developing a Lean organization, it is important to question existing functional structures and start to provide employees with roles that are more process oriented. Establishing the future strategy of the organization and developing a clear understanding of its current performance will help to quickly identify those processes that require focus and how the organization should structure itself to deliver the required results. In addition to leadership development, basic people-enablers include developing workforce skills and effective behaviour engagement.

4.4 Tools and Techniques

The key projects identified as part of the VSM and/or strategy deployment elements need to be implemented in a rigorous and repeatable manner. This is where the appropriate Lean tools and techniques play a part. The tools and techniques used need to deliver results in a manner that is both repeatable and sustainable.

These tools and techniques should be used to apply Lean in a way that staff members can easily understand and which can be readily replicated. At any point in time, there should be a set of approaches for each tools and technique adapted for the organization that will need to be rigorously and continually practiced. This not only enables effective implementation of the initial projects but also provides the practical tools for continuous improvement in the priority or important processes. It should also lead to continuous improvement becoming a habit or 'way of life' for the organization.

4.5 The Extended Enterprise

The extended enterprise element applies approaches explained in the other four elements of the model, up and down the value stream to ensure that the entire value stream is as Lean as it can be.

Working up and down the value stream is essential to ensure that customer value is understood and that all elements are aligned to deliver customer value. At the same time, working on processes that inter-connect organizational and functional boundaries enables elimination of those wastes that may be caused by another organization that has an input to

specific value streams – for example suppliers – in your own organization as well as internal wastes. In recognizing the extended enterprise, relationships are developed and performance is improved.

Video Presentation: Ensuring Implementation Success

Many Lean improvement efforts fail because of issues during implementation. Following the Lean roadmap helps sustain change and mitigate common mistakes. Selecting, measuring, and studying the problem, using tools, and developing and implementing a solution is a lot of work, but it is only a fraction of the work needed. This video describes the common pitfalls and principles for successfully deploying Lean.

Video Notes:

5. Maturity Assessment

The Lean Business Model provides an assessment tool that facilitates measurement of the current maturity of an organization against the model itself. The assessment should be used to develop a clear roadmap for improvement in all areas of the organization. It should be based on appropriate planning, data collection and analysis that can lead to effective recommendations for improvements along the roadmap.

The measurement system should be based on five key milestones of continuous improvement maturity from being spontaneous or ad hoc through to a point where continuous improvement is a way of life or the norm for the organization.

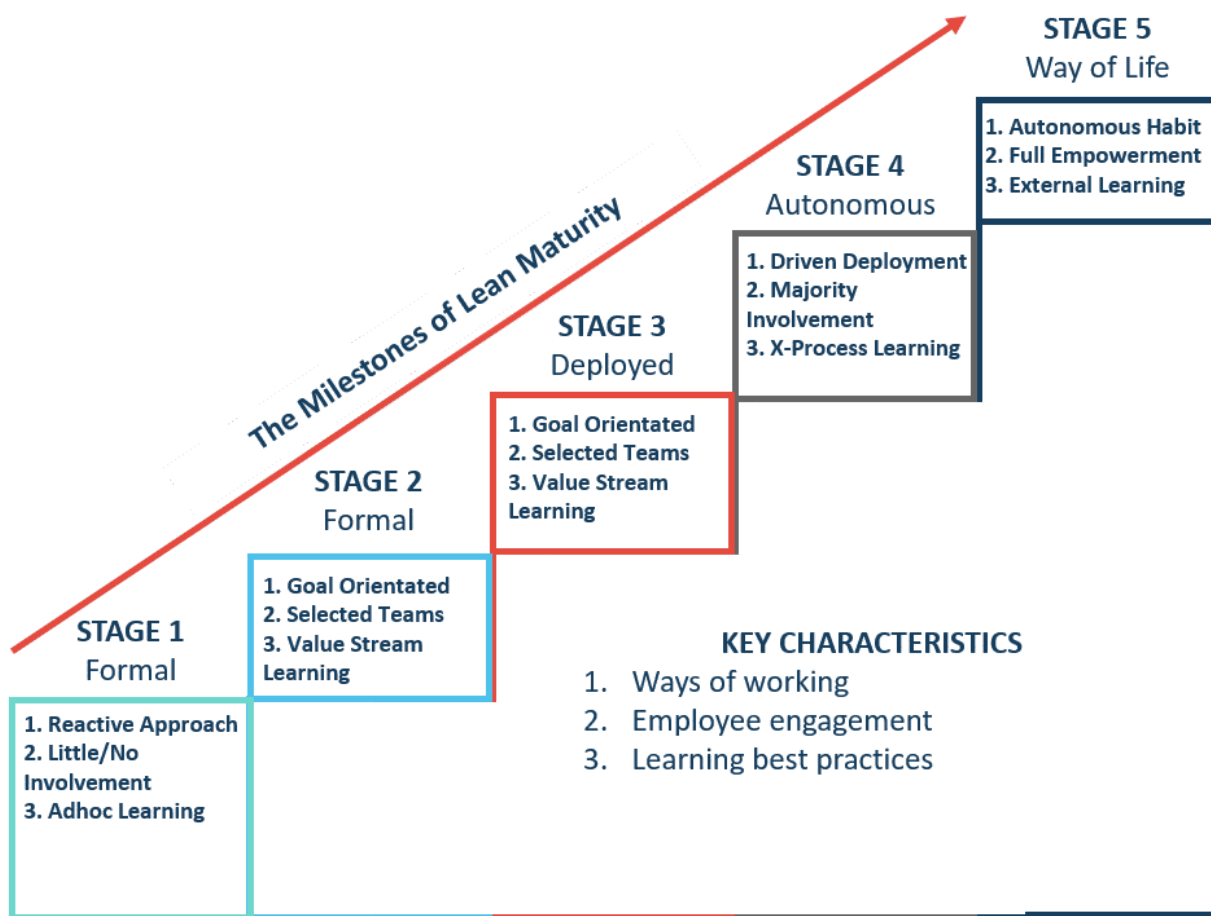


Figure 2.2: Milestones of Lean maturity
Source: SA Partners, The Lean Business Model

It is recommended that each of the core elements of the Lean Business Model be assessed both quantitatively (for systems and procedures) qualitatively (for values and behaviours). In other words, it is important to measure not only what the organization is doing but also (and more importantly) the way work is actually carried out. This helps to build a learning organization that not only has the capability to maintain the gains of the improvement, but also an organization that is positioned to continuously improve the continuous improvement process and culture until it becomes a daily habit for everyone.

