

## SC21 Manufacturing Excellence

Issue 01 December 2013

# **Assessment Toolset**

# Diagnostic and Management Commitment

Prepared by:-

The SC21 Performance, Development and Quality (PDQ) Special Interest Group (SIG)

#### Acknowledgement

The scoring methodology used in the Management Commitment element of the SC21 Manufacturing Excellence Assessment is based on the EFQM RADAR<sup>®</sup> scoring matrix. ADS Group acknowledges the EFQM copyright and is grateful for the permission granted to reproduce the RADAR<sup>®</sup> scoring matrix within this document.

Participating companies should be provided with or obtain a copy of EFQM Excellence Model ISBN: 978-90-5236-670-8 to be used in conjunction with this document.

### Manufacturing Excellence assessment

Information on deploying this assessment proforma can be found in the Manufacturing Excellence Process Overview document, available from the SC21 web page:- http://www.adsgroup.org.uk/pages/10071963.asp

### **Diagnostic - Scoring**

Scoring the 20 box Manufacturing Excellence 'Diagnostic' assessment follows a consistent framework, reflecting the maturity of deployment of the various improvement Tools & Techniques.

The "Expectations" provide guidance to the Practitioner and Company involved for scoring between 0 and 4.

It is accepted that the terminology used within a Diagnostic may not align directly with the commodity or service being assessed.

In these instances the Practitioner will interpret the diagnostic to match the situation and then provide realistic and valued feedback of strengths and areas for improvements.

The output of the Diagnostic assessment is Strengths and Areas for Improvement (AFI).

Strengths can be used as standards or examples of best/good practice and cascaded to other work areas or parts of the business.

AFIs can be analysed for benefit to the business, action taken and incorporated in the CSIP.

AFI – Areas for Improvement	CSIP – Continuous Sustainable Improvement Plan
DLF – Direct Line Feed	DSA – Delivery Schedule Achievement
EFQM – European Foundation for Quality	EBQ – Economic Batch Quantity
Management	
EOQ – Economic Order Quantity	MRP – Manufacturing Resource Planning
NVA – Non Value Added	NVQ – National Vocational Qualification
OEE – Overall Equipment Effectiveness	RC & CA – Root Cause and Corrective Action
SMART – Specific, Measurable, Achievable, Realistic,	SMED – Single Minute Exchange of Die
Time bound	
SPC – Statistical Process Control	SUR – Set Up Reduction
TPM – Total Productive Maintenance	VSM – Value stream Map
WIP – Work in Progress	7QT – 7 Quality Tools

#### Acronyms

)	10/	nn	$\gamma c_1$	
ப	Iav	או וג	J31	
		J		

Visual Control	Visual Control	Visual Control	Visual Control	5S Workplace Organisation
Delivery Schedule Achievement	Non-conformance	Improvement Activities	Skills Matrix	Environment
<ul> <li>In the work area, a clear visual display of planned versus actual delivery is evident</li> <li>Reasons for variance and corrective action are recorded</li> <li>Plan communicated and understood by team</li> <li>Subject to continual review and updated by cell members</li> </ul>	<ul> <li>Scrap or non-conformance cost is displayed / understood by all in work area</li> <li>Defect levels compare favourably with cell or departmental target and are reducing</li> <li>Scrap / non-conformance analysis and corrective actions displayed and topical</li> <li>Subject to review, historical records are analysed to generate improvements</li> </ul>	<ul> <li>Topical activity board, displaying what improvement activities are actually taking place – links to CSIP</li> <li>Daily / weekly meetings centred around the visual control board</li> <li>Targets are shown for all improvements e.g. quality, delivery, cycle time</li> </ul>	<ul> <li>All relevant skills for the work area are identified on the matrix, including 'soft skills</li> <li>Skills are aligned to current and planned capacity demand</li> <li>Evidence exists that these competencies are actively used and updated</li> <li>Training programme in place to support future requirements</li> </ul>	<ul> <li>Area is clean and in order, "show room" type environment</li> <li>5S 'Sustain' is evident</li> <li>5S standards or policy are displayed and agreed by all in cell</li> <li>Pathways, storage areas, safety equipment, all work areas and hazards are clearly marked</li> </ul>
5S Workplace Organisation Address and Place	Set Up Reduction	Standardised Job	7 Quality Tools	Statistical Process Control
<ul> <li>Showroom 'Address and Place'</li> <li>WIP, materials and consumables are clearly marked and held in identified locations, within suitable storage media</li> <li>High frequency use tools held within working area (shadow boards); low frequency tools held off-line</li> <li>Effective use of colour coding to identify different products, floor markings, storage areas</li> </ul>	<ul> <li>Detailed analysis of set up elements and evidence of continual improvement (internal &gt;&gt; external)</li> <li>Key processes have addressed SUR activity, operators are involved</li> <li>SUR activity links to inventory and batch size reductions</li> <li>Target and actual set-up time is displayed and analysed</li> </ul>	<ul> <li>Standards defined - A formalised method / time study has documented procedures, tasks and times relating to Manpower, Machines, Equipment and Materials</li> <li>All team/cell members understand and have contributed to the standards</li> <li>Standard job 'benchmark' - insignificant deviation in actual versus standard time, any deviations are analysed</li> </ul>	<ul> <li>All work area team members are trained in use of the 7 Quality Tools - Pocket Guides are used for reference and training/examples held on local network</li> <li>Process, test and inspection data is collected and stored for easy access and interrogation</li> <li>Evidence that many of the 7 Quality Tools are used by cell members</li> </ul>	<ul> <li>All processes have been assessed for SPC applicability</li> <li>Operators are trained in collection and analysis of SPC data, thorough understanding of SPC principles</li> <li>Opk's of 1.66 being achieved</li> <li>Operators taking action on out of control conditions</li> </ul>
Overall Equipment	Due du eti itu kana ana ant	7 Wastes	7 Wastes	7 Wastes
Overall Equipment Effectiveness	Productivity Improvement	7 Wastes Processing	7 Wastes Movement	7 Wastes Transportation
Overall Equipment Effectiveness • All key equipment have OEE measures displayed showing current status • The measure is higher than industry average of 60% and approaching best in class of 85% • All Team members understand OEE principles and action on any deviation in performance • OEE data collection is automated	Productivity Improvement <ul> <li>All work area members have been trained in the tools and techniques to identify and eliminate Waste</li> <li>Waste removal and defect reduction activities are active and displayed, SMART actions noted</li> <li>Non-value added manual processes have been automated</li> <li>Target / actual Productivity displayed</li> </ul>	7 Wastes Processing • Value stream mapping is used routinely to identify opportunities for improvement in manufacturing time • Process efficiency (value added time ÷ total lead time) is improving, targets are set • Process operations are optimised, documented and reviewed • Equipment design is appropriate and effective	7 Wastes Movement • Operators are working effectively - no unnecessary bending, stretching, walking, lifting or reaching • Mechanism in place for providing operators with next job, jigs and fixtures, materials, specifications, instructions • Workplace ergonomics considered best practice	7 Wastes Transportation • Minimum distances required to transport product, tooling, materials • Facilities arranged to achieve uni-directional product flow • Close coupling of operations - work benches, plant and equipment • Transportation media is designed to fully protect the product from damage
Overall Equipment Effectiveness • All key equipment have OEE measures displayed showing current status • The measure is higher than industry average of 60% and approaching best in class of 85% • All Team members understand OEE principles and action on any deviation in performance • OEE data collection is automated 7 Wastes Defects	Productivity Improvement <ul> <li>All work area members have been trained in the tools and techniques to identify and eliminate Waste</li> <li>Waste removal and defect reduction activities are active and displayed, SMART actions noted</li> <li>Non-value added manual processes have been automated</li> <li>Target / actual Productivity displayed</li> </ul> 7 Wastes Waiting Time	7 Wastes Processing • Value stream mapping is used routinely to identify opportunities for improvement in manufacturing time • Process efficiency (value added time ÷ total lead time) is improving, targets are set • Process operations are optimised, documented and reviewed • Equipment design is appropriate and effective 7 Wastes Inventory	7 Wastes Movement • Operators are working effectively - no unnecessary bending, stretching, walking, lifting or reaching • Mechanism in place for providing operators with next job, jigs and fxtures, materials, specifications, instructions • Workplace ergonomics considered best practice 7 Wastes Overproduction	7 Wastes Transportation • Minimum distances required to transport product, tooling, materials • Facilities arranged to achieve uni-directional product flow • Close coupling of operations - work benches, plant and equipment • Transportation media is designed to fully protect the product from damage Kanban

