

Introduction and Instructions

Version 4.0, Issued 5/2014

Foreword

Supply Chain Management (SCM) is the process of managing the procurement, movement, and storage of materials, parts, and finished goods (and the related information flows) throughout the organisation through the timely and cost-effective fulfilment of orders.

Global Materials Management Operations Guidelines/Logistics Evaluation (MMOG/LE) is a self-assessment and continuous improvement tool that provides the means to enhance materials management efficiency and accuracy while reducing costs from errors and waste. MMOG/LE is a global standard of industry best practice for supply chain management processes. Its purpose is to establish a common definition of supply chain management best practice in order to facilitate efficient and effective physical and information flows between internal and external partners.

The MMOG/LE assessment process requires the support and involvement of top management. History has shown that the best results of using MMOG/LE are achieved where executive management is actively involved and continuous improvement is a discipline that is rooted in the culture of the organisation.

The tool can be used at all levels of the supply chain by both supplier and customer throughout the entire product life cycle, including early product development and pre-production phases, and the post-production aftermarket/service phases. While MMOG/LE is primarily aimed at organisations in the automotive sector, the benefits that can be gained apply across many other industries. AIAG and Odette have noted growing interest in, and use of, MMOG/LE in other sectors including medical, construction, aerospace, chemical, electronics, industrial, and retail.

The document is the result of a collaborative effort among work groups within Odette International Limited and the Automotive Industry Action Group (AIAG) to develop a single SCM evaluation that can be used globally. MMOG/LE was derived from the Odette Logistics Evaluation (OLE) and AIAG's Materials Management Operations Guideline (MMOG), which were both originally published in 1999. Organisations interested in participating in the AIAG/Odette MMOG/LE work group should contact AIAG at www.aiag.org or Odette at www.odette.org.

1) MMOG/LE Document Revisions

Odette and AIAG revise MMOG/LE on a regular basis to ensure that the assessment tool reflects the needs of the industry for supply chain processes. This document contains revisions that were completed in March 2014 following extensive discussions in response to comments and proposals from existing users.

2) IATF16949 Alignment

IATF 16949 is the technical specification that defines the quality management system requirements for the design and development, production, and, when relevant, installation and service of automotive-related products. The goal of IATF16949 is the development of a quality management system that provides for continual improvement, emphasising defect prevention and the reduction of variation and waste in the supply chain.

The focus of IATF16949 is on the quality of the product, whereas MMOG/LE is a guideline for the efficient and timely delivery of those same products.

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MMOG/LE adopts the same "process approach" as IATF16949 for developing, implementing, and improving the effectiveness of SCM processes in order to meet customer requirements. However, the approach from which the processes are examined must be different. MMOG/LE must be reviewed from a SCM perspective and IATF16949 from a quality perspective. Consequently, the MMOG/LE Assessment should be championed by the Materials/Supply Chain Manager while leveraging the expertise of quality systems auditors.

A key advantage of using the same "process approach" as IATF16949 is the ongoing control that it provides over the linkage between the individual processes within the system of processes as well as over their combination and interaction.

When used for SCM processes, such an approach emphasises the importance of:

- Y understanding and meeting requirements
- Y considering processes in terms of added value
- Y obtaining results of process performance and effectiveness
- Y continual improvement of processes based on objective measurement
- Y visual management through the use of charts and graphs

3) MMOG/LE Applications

MMOG/LE comprises recommended business practices and is intended to establish a common definition of the SCM process both within the organisation and with trading partners. Automotive OEMs and suppliers can use this assessment for many purposes, including:

- Y Assessing internal sites and external suppliers
- Y Benchmarking current state / best practices
- Y Driving continual improvement
- Y Increasing customer satisfaction
- Y Improving sub-supplier performance

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1) The Purpose and Objectives of MMOG/LE

Customer demands for shorter lead times and reliable delivery have created a need for a faster, more flexible, and more efficient flow of information and products throughout all tiers of the supply chain. Logistics play an increasingly significant role in the competitive environment and only through continual improvement can an organisation ensure lower costs and increased customer satisfaction. It is essential that SCM processes are controlled and monitored to ensure internal and external customer expectations are met and to drive continual improvement through the supply chain.

