

Think-lean Plant Assessment

The Think-lean Plant Assessment examines a number of areas of the business to give an overall score on how the business is performing.

It is not intended to be a scientific research document - just a quick assessment guide for both employees and management teams. If the assessment is carried out on a regular basis, the scores can be used to see how the business improvements within the business are improving the whole business. It also helps to identify the area of the business where a little help may be necessary!

Obviously, if an organisation scores 5's for every point, they must be operating at a world class standard and any company which scores mainly 1s and 2s is definitely in need of change.

Use the tool to honestly assess your plant, then develop a vision and a strategy of how you can make extraordinary gains. Develop the vision and strategy in to an action plan, then implement it.

Using the Think-Lean Assessment Tool

Some of the early questions require a 'yes' or 'no' answer. In these cases score either '5' or '1' respectively.

In all other questions score on a scale of '1' to '5' where '1' is low / poor / just introduced / not used. Score the maximum of '5' for high / good / used throughout the business .

If in doubt as to what score to use, talk about it and resist the tendency to give the benefit of the doubt to the higher score!

Tick the appropriate boxes for each occasion and add the scores for each individual section.

	1	2	3	4	5
1.0 Management					
1.1 Philosophy	<input type="checkbox"/>				<input type="checkbox"/>
1.2 Vision	<input type="checkbox"/>				<input type="checkbox"/>
1.3 Strategy	<input type="checkbox"/>				<input type="checkbox"/>
1.4 Openness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5 Participative management					
1.5.1 Empowerment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5.2 Continuous training at all levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5.3 Responsiveness to ideas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.5.4 Communications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6 Employees					
1.6.1 Cross - functional / multi-skilling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.6.2 Team working on Improvements and problem solving	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.7 Rewards and recognition	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.8 Concept of added value	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.9 Concept of Customers and Suppliers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Section Total	<input type="text"/>				
2.0 Health Safety and Environment					
2.1 Conserving energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Conserving materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Safe environment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.4 Training at all levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.5 Way of life	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Section Total	<input type="text"/>				
3.0 Clean & Tidy					
3.1 5Ss - clean and tidy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.2 5Ss - Everything in the correct place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.3 Visual Factory - areas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.4 Visual Factory - notice boards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Section Total	<input type="text"/>				

Management
Has the plant (General Manager) got a published philosophy for change based over a timescale?
Is there a formal vision of the future - how will the plant be arranged? How will it operate? Who will be the customers?
Is there a strategy with timing and responsibilities for achieving the vision?
Is there a culture of openness throughout the organisation. Are all aware of all major business issues?
Are all employees empowered to make decisions that could ultimately affect the customer?
Does every employee at all levels within the organisation have a formal individual training programme?
Does management allow employees to implement their suggestions?
Are there regular communications from top down. Are there daily briefing meetings throughout the organisation?
Are all employees multi-skilled and paid for their skills?
Do multi-disciplinary teams work to solve problems, however small?
Are all employees rewarded and / or recognised for good performance and customer satisfaction?
Do all employees fully understand the concept of 'added value' and can they recognise 'waste'?
Do all employees understand the concepts of customers and suppliers?
Minimum Target Score 45
Health Safety and Environment
Are procedures and equipment available to conserve energy in all areas of the business?
Is every effort made to conserve and recycle materials. Do designs minimise precious resources?
Is every area of the plant and administration areas safe - free from hazards? Are all risks assessed?
Is Health Safety and Environmental training reinforced regularly?
Do all employees think about Health Safety and the Environment as a way of life?
Minimum Target Score 15
Clean & Tidy
Are all areas of the facility (everywhere including offices) always clean and tidy at all times?
Is everything always in the correct place at the correct time?
Is each area of the facility identified? Could an unaccompanied visitor find his way about?
Are notice boards regularly updated? Do they contain all the information that employees and visitors need to know?
Minimum Target Score 12

4.0 Waste Elimination	1	2	3	4	5
4.1 Seven Wastes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.3 Inventory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.4 Movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.5 Waiting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.6 Overproduction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7 Over processing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.7 Defects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section Total

5.0 Managing Materials	1	2	3	4	5
5.1 Scheduling					
5.1.1 Inventory / WIP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1.2 MRP / ERP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1.3 Accuracy of system	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1.4 Balanced schedules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.1.5 Issuing of schedules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Theory of Constraints					
5.2.1 Efficiency of constraint	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2.2 Schedule the Bottleneck	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2.3 Schedule adherence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.2.4 Flow	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Pull	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.4 Kanbans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.5 Supply Chain Integration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.6 Supplier Partnerships	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.7 Reduced materials handling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Section Total