Min score is 0, Max score is 4

Visual Control Delivery Schedule Achievement	
How the work area communicates the production/delivery plan and takes correct	tive actions.
Expectations	
4. Benchmark In the work area, a clear visual display of planned versus actual product Time period should be appropriate, e.g. hourly, daily or weekly Reasons for variance and corrective action are recorded and displayed Plan communicated and understood by team Subject to continual review and updated by work area members	tion/delivery is evident
3. Contender In the work area , a clear visual display of planned versus actual produ Time period should be as appropriate, e.g. hourly, daily or weekly Reasons for variance and corrective action not recorded Plan communicated and understood by team	ction/delivery is evident
<ol> <li>Performer         In the work area , a clear visual display of planned versus actual produ Information is not time specific Reasons for variance and corrective action not recorded Team understanding     </li> </ol>	ction/delivery is evident
<ol> <li>Developer Production/delivery schedules are displayed as paper copies, no record Little / no team involvement / understanding</li> </ol>	d of variance.
0. Learner No visual indication of production/delivery schedule exists	
Look For : Work to list on Visual Control or on computers at all work stations Business system (MRP) schedule translated as simplified Visual Control Priorities are identified Documented variance and corrective actions with responsibilities and timescales noted Commitment by all to meet delivery performance	Overall progress of Production Plan or DSA Control period, e.g. hourly, daily, weekly Shortage Lists (MRP or manual generation) Inventory levels are recorded

Visual Control Non-conformance	
How the work area communicates and monitors the impact of non-conformance	
Expectations	
4. Benchmark Scrap or non-conformance cost is displayed and understood by all in t Defect levels compare favourably with work area or departmental targe Scrap / non-conformance analysis and corrective actions displayed an Subject to review, historical records exist and are analysed to generate Links to CSIP Team ownership	he work area et and are reducing d topical e improvements
3. Contender Scrap or non-conformance cost documented (perhaps not displayed) Actual defect levels are compared with work area or departmental targ Scrap / non-conformance analysis and corrective actions displayed (per Subject to review, historical records exist Team understanding	et and are improving erhaps not topical)
<ol> <li>Performer Actual scrap / non-conformance levels displayed, but no target Subject to review, historical records exist Some team understanding</li> </ol>	
<ol> <li>Developer         Non-conformance monitored but not displayed Little/no team involvement or understanding     </li> <li>Learner         No monitoring of scrap and / or non-conformance     </li> </ol>	
Look For : Non-conformance e.g. scrap, defects, wastage, concessions, rework, incorrect document	ation
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan
Analysis of reasons for non-conformance – pareto charts, fishbone diagrams Root cause and corrective action mechanisms Cost of Quality (i.e. Prevention, Inspection, Rework/Repair) Quality improvement teams are active	Target versus actual non-conformance levels Improvement plan

Visual Control Improvement Activities		
How the work area ensures visibility of improvement initiatives		
4. Benchmark Topical visual control, displaying what improvement a Activities are time bound with responsibilities indicate Daily / weekly meetings centred around the visual con Targets are shown for all improvements e.g. quality, o Team ownership	activities are actually taking place – links to CSIP ed ntrol delivery, cycle time	
3. Contender Topical visual control, displaying what improvement a Activities are time bound with responsibilities indicate Daily / weekly meetings centred around the visual con Targets are not shown Team understanding	activities are actually taking place d ntrol	
<ol> <li>Performer         Improvement plans / activities displayed but lack sufficient visual control is not topical         Some team understanding     </li> </ol>	icient detail to effectively progress issues	
<ol> <li>Developer Information displayed is of a general nature, e.g. proc Little or no team involvement or understanding</li> </ol>	cess improvement tools, health & safety	
0. Learner No work area improvement activities visual control in	use	
Look For : Local visual control - notice board, on screen Mechanism for employee suggestions Ownership of visual control (evidence of team meetings) Type of information displayed Topicality and active use of visual control	Main / major improvement initiatives Before & after information Quantified benefits Historical information Activities have SMART objectives	

Visual Control Skill Matrices
How the /work area monitors current and future skills requirements.
Expectations
4. Benchmark All relevant skills for the area are identified on the matrix, including 'soft skills e.g. 5S, 7 Quality Tools, 7 Wastes Skills are aligned to current and planned capacity demand Skills matrices displayed showing current and future skill requirements Evidence exists that competencies are actively used and updated Training programme in place to support future requirements (not necessarily displayed) Team ownership
3. Contender Most skills are aligned to current and planned capacity demand Skills matrices displayed showing current and future skill requirements Evidence exists that competencies are actively used and updated Team understanding
2. Performer Skills are aligned to current capacity demand Skills matrices displayed showing current skills Future skills or training not identified Some team understanding
1. Developer Not all skills have been identified Skills matrices not displayed Little or no team involvement or understanding
0. Learner Skills matrix not considered "Team Leader knows all teams skills"
Look For :       Visible skills matrices         Cross skilling and how this contributes to effective resource utilisation       Visible skills matrices         Process for identifying current and future skills requirements (e.g. colour coded)       Links to NVQ's         Operator incentives to acquire additional competencies       Links to NVQ's         Training Programmes       Competencies required within the work area / department