Through conducting interviews, collecting relevant data and actual observation of key processes, an appropriate index score can be compiled. The score should provide suitable indicators of the current state. In addition, a future state with target index scores should be developed to define where the organization needs to be. By comparing the two, a relevant gap analysis of the organization can be generated.

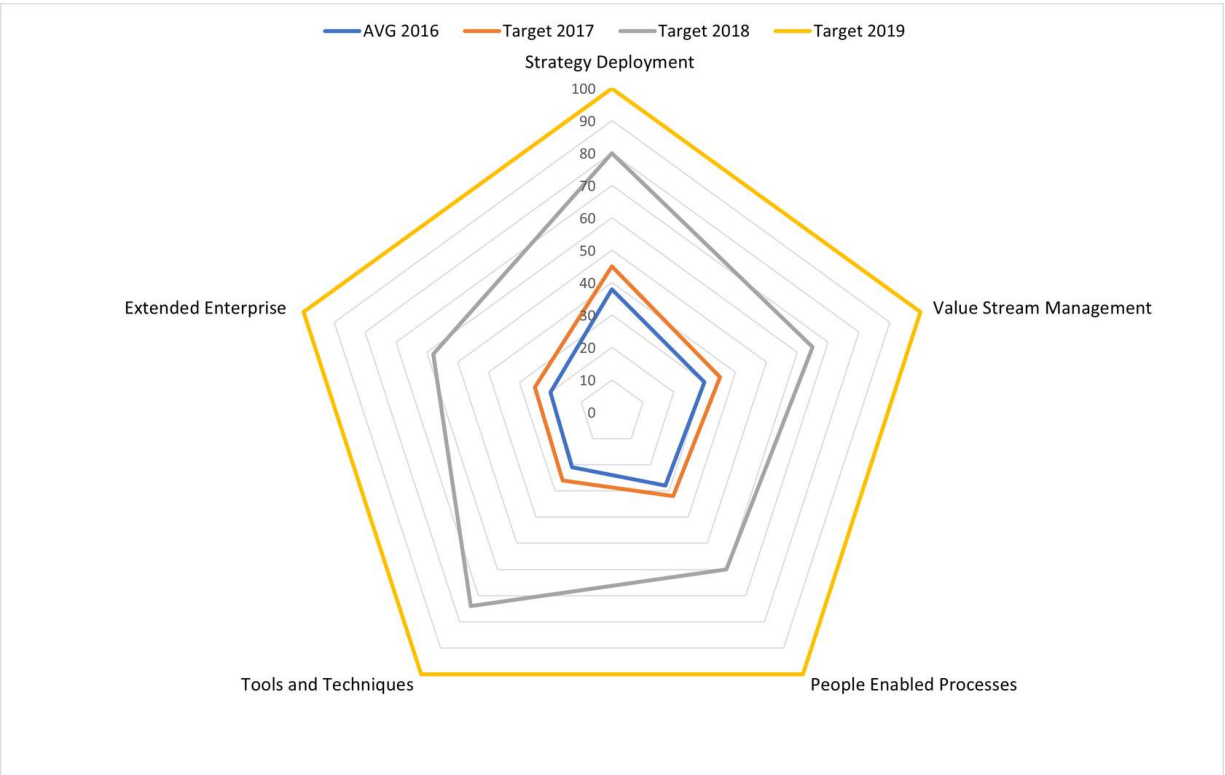


Figure 2.3: Sample maturity assessment with index scores

This diagnosis, in line with the future state vision for Lean maturity and the strategy of the organization, provides the appropriate context to create a roadmap for how to progress from the current state to the future state. At a high level, the roadmap should identify those elements that you should place early emphasis on and those that will require later emphasis. This technique requires a discipline of Plan-Do-Check-Act. Each year the assessment should provide an objective and subjective viewpoint on the current maturity of Lean / continuous improvement projects across the organization.

Video Presentation: A Framework for Maturity and Sustainability

Lean organizations have a particular way of behaving that is instilled throughout the company by managers at all levels. The culture of Lean organizations can be characterized as the ruthless and relentless pursuit of excellence and operational efficiency by the whole team. The pursuit of excellence is not a nebulous concept, but one that is realized by well-tested elements.

The following video discussed a framework for assessing and advancing the continuous improvement maturity level of an organization.

Video Notes:

References and Further Optional Reading

If you would like to do further optional reading about the topic, you may wish to consider the following resources that the creators of this course drew on in preparing this module:

- **Nightingale D 2002**, *Transformational leadership*.
(http://mit.out.ac.tz/NR/rdonlyres/Aeronautics-and-Astronautics/16-852/Integrating-The-Lean-EnterpriseFall2002/A75A82FD-4CF8-4064-A656-AC1A2989D3FB/0/11_13class.pdf)
- **Sullivan M and Tillman K 2006**, *Driving sustainable change: Integrating organizational change management strategies*. (<http://www.docstoc.com/docs/107820088/Driving-Sustainable-Change-Integrating-Organizational-Change->)