Waste Elimination
Can employees throughout the business list the seven wastes?
Has as much transport as possible between departments, suppliers, customers and sub-contractors been eliminated?
Has inventory been reduced to the absolute minimum, offsite warehouses closed, and piles of documentation eliminated?
Has internal movement in the process been eliminated? Are ergonomics good throughout the business?
Has waiting been eliminated from everything? Do all meetings start on time? Are all supplies delivered on time?
Are only the volumes required by the customer processed?
Have all manufacturing and business processes been reviewed to ensure that they are essential?
Have defects been eliminated. Is the root cause of any defect immediately identified?

Minimum Target Score 24

Managing Materials
Are WIP and Inventory monitored daily and the value reduced frequently?
Are the ERP/MRP/MRP II systems 'spring cleaned'? Are they flexible? Can they fit in with 'lean thinking' practices?
Are the outputs of the ERP system accurate. Do the schedules need to be manually adjusted?
Are production schedules levelled to smooth the peaks and valleys of production?
Are schedules issued within hours of being prepared?
Do all employees understand TOC. Do they know the constraint of the plant and the bottleneck in their own area?
Is only the efficiency of the constraint and bottleneck processes monitored?
Are all manufacturing schedules based on the constraint or bottleneck processes?
Is schedule adherence monitored throughout the business?
Do components flow through the processes? Do documents flow through the office?
Is work pulled by the customer from the supplier on every occasion?
Are Kanbans utilised wherever possible in manufacturing and administration areas?
Are all suppliers aware of the plant's vision and strategy and do suppliers feel part of it?
Are their true partnerships where there is total trust and two way communication with suppliers?
Do the customer and suppliers work together to eliminate materials handling and packaging?

Minimum Target Score 45

6.0 Continuous Improvement	1	2	3	4	5
6.1 Set Up Reduction					
6.2 Just In Time					
6.3 Mistake Proofing					
6.4 Cycle Time Reduction					
6.5 Flexibility					
6.6 Standard Work					
6.7 Takt Time					
6.8 Cellular management					
6.9 Flow / space utilisation					
6.10 Process Mapping					
6.11 TPM					
6.12 OEE					
6.13 Concurrent engineering / appropriate technology					
6.14 FMEA - process and design					
6.15 Six Sigma					

Section Total

7.0 Technology & Automation	1	2	3	4	5
7.1 Sensible					
7.2 Paperless					
7.3 Equipment / Tooling / Maintenance					
7.4 Zero defects					

Section Total

8.0 Quality Systems	1	2	3	4	5
8.1 Audits					
8.2 SPC					
8.3 At source					
8.4 Supplier rating					

Section Total

Total

Continuous Improvement
Are set ups / changeovers continually being reduced to allow smaller batches to be manufactured?
Is the principle practiced with both suppliers and customers?
Are all processes mistake proofed.?
Is the period from customer order to payment as short as possible?
Are all employees mutiskilled? Do processes have alternative routes? Can equipment process more than one type of part?
Is the concept understood and implemented throughout the facility? Are standard operation sheets used?
Has the Takt time been calculated for all processes?
Does the business operate as a number of empowered factories within a factory or offices with an office?
Has the use of space been minimised? Are processes close together? Do parts flow from process to process?
Have the key processes been mapped to eliminate waste and to develop a continuous improvement plan?
Has TPM been implemented on all constraint and bottleneck machines? Is it being rolled out to the whole plant?
Is OEE used on all constraint and bottleneck processes?
Are all new designs developed within a multi-disciplinary team?
Are FMEAs prepared for all processes and designs?
Is the concept understood. Is the process practiced?

Minimum Target Score 45

Technology & Automation
Is appropriate technology is used throughout the facility. Is redundant equipment is disposed of?
Has most documentation been replaced by electronic systems?
Is all equipment and tooling maintained and serviced after use?
Does the policy of zero defects apply to all support services and administration?

Minimum Target Score 12

Quality Systems
Are quality audits carried out rather than an inspection process?
Is SPC practiced and control charts updated regularly on all critical processes?
Are operators responsible for their own quality? Do they check received parts before working them?
Is a supplier rating system available, based on quality, schedule adherence and cost?

Minimum Target Score 12

Minimum Target Score 210