5S Workplace Organisation Environment		
How the work area deploys a structured approach to workplac	e organisation and cleanliness.	
Expectations		
4. Benchmark Area is clean and in order, "show room" type environ 5S standards or policy are displayed and agreed by a 5S assessments are conducted regularly, results and Pathways, storage areas, all work areas and hazards Fire extinguishers and safety equipment clearly mark	ment 5S 'Sustain' is evident all in work area. All in work area trained in 5S I actions are displayed s such as high voltage or moving equipment are clearly marked ed Calibration and TPM deployed	
<ol> <li>Contender</li> <li>Good general environment</li> <li>5S standards or policy are displayed</li> <li>5S assessments are conducted, results and actions a Most pathways, storage areas, work areas, hazards,</li> </ol>	Scope to improve 5S 'Standardise' 5S training conducted are displayed 5S areas of responsibility displayed fire extinguisher and safety equipment are marked	
<ol> <li>Performer</li> <li>Average general environment</li> <li>5S programme has started, some training done</li> </ol>	Some marking and labelling 5S standard being prepared	
1. Developer Plan to implement 5S programme being developed	Some examples of 5S practice	
0. Learner Very untidy - room for improvement		
Look For : Defined 5S standards or policy Frequency of 5S assessments Sort exercises have been conducted 5S areas of responsibility displayed Floor and work bench cleaning disciplines being followed Excessive use of 'Post It' notes	Links to calibration and operator TPM checks. 5S results and actions are up to date Red tag area is defined. All work area members have been trained in 5S Clean Room controls are adhered to, audits conducted	

5S Workplace Organisation Address and Place		
How the work area ensures good workplace organisation.		
Expectations		
<ul> <li>4. Benchmark</li> <li>4. Benchmark</li> <li>Showroom 'Address and Place' 5S check sheets in use 'Sweep' is practiced throughout the day WIP, materials and consumables are clearly marked and held in identified locations, within suitable storage media High frequency use tools held within working area (shadow boards); low frequency tools held off-line Tooling, materials and process or test equipment are easily accessible to the operator Effective use of colour coding to identify different products, floor markings, storage areas</li> </ul>		
3. Contender Good level of 'Address and Place' Most materials, consumables and parts are safely and neatly stored a High frequency use tools held within working area (most on shadow b Colour coding for marking and labelling has been done but needs a reader of the store of th	'Sweep' is practiced at the end of the shift and in appropriate locations board), low frequency use tools held off-line efresh 5S Check sheets in use	
<ol> <li>Performer         Average level of 'Address and Place'         Locations not obvious for some materials, parts, tools, etc.         5 S Check sheet being developed.     </li> </ol>	'Sweep' is not routine Some use of colour coding 5S Improvement plan being implemented	
<ol> <li>Developer Poor level of 'Address and Place'</li> <li>5S programme currently being planned for implementation</li> </ol>	'Sweep' rarely practised	
0. Learner Not practised Locations not obvious for majority of materials, parts, tools, etc.	Cluttered storage	
Look For :High frequency toAccessibility of material and process equipmentHigh frequency toUse of colour codingObsolescent toolPersonal toolboxesShadow Boards/Materials, consumables and tools kept in drawersWhen and by whStorage media (shelves and cupboards) is appropriate for material, sub-assemblies, WI	use tools within working envelope ling, fixtures and excess material. /Drawers nom is 'Sweep' practiced P and product – contents identified	

Set-Up Reduction		
How the work area employs the techniques of Set-Up Reduction		
Expectations		
4. Benchmark Detailed analysis of set up elements and evidence of continual improvement Key processes have addressed SUR activity, operators are involved SUR activity links to inventory and batch size reductions Target and actual set-up time is displayed and analysed Regular reviews are conducted to identify further improvements	(internal → external)	
3. Contender Task team in place to analyse set up times and follow through on actions for Key processes have been targeted for SUR activity, operators are being invo SUR activity is driven by plans to reduce inventory and batch sizes Target and actual set-up times are displayed, evidence of review and set up	SUR blved time is progressively reducing	
<ol> <li>Performer         A Task team has been created to analyse set up times and prepare an action Key processes are being identified for SUR activity         Target and actual set-up times are recorded but no review is undertaken for     </li> </ol>	n plan for SUR improvement	
<ol> <li>Developer         A plan exists to establish key processes which require SUR         Set-up recorded on job card / work instruction but no record of actual time taken     </li> </ol>		
0. Learner No / or anecdotal evidence exists of SUR activities		
Look For :UnderstandingSet-up time on job cards and actual time recordedUnderstandingSUR training documentationVideo recordin5S practice in place – shadow boards, colour codingAvailability of tFacilities / operations with long set-up timesBottlenecksStandard Set-up Times (Family of Parts/Tools)SMED practice	of Internal and External set up gs of set-ups ools, materials, instructions es	

Standardised Job	
How the work area develops capable and repeatable processes.	
Expectations	
4. Benchmark Method and Time Standards defined - A formalised method times relating to Manpower, Machines, Equipment and M All work area members understand and have contributed Standard job 'benchmark' - insignificant deviation in actual Subject to review and updated to reflect improved method	od and time study has documented procedures, tasks and aterials to the standards al versus standard time, any deviations are analysed ds
3. Contender Standards defined at appropriate level of detail for most p All work area members understand the standards Standard job 'performing' - minor deviations in actual vers Subject to review and updated to reflect improved method	processes / operations sus standard time, deviations are analysed ds
<ol> <li>Performer</li> <li>Standards defined at appropriate level of detail for some p Standard job 'developing' - deviations in actual versus sta Some evidence of analysis or occasional review of standard</li> </ol>	processes / operations andard time ards but no formal review
1. Developer Plans exist to address method and time definition and acc Standard time documented on job card / work instruction	curacy Evidence of review cycle in the plan (perhaps not measured)
0. Learner Insufficient detail to allow standard method of working for Significant variations No review c	most processes / operations ycle in operation
Look For :InvoMethod and time study conductedInvoActual and Standard time recordedStaLinks to SPC data – Cpk is knownJobUse of diagrammatic aids, photographsUseFrequency that method and time are reviewedImp	olvement of work area members indard time variances are analysed o card amendments to reflect improved method e of "Haynes" manual step by step approach provement plans

7 Quality Tools
How the work area utilises 7 Quality Tools, for problem identification / analysis & improvement.
Expectations
4. Benchmark All work area team members are trained in use of the 7 Quality Tools 7 Quality Tools Pocket Guides are used for reference and training/examples held on local network, accessible by all Clear evidence that problems are identified, analysed and improvements generated Process, test and inspection data is collected and stored for easy access and interrogation Evidence that many of the 7 Quality Tools are used by work area members
<ol> <li>Contender</li> <li>Most work area team members are trained in use of 7 Quality Tools</li> <li>7 Quality Tools training/examples held on local network, accessible by all</li> <li>Process, test and inspection data is collected and stored for easy access and interrogation</li> <li>Evidence that the 7 Quality Tools are used by work area members</li> </ol>
<ol> <li>Performer</li> <li>Some people in the work area team trained in use of Quality Tools</li> <li>7 Quality Tools training/examples held on local network drives, but not accessible by all</li> <li>Some evidence of 7 Quality Tools use by work area members but information comes mainly from QA or other departments</li> </ol>
<ol> <li>Developer Some evidence of 7 Quality Tools use by work area members but information comes mainly from QA department Plans exist to introduce the 7 Quality Tools</li> </ol>
0. Learner No / anecdotal evidence of use of the 7 Quality Tools
Look For :         7 Quality Tools: -         SPC Applications, Pareto Analysis, Cause & Effect Analysis, Process Mapping, Check sheets, Histograms, Run / Correlation Diagrams         Evidence of team meetings       Pocket Guides, training material and proformas available         Communications of findings       Improvement plans         Local Champion       Use of Brainstorming Techniques

Statistical Process Control	
How the work area employs Statistical Process Control.	
Expectations	
4. Benchmark All processes have been assessed for SPC applicability Work area members are trained in collection and analysis of SPC data, there is a thorough understanding of SPC principles Control Plans / Control Limit History Records exist for key processes, Cpk's of 1.66 being achieved Work area members taking action on out of control conditions, group problem solving techniques being used	
3. Contender Most processes have been assessed for SPC applicability Work area members trained in collection and analysis of SPC data, good understanding of SPC principles Key processes in control Cpk's of 1.33 being achieved Work area members taking action on out of control conditions	
<ol> <li>Performer</li> <li>Some processes have been assessed for SPC applicability Control charts in use within work area and control limits calcul Some SPC training has been conducted, analysis and action to</li> </ol>	Plans exist to develop SPC further ated for some key processes tends to be by QA or Engineering departments
<ol> <li>Developer SPC plan being developed Control Charts being introduced within the work area, key proc Basics of SPC understood</li> </ol>	cesses have been identified
0. Learner No evidence of SPC being used within the work area	
Look For : Evidence of applications within the work area Background information (e.g. Control Plans, Charts, Logs) Are the processes in Control Has training been provided to all in the work area Is SPC terminology understood (e.g. In-Control / Capable / Centred)	Control charts displayed Links to Problem Solving Tools Action taken to bring under control Pocket guides, training material available Automated data collection

Overall Equipment Effectiveness (OEE)			
How the work area ensures equipment is always available and working correctly.			
Expectations			
4. Benchmark All key equipment have OEE meas The measure is higher than indust All work area members understand Historical evidence of actions and Subject to regular review to mainta	sures displayed showing cu ry average of 60% and app d OEE principles and take c achievements are available ain performance and identify	rrent performance roaching best in cla wnership and action wimprovements	ass of 85% on on any deviation in performance OEE data collection is automated
3. Contender Most key equipment have OEE measures which are displayed showing current performance and targets OEE measures are benchmarked against industry average of 60% Most work area members understand OEE principles and take action to improve performance Subject to review, historical records exist			
<ol> <li>Performer</li> <li>Some equipment have OEE measures with targets set (perhaps not displayed but held on local computer) Elements of OEE (availability, performance rate, quality) are being measured and improvements identified Work area have some understanding of OEE</li> <li>OEE training planned</li> </ol>			ut held on local computer) id improvements identified nned
1. Developer Elements of OEE are being measu A plan is being prepared to develo	ured p OEE	Equipment has b Work area have	been identified for OEE no understanding of OEE
0. Learner Overall Equipment Effectiveness h	nas not been considered		
Look For : OEE measure calculated as Availability <b>x</b> Perforr Breakdowns Team understanding Total Productive Maintenance Equipment Return on Investment	nance rate <b>x</b> Quality Set up adjustments Improvement plans Application of 5S Plant/equipment utilisation m	leasures	Changeovers Benchmarking / target setting Links to value stream mapping OEE loss categories analysed

Productivity Improvement	
How the work area improves product/service quality and output per worker.	
Expectations	
4. Benchmark All work area members have been trained in the tools and techniques Waste removal and defect reduction activities are active and displaye Non-value added manual processes have been automated Defects per unit are measured, improving, displayed and at or better to Target and actual productivity levels are displayed	to identify and eliminate Waste d, SMART actions noted Subject to review, historical records exist han target level Work area ownership
3. Contender All work area members have been trained in the tools and techniques Waste removal and defect reduction activities are active and visible, a Plans exist to automate NVA manual processes Target and actual productivity levels exist (not displayed)	to recognise and eliminate Waste actions noted Defects per unit are measured & displayed Work area involvement
<ol> <li>Performer</li> <li>Some Waste removal and defect reduction activities are active, action The automation of NVA manual processes is being considered Target and actual productivity levels are being developed</li> </ol>	ns noted Plans to measure defects per unit Some work area understanding
<ol> <li>Developer Activities to address people productivity and/or defect reduction have Plans exist (not displayed) Little/no work area understanding or involvement</li> </ol>	started
0. Learner No structured people productivity improvement activities	
Look For :FacilityWork improvement activities to change work rules and redistribute workFacilityStandard time is allocated for each operationActualStandard time versus actual time is analysed for any variance – work area members areStandard time is continually improvedDefect recording and analysisKaizen	r improvement activities to introduce automation time is recorded for each operation involved dologies used to eliminate defects activities

7 Wastes Processing	
How the work area optimises processing / manufacturing time.	
Expectations	
4. Benchmark Value stream mapping is used routinely to identify opportunities for imp Process efficiency (value added time ÷ total lead time) is improving, tai Process operations are optimised, documented and reviewed Equipment design is appropriate and effective The lead time for each product/service is known and displayed Customer requirements fully specified and processing matched to prev	provement in processing time rgets are set Non value added operations are minimised Minimum levels of process waste vent over-processing
3. Contender Process operations have been optimised and documented, VSMs are Team involvement / ownership of plans to improve processing efficience Non value added operations are being minimised The lead time for each product is known and displayed Customer requirements understood and fully specified	being prepared cy Equipment design is appropriate Minimum levels of process waste
2. Performer Process operations are documented Plans exist, at managerial level, to improve process efficiency Action in hand to reduce non value added operations Customer requirements understood and specified to some degree	Some process waste
<ol> <li>Developer Process flow charts are being prepared or exist but are not used Process or general waste evident</li> </ol>	Improvement plans being developed
<ol> <li>Learner         Processing waste frequently observed - non-value added operations, in material, ineffective training and work instructions     </li> </ol>	nappropriate equipment used, over size Process or general waste clearly evident
Look For : Facilities / equipment – appropriate to the process Workpla Tests and inspections are reducing VSM or Process operations numbered and defined Excessive materials and WIP Effective work instructions Appropriate training Appropriate use of jigs and fixtures – reviewed and improved	ace ergonomics - U shaped production line Process flow charts displayed Flow of work follows a set route Optimisation software used

7 Wester		
7 Wastes Movement		
How the work area reduces / eliminates non-value added movement of personnel.		
Expectations		
<ul> <li>4. Benchmark         Operators are working effectively - no unnecessary bending, stretching, walking, lifting or reaching         Mechanism in place for providing operators with next job, jigs and fixtures, materials, specifications, instructions         Minimum movement "off" or "around" the job         Workplace ergonomics considered best practice         Rules of movement economy understood by all in work area and is regularly reviewed     </li> </ul>		
3. Contender Operators are working effectively, minimal bending, stretching Mechanism in place for providing operators with next job, jigs Some movement "off" or "around" the job Rules of movement economy understood but not fully deployed	g, walking, lifting or reaching and fixtures, materials, specifications, instructions Scope for improvement in workplace ergonomics ed, infrequent reviews	
<ol> <li>Performer</li> <li>Wasted movement observed</li> <li>Some line side deliveries of materials, tools, etc.</li> <li>Some awareness of rules of movement economy, improvement</li> </ol>	Operations are not close coupled Scope for improvement in workplace ergonomics ent plans exist at managerial level	
1. Developer Wasted movement observed Operator collects next job, materials etc.	Operations are not in same area No awareness of rules of movement economy	
0. Learner Excessive time spent looking for tools, jigs, collecting materials or next job Little apparent consideration given to workplace ergonomics		
Look For : Close coupled plant and equipment Product flow paths – workplace ergonomics, 5S Mechanism for providing next job Use of spaghetti diagrams	Distance between operations 'Double handling' of material or WIP All relevant documentation issued with job Wasted floor space	

7 Wastes		
Transportation		
How the work area reduces / eliminates non-value added transportation activities of Product.		
Expectations		
4. Benchmark Minimum distances required to transport product, tooling, materials, etc. Facilities arranged to achieve uni-directional product flow Close coupling of operations – work/test benches, plant and equipment Transportation media (trolleys, boxes, packaging) is designed to fully protect the product from damage Minimum inter-operation storage		
<ul> <li>3. Contender</li> <li>Some transportation waste observed</li> <li>Scope for further improvement of layout to improve product flow or close coupling of operations</li> <li>Transportation media (trolleys, boxes, packaging) is designed to protect the product from damage</li> <li>Some inter-operation storage</li> <li>Opportunities captured and addressed in an improvement plan</li> </ul>		
<ol> <li>Performer</li> <li>Transportation waste observed, some disruption to product flow due to work area layout A plan is in place to reduce transportation of product (progress might not be recorded) Some scope for improvement in transportation media</li> </ol>		
<ol> <li>Developer Transportation wastes understood and identified Plans being developed to reduce transportation need</li> </ol>	ls (e.g. a cellular layout)	
0. Learner Excessive movement and handling required No evidence of a planned product flow (separate buil Transportation media for product is inappropriate and	dings or isolated operation areas) I offers little protection from damage	
Look For : Product flow (Walk the Process) Distances between operations Transportation media is designed for the product, WIP or material Improvement plans Use of spaghetti diagrams	Workplace ergonomics, 5S Close coupled benches, plant and equipment Double handling of material or WIP Inter-operation storage	

7 Wastes Defects	
How the work area ensures quality at source.	
<ul> <li>4. Benchmark         Appropriate prevention based detection mechanisms employed in key processes, e.g. in-process checks to capture errors at source, use of mistake proofing techniques         Self inspection employed for all jobs / processes         Defect root cause and corrective action analysis used to verify and update in-process checks and self inspection     </li> </ul>	
3. Contender Majority of key processes have appropriate prevention based detection mechanisms employed Self inspection employed for majority of jobs / processes Defect root cause and corrective action analysis used to determine effectiveness of in-process checks and inspections	
2. Performer Some prevention based detection mechanisms employed, Management plans to deploy further Plans exist to implement operator self inspection for the majority of jobs / processes Defect root cause and corrective action analysis being used to determine level of in-process checks & inspections	
<ol> <li>Developer Mistake proofing understood and opportunities identified within key processes Some self inspection, but mainly downstream inspection</li> </ol>	
0. Learner Anecdotal or no evidence of mistake proofing or defe Downstream inspection employed, e.g. final inspectio	ct prevention n, no self inspection
Look For : 'Critical to Quality' checks Analysis and feedback of root cause and corrective actions Operator self inspection on skills matrix Use of mistake proofing techniques (Poka Yoke)	In-process tests and inspections on job cards Use of check sheets Location and size of final inspection department Use of statistical techniques

7 Wastes Waiting Time	
How the work area ensures waiting time is minimised / optimised	
Expectations	
<ul> <li>4. Benchmark         Operators are working effectively and adding value         Product moves to the next operation with minimum of delay         Mechanism in place for scheduling next job to line-side         Any waiting time is measured and analysed (through variance)     </li> </ul>	No process or equipment bottlenecks Overall Equipment Effectiveness measured reports on 'shop floor/work data collection' system)
3. Contender Operators are working effectively Some delay in starting next operation Mechanism in place for scheduling next job Waiting time measured and reducing	Some waiting time observed, people and/or product Bottlenecks are being addressed OEE being developed Plans in place to reduce waiting time
<ol> <li>Performer</li> <li>Waiting time noted - people and product</li> <li>Waiting time measured (perhaps no action being taken)</li> <li>Plans exist, at managerial level, to reduce waiting time</li> </ol>	Bottlenecks are being addressed
<ol> <li>Developer Waiting time noted for people and/or product Plans being developed to reduce waiting time</li> </ol>	Bottlenecks have been identified
0. Learner Excessive waiting time, waiting for – people, parts, equipment	, material and/or response from management
Look For : Queue times at shared facilities (test, inspection, conformal coating) Unbalanced work load between operations Waiting time is measured and analysed for resource allocation Excessive Inventory - material, WIP or finished goods Operators are empowered to make decisions	Bottleneck processes Poorly maintained equipment, lack of TPM Skills matrices - skills aligned to demand Material shortages Travel distances

7 Wastes	
How the work area is addressing the issue of batch size and inventory reduction	
Expectations	
4. Benchmark Products are produced in pre-defined batch sizes (A,B,C categorisation Only planned material and WIP in work area and planned finished good Agreed batch sizes delivered by Suppliers - aligned to work area usage Inventory management process optimised to maintain gains Customer and supplier kanban agreements in place	n, logic defined) ls/products held as stock e (daily, weekly)
3. Contender Minimum / planned inventory in work or as stock Topical plan in progress addressing batch size methodology in line with Plan in hand to align batch sizes delivered by Suppliers to work usage Significant gains recorded against inventory reduction plan Significant deployment of kanban methods e.g. direct line feed, two bin	A,B,C logic defined A,B,C approach (daily, weekly) , max/min levels
<ol> <li>Performer         Plan exists to change batch sizes to reflect A,B,C methodology Inventory reduction plan deployed         Some deployment of kanban methods     </li> </ol>	A,B,C logic defined
<ol> <li>Developer Batch sizing / classification understood, not yet defined Product batch size/inventory reduction plan being developed</li> </ol>	Kanban methods being considered.
0. Learner Large and variable batch sizes and/or high levels of inventory exist with	no supporting methodology
Look For : Excessive WIP and material on shelves, in lay-by stores or on floor Amount of Use of Kanban mechanisms (e.g. 2 Bin, Min/Max, DLF) Visual display of Inventory in Batch sizes delivered by supplier Supplier Delivery Agreements Communication of customer schedule Number of different products A,B,C categorisation by value/item count: typically A class = 70%/10%, B class = 25%/30%	of product in finished goods store or as stock work area EBQ / EOQ methodology s Vendor Managed Inventory in work area One piece production 6, C class = 5%/60%

7 Wastes	
How the work area matches supply with customer demand	
4 Benchmark	
Product quantities per day, week or month are manuf Minimum / planned inventory in finished parts store Customer / Company / Supplier interface, synchronis Internal supply synchronised and driven by MRP	factured in accordance with customer schedule and build rate ed as 'Just in Time' Zero scrap/wastage allowance
3. Contender	
Some overproduction observed but generally in line v Scrap/wastage allowances built into production batch The external supply chain is being developed to be 'J Internal supply synchronised and driven by MRP	with customer requirement and build rate les, but being gradually reduced lust in Time' Team involvement in improvement plans
2. Performer	
Overproduction observed Some excess product in finished parts store and as V Majority of production not synchronised with custome	Scrap/wastage allowances built into production plan VIP Improvement plans exist at managerial level er schedule
1. Developer Waste due to overproduction understood, and identifi Improvement plans being developed	ied
0. Learner Excessive products are produced to cover for scrap/v adopted	vastage, future requirements, and a "just in case" philosophy
Look For : Alignment of Customer order against actual production Products made in advance of requirements Products in finished goods store Built in scrap/wastage allowances	Communication of Customer schedule/build rate Re-order mechanisms (customer & supplier) Redundant stock EBQ / EOQ methodology

Kanban	
How the work area employs the techniques of Kanban.	
Expectations	
4. Benchmark Supply and demand synchronised via use of appropriate Kanban techn Kanban applied to all areas within the supply chain (internal and extern Customer and supplier agreements in place Extensive use of Kanban techniques on non-product inventories (e.g. of All in work area trained in Kanban techniques	niques nal) consumables)
3. Contender Kanban applied to most areas within the supply chain (internal and ext Customer and lower tier supplier agreements being prepared Some use of mechanism on non-product inventories (e.g., consumable Scope for further opportunities recognised, plan exists for additional de	ernal) es) eployment
<ol> <li>Performer</li> <li>Some use of Kanban techniques</li> <li>Scope for further opportunities recognised, plan for additional deploym</li> </ol>	ent being prepared
1. Developer Benefits of Kanban understood, application being planned	
0. Learner No / little use of Kanban mechanisms	
Look For : Visible Kanban triggers (footprint, max/min, 2 bin, Kanban card, supermarket system) Production & Non-production applications (e.g. fixings / fastenings, consumables) Lead-time reduction Training Material	Customer and Supplier agreements Re-order mechanisms Use of Vendor Managed Inventory

### **Management Commitment**

Management Commitment is focused on understanding the managerial processes which 'enable' a Lean approach within an organisation and what 'results' are being achieved as a consequence.

Managers may be 'committed' to a Lean philosophy but this assessment tests the integrity of that commitment and its maturity by addressing:-

- the structure and soundness of the approach
- how well it is integrated in the business over time
- it's deployment across all areas
- how the approach and deployment are reviewed for effectiveness
- what results are being achieved to demonstrate that effectiveness

This ensures that Lean implementation is embedded and forms part of the organisation's Continuous Sustainable Improvement Plan (CSIP).

There are 2 methods to conducting a Management Commitment assessment based on the size of the organisation and/or their familiarity with Lean techniques. Also defined is the method to be used for SC21 Recognition.

#### Method 1

The assessment 'toolset' for Management Commitment is based on the RADAR concept associated with the EFQM Business Excellence Model. See pages 25-31.

The RADAR system is EFQM copyright. A copy of the EFQM Excellence Model **ISBN: 978-90-5236-670-8** should be given to or bought by participating companies.

#### Method 2

This method uses a questionnaire approach and supporting workshop which is facilitated by the Manufacturing Excellence Lead Practitioner.

The Questionnaire comprises 23 questions which address the elements of the RADAR concept - 6 questions on Approach, 6 on Deployment, 5 on Assessment and Review and 6 on Results. See Pages 32-34.

<u>Note:</u> In Methods 1 & 2, **Results** are those achieved from implementation of a Lean philosophy and not those of the overall business.

#### **Guidance for Management Commitment assessment**

- An SME (Small to Medium sized Enterprise) or an organisation that has recently started with 'lean' implementation should use the Questionnaire based approach <u>Method 2</u>. This is acceptable for recognition at Bronze SC21 award.
- A larger organisation or one which has implemented a 'lean' approach and would benefit from a detailed evaluation would be <u>encouraged</u> to deploy a Management Commitment assessment using <u>Method 1</u>.
- All organisations to be recognised for Silver SC21 award must deploy a Management Commitment assessment using <u>Method 1</u>.
- All organisations to be recognised for Gold SC21 award must deploy a Management Commitment assessment using <u>Method 1</u>.
- Gold and Silver SC21 award winners will be role models for Excellence, accordingly an in depth assessment against the RADAR<sup>®</sup> concept associated with the EFQM Business Excellence Model is required to validate this level of recognition.

Manufacturing Excellence		
Management Commitment		
How the organisation implements a Lean philosophy		
Enablers - Approach :	Response :	
<ul> <li>Sound</li> <li>How does the organisation ensure it has a soundly based approach to implementing Lean?</li> <li>Consider: <ul> <li>Best Practice Lean approaches tailored to the organisation as necessary.</li> <li>Links to company strategy / business plan</li> <li>Approach has clear rationale</li> <li>Recognised methodologies</li> <li>Developed procedures</li> <li>Approach focuses on stakeholder needs</li> <li>Cross functional management commitment</li> <li>Training programmes</li> <li>Includes design improvement methodologies</li> <li>Evidence of senior sponsor</li> <li>Allocated budget</li> </ul> </li> </ul>		
<b>Integrated</b> To what extent is Lean Operations an integral part of the business?		
<ul> <li>Consider:</li> <li>Is the approach routinely applied (a normal and fundamental part of the business operation)</li> <li>Approach supports policy &amp; strategy</li> <li>Approach is linked to other approaches as appropriate (cross – functional links)</li> <li>Involvement of supply chain &amp; customer</li> <li>Link to business plan</li> <li>Strategy aligned to company processes</li> <li>Strategy aligned to company systems</li> <li>Local ownership</li> <li>Prevention based</li> </ul>		
S – Strength AFI – Area for Improvement C – Comment	Overall Score for Approach / 100	

Manufacturing Excellence						
Management Commitment						
How the organisation implements a Lean philosophy						
Enablers - Deployment:	Response :					
<ul> <li>Implemented To what extent has the organisation implemented its approach to Lean?</li> <li>Consider: <ul> <li>Has it been implemented rigorously and to its full potential to the areas which it is appropriate</li> <li>Has it been implemented equally to all levels of employees as appropriate</li> <li>To all product and service areas as appropriate</li> <li>Involvement of customers &amp; suppliers</li> <li>Appropriate people involvement at all levels of the organisation.</li> </ul> </li> </ul>						
<ul> <li>Structured</li> <li>Has the execution been structured to enable flexibility and organisational agility?</li> <li>Consider: <ul> <li>Project planning mechanisms (should be a planned series of events rather than a series of ad-hoc actions)</li> <li>A recognised 'system' for deployment e.g. 5 steps to lean</li> <li>Steering group or project implementation team</li> <li>SMART objectives for senior management team</li> <li>Criteria for prioritised deployment (inc. selection of pilot areas)</li> <li>Process for resolving interface issues</li> <li>Communication strategy</li> <li>Extensive personnel coverage (training / involvement)</li> </ul> </li> </ul>						
S – Strength AFI – Area for Improvement C – Comment	Overall Score for Deployment / 100					

Manufacturing Excellence							
Management Commitment							
How the organisation implements a Lean philosophy							
Enablers - Assessment & Review:		Response :					
Measurement How does the organisation measure the effectiveness the approach and deployment of Lean? Consider: <ul> <li>Measures used (operational, financial and stake holder perceptions)</li> <li>Regular measurement / review process with the intention of enhancing the approach and deployment</li> <li>Appropriate personnel involved</li> </ul> <li>Learning and Creativity How is learning relating to Lean used to identify best practice and improvement opportunities? How is creativity used to generate new or changed approaches? Consider:</li>							
<ul> <li>Consider:</li> <li>Best Practice visits</li> <li>Benchmarking</li> <li>Educational programmes e.g. NVQ's in Improvement Techniques</li> <li>Kaizen workshops</li> <li>Good practice guides / databases</li> <li>Lean Seminars</li> <li>Lean Master class</li> <li>Customer / supplier inputs</li> <li>Individual and group learning activities</li> </ul>	-						
<ul> <li>Improvement and Innovation</li> <li>How is the output from measurement and learning and creativity activities analysed and used to identify, prioritise, plan &amp; implement improvements?</li> <li>Consider: <ul> <li>Prioritisation &amp; analysis process e.g. cost versus benefit, high impact/low impact, etc.</li> <li>Process for maintaining improvements</li> <li>Subsequent improvements to the approach and deployment e.g.</li> <li>clearer vision and strategy</li> <li>better stakeholder engagement</li> <li>improved communications</li> <li>further operational &amp; financial improvements</li> <li>improved stakeholder perceptions</li> <li>refined improvement plans</li> <li>Lean applied to 'new' areas such as office environments, finance department, etc</li> </ul> </li> </ul>							
S – Strength AFI – Area for Improvement C – Comment	Ove	rall Score Ass. & Review / 100	Overall Score for Enablers	/ 100			

RADAR	for	Enab	lers

Approaches	Guidance	Una demo	able onstr	to ate	Limited ability to A demonstrate dem			Able to demonstrate			Fully able to demonstrate				Re (	cogn Globa Mo	ised as I Role del	
Sound	Found The approaches have a clear rationale, based on the relevant stakeholder needs and are process based.																	
Integrated	The approaches support strategy and are linked to other relevant approaches.																	
Deployment	Guidance	Una demo	able onstr	to ate	Lim de	ited ab monst	ility to rate	A dem	ble t ionst	o trate	0	F d	<sup>-</sup> ully a emo	able f nstra	o te	Re (	cogn Globa Mo	ised as I Role del
Implemented	The approaches are implemented in relevant areas, in a timely manner.																	
Structured	The execution is structured and enables flexibility and organisational agility.																	
Assessment & Refinement	Guidance	Una demo	able onstr	to ate	Lim de	ited ab monst	ility to rate	A dem	ble t ionst	o trate	0	F di	<sup>-</sup> ully a emo	able f nstra	o te	Re (	cogn Globa Mo	ised as I Role del
Measurement	The effectiveness & efficiency of the approaches and their deployment are appropriately measured.																	
Learning & Creativity	Learning & creativity is used to generate opportunities for improvement or innovation.																	
Improvement & Innovation	Outputs from measurement, learning & creativity are used to evaluate, prioritise & implement improvements & innovations.																	
Scale	Total	C	)%			25%			50%			75%					100	)%
Overall Score	Overall Enablers Score																	

RADAR fo	or Results
----------	------------

Relevance & Usability	Guidance	Una demo	able t onstr	o ate	Lim de	ited abi emonst	lity to rate	to Able to demonstrate					Fully able to demonstrate			) e	Re	cogn Globa Mo	ised as Role del	
Scope & Relevance	A coherent set of results, including key results, are identified that demonstrate the performance of the organisation in terms of its strategy, objectives and the needs and expectations of the relevant stakeholders.																			
Integrity	Results are timely, reliable and accurate.																			
Segmentation	Results are appropriately segmented to provide meaningful insights.																			
Performance	Guidance	Una demo	able t onstr	o ate	Lim de	ited abi emonst	lity to rate	de	Ab emo	le to Instr	ate		Fully demo	/ ab ons	le to trate	) e	Re (	cogn Bloba Mo	ised as Role del	
Trends	Positive trends or sustained good performance over at least 3 years.																			
Targets	Relevant targets are set and consistently achieved for the key results, in line with the strategic goals.																			
Comparisons	Relevant external comparisons are made and are favourable for the key results, in line with the strategic goals.																			
Confidence	There is confidence that performance levels will be sustained into the future, based on established cause & effect relationships.																			
Scale	Total		0%			25%		50%					75%				100%			
Overall Score	Overall Enablers Score																			

Manufacturing Excellence							
Management Commitment							
What the organisation is achieving through a Lean philosophy							
Results - Relevance and Usability	Response :						
Scope and Relevance The scope of results presented is appropriate to monitor the effectiveness of Lean operations. Consider: • Results address relevant areas - Manufacturing - Non-manufacturing - Supply chain - Customers							
Integrity Results are timely, reliable and accurate.							
Segmentation Results are appropriately segmented. Consider: • Business groups • Products • Customers							
S – Strength AFI – Area for Improvement C – Comment	Overall Score for Relevance and Usability / 100						

Manufacturing Excellence							
Management Commitment							
What the organisation is achieving through a Lean philo	What the organisation is achieving through a Lean philosophy						
Results - Performance	Response :						
Trends         Trends are positive and/or there is sustained good performance.         Consider:         • Financial, operational and stakeholder perception measures: <ul> <li>Inventory reductions</li> <li>Stock turns</li> <li>Cost reduction</li> <li>Lead-time reduction</li> <li>Productivity measures</li> <li>Delivery performance</li> <li>Quality performance</li> <li>Increased floor space</li> <li>Process capability improvements</li> <li>Reduced Set up Times</li> <li>Adherence to standard times</li> <li>Employee involvement / satisfaction</li> <li>Customer and supplier benefits</li> </ul>							
TargetsWhat progress has been made against targets?Consider:• All trends should have a target• Appropriate internal targets versus achievements• Rationale for targets (appropriateness)• Stretched targets• Link to business plan• Management reviews conducted against targets.							
Comparisons What comparisons are made with external organisations? Consider: • Comparisons with industry performance • Comparisons with acknowledged best in class • Comparisons of other sites (if applicable) Confidence There is confidence that performance levels will be sustained into the future, based on established cause & effect relationships. Consider:							
<ul> <li>Clear links to the Enablers.</li> <li>Enabling effect is visible for % of results.</li> <li>Evidence that performance will be sustained.</li> </ul>							
S – Strength AFI – Area for Improvement C – Comment	Overall Score for Performance / 100	Overall Score For Results	/ 100				
<b>Overall Score for Management Con</b>	nmitment		/ 200				

#### Enablers + Results

### **METHOD 2 – Questionnaire Approach**

This spreadsheet is given to the company involved so they can prepare for the Management Commitment workshop.

		Question	Comments/Notes
	1	What does 'Lean' mean to your Company?	
	2	How does 'Lean' link to your company business plan?	
OACH	3	Why are you implementing 'Lean'?	
APPR	4	What is your approach/methodology to 'Lean'?	
	5	How are the senior management team involved?	
	6	How do you embed 'Lean' in the company culture?	
	7	How have you deployed your Lean methodologies in your business?	
	8	What processes and procedures have been defined for deployment?	
DYMENT	9	How do you involve, train and communicate to staff?	
DEPLO	10	How have you prioritised implementation?	
	11	What has been the scope of implementation?	
	12	How have you involved your customers and suppliers?	
F	13	How do you assess and review your progress so far?	
EFINEMEN'	14	What measures do you use to review how effective your approach and deployment has been?	
MENT & RE	15	How do you continually learn about 'Lean' and adopt best practice?	
ASSESSI	16	What changes to your approach/deployment have been made as a result of reviewing progress to date and capturing best practice?	
	17	How do you maintain these improvements to your approach and deployment?	
	18	What improvements have you made as a result of 'Lean'?	
	19	Do you have any trends of improvement, what do they look like?	
sults	20	What were the targets, are they appropriate and have you achieved them?	
RES	21	How do your 'Lean' improvements compare with Industry benchmarks?	
	22	Give examples where improved results (trends, targets and comparisons) have been caused by your approach and deployment of Lean?	
	23	What is the scope of your results e.g. internally, with customers and with suppliers?	

#### **METHOD 2 – Questionnaire Approach**

The spreadsheet below is used by the Practitioner as a checklist to prompt discussion and to position the organisation against each question. It contains some 'look fors' as examples of approach or deployment. Note: The Practitioner may decide to give this copy to the organisation as supplementary information for the workshop. The scoring, however, must be agreed with the Practitioner.

		Question	Look for	Е	D	с	в	Α
	1	What does 'Lean' mean to your Company?	Recognition of best practice approaches tailored to the Company's size, products and processes.					
	2	How does 'Lean' link to your company business plan?	Endorsement of 'Lean' in vision, mission or core values of the company					
DACH	3	Why are you implementing 'Lean'?	To improve operational performance and customer satisfaction. To create a standard for all employees to follow.					
APPRO	4	What is your approach/methodology to 'Lean'?	Lean implementation plan with names and dates. 5 steps to lean. Tasks or objectives in PDR or Appraisal.					
	5	How are the senior management team involved?	MD or Operations Director, steering group must involve other functions (QA, Procurement, ???					
	6	How do you embed 'Lean' in the company     How do you embed 'Lean' in the company     Si in place and owned by all team members, 7     Wastes being addressed.						
	7	How have you deployed your Lean methodologies in your business?	Elements of the implementation plan being carried out					
	8	What processes and procedures have been defined for deployment?	A toolset of tools and techniques held under the BMS. 5S checklists, value stream maps,					
YMENT	9	How do you involve, train and communicate to staff?	Training Plan - Resources as time in training, use of Consultants, external training courses, materials used.					
DEPLO	10	How have you prioritised implementation?	Pilot cell and then cascaded to other cells					
	11	What has been the scope of implementation?	Percentage across all Products, Cells or Manufacturing Processes.					
	12	How have you involved your customers and suppliers?	Joint training courses, SC21 assessments by Customers or Training Providers.					
Ę	13	How do you assess and review your progress so far?	s and review your progress so Agenda item in management reviews, updates to Implementation Plan					
FINEMEN	14	What measures do you use to review how effective your approach and deployment has been?	Delivery & Quality by Customer, Product and overall. Inventory reductions, lead time reduction, warranty costs, Cycle time +					
INT & RE	15	How do you continually learn about 'Lean' and adopt best practice?	Kaizen events, benchmarking, team meetings, contact with customers and suppliers.					
SESSME	16	What changes to your approach/deployment have been made as a result of reviewing progress to date and capturing best practice?	If none - OK but is plan on track and regularly reviewed and updated?					
AS	17	How do you maintain these improvements to your approach and deployment?						
	18	What improvements have you made as a result of 'Lean'?	Cost benefit analysis, impact assessment					
	19	Do you have any trends of improvement, what do they look like?	whave any trends of improvement, what do Over 3 years - improved or sustained performance.					
JLTS	20	What were the targets, are they appropriate and have you achieved them?	Each trend should have a target. Are targets appropriate? Achieved? Reviewed?					
RESI	21	How do your 'Lean' improvements compare with Industry benchmarks?	Benchmarking					
	22	Give examples where improved results (trends, targets and comparisons) have been caused by your approach and deployment of Lean?	Cause in Results scoring. Positive results from what has been put in place from the Plan.					
	23	What is the scope of your results e.g. internally, with customers and with suppliers?	Range of results should be available					
			Number of ticks Weighting	0	0 10	0 25	0 50	0 75
			Scores	0	0	0	0	0
-			Total	0				
			% achievement = Total/2300	0				
		Managemer	nt Commitment Score (% achievement x 650)	0				

### **METHOD 2 – Questionnaire Approach**

	Score	Achievement	Attributes
A	75	Approaches fully deployed and embedded	An outstanding approach that can be considered to be best practice Is clearly demonstrated as part of the improvement culture Has been in place across the organisation for greater than 3 years Regular proactive reviews of the approach and its deployment
В	50	Approaches deployed in most areas	Evidence that this approach is well addressed Has been in place for a minimum of 2 years Perhaps not deployed in all areas to the same extent Periodic reviews and actions taken for further enhancement
с	25	Approaches partially deployed	Evidence that this approach is addressed Lean improvement activity in place for a minimum of 12 months Random reviews with specific actions for improvement
D	10	Ad hoc Approaches	An approach is being prepared Some evidence of improvement activity
E	0	No Approach	No real activity but some good ideas which can be developed and progressed

#### The scoring methodology is as below.

	RESULTS								
	Score	Achievement	Attributes						
		Results compare	Results presented and relevant for all key areas for greater than 3 years						
	75	favourably against	Performance of results clearly demonstrate the benefits of lean implementation.						
Ŷ	15	best-in-class	Targets achieved for all key results						
		organisations	Results compare favourably with best-in-class organisations						
в	50	Results performing	Key results are identified and measured for a minimum of 2 years						
			Positive trends or sustained performance on most key results						
		well against largets	Achievement of targets and favourable comparisons for most key results						
		Data collected for	Key results are identified and measured for a minimum of 12 months						
С	25	most of the relevant	Positive trends on some key results						
		areas	Targets achieved and comparisons for some key results						
п	10	Data collected for	Some results are identified and measured						
5	10	some areas	Trends, targets and comparisons are being established						
Е	0	No data collected	No real activity but some good ideas which can be developed and progressed						

A = Benchmark; B = Contender; C = Performer; D = Developer; E = Learner

An embedded excel file of the above 3 spreadsheets and a worked example is given below - double click to open.



Management Commitment Det Ex