The purpose of MMOG/LE is to provide an assessment tool that enables a comprehensive evaluation of SCM performance and capability. MMOG/LE can be used by every partner in the supply chain for self-assessment or can be used between business partners as an audit tool for supplier selection and evaluation.

MMOG/LE aims to achieve the following objectives:

- Y Produce a common SCM evaluation that can be used by all business partners, both internal and external.
- Y Establish the components of an SCM system for suppliers of goods and services within the automotive industry in order to:
 - Drive continual improvement within the organisation
 - Improve delivery performance within the supply base
- Y Enable SCM continual improvement plans to be developed and prioritised, thus enabling time to be spent on those activities that offer the greatest benefit.
- Y Provide a basis for benchmarking activities and identify 'Best Practice Criteria' of SCM processes for driving continual improvement plans.

MMOG/LE measures an organisation's SCM processes against Best Practice including such aspects as sustainability, corporate responsibility, and environmental protection. As such, the assessment process can be quite invasive requiring some in-depth investigation by the assessor(s) in order to establish evidence of compliance. It is recognised that the resources required to undertake this depth of review can generally be absorbed within a relatively large organisation but may be intimidating and time-consuming for a smaller organisation. However, with the introduction of MMOG/LE version 4, this issue has been addressed by the introduction of a Basic version (profile) in addition to the Full assessment.

2) Global MMOG/LE Full and Basic Assessments

In the past, MMOG/LE consisted of a single assessment. With the release of Version 4, MMOG/LE now consists of two assessments - a **Full** assessment and a **Basic** assessment. The Full assessment now contains 197 criteria. The Basic version contains 106 of the 197 criteria used in the Full version and has been developed specifically for use within the lower tiers of the supply chain while retaining the core fundamental principles of the Full version. It is expected that vehicle manufacturers will use the Full version and the lower tiers will use the Basic version. **However, it is imperative that an organisation**

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verifies with its customer whether the Full or Basic assessment is to be used.

Why was the Basic version created?

MMOG/LE was originally created as a best practice assessment toolkit for the vehicle manufacturers. Over time, some large, multi-national, Tier 1 organisations also started to adopt MMOG/LE with Tier 2 suppliers. General feedback from the Tier 1 community is that the full MMOG/LE is sometimes difficult to accomplish for suppliers in the lower tiers. It was recognised that for the lower tier suppliers there is a need for an entry-level version while still retaining the focus on the core fundamentals of best practice. The Basic version has been developed to allow assessments to be completed by the lower tier suppliers and provide a meaningful roadmap of continuous improvement opportunities. The Basic version also provides a pathway for organisations to progressively migrate to the Full MMOG/LE version when competence permits, and hence to world-class best practice.

What are the goals of the MMOG/LE Basic profile?

- Enable lower tier suppliers to assess their processes and techniques in comparison with automotive supply chain best practice
- Provide a tool to assist in the development of strong continuous improvement plans
- Enable a targeted assessment in critical areas
- Maintain the core fundamental elements of the MMOG/LE; while the number of criteria is reduced, all F3 criteria have been retained and all chapters are covered in the Basic version.
- Provide a starting point towards eventually completing the Full MMOG/LE assessment

How should the MMOG/LE Basic profile be used?

Typically the customer will decide whether they want the supplier to use the Full MMOG/LE or the Basic profile. Where an assessment is being used between business partners, it is imperative that the customer defines the extent and conditions of the assessment process. It is anticipated that OEMs will continue to require the Full assessment. However, it is expected that lower tier suppliers will be encouraged to use the Basic version.

The Basic version is fully integrated within the MMOG.np tool, which includes the following features that enable users to switch between the Full and Basic assessments:

- Individual Scoring Tabs for the Full and Basic assessment results
- Ability to view a Full MMOG/LE score and classification using the organisation's current Basic assessment results
- Radar Charts display either the Full or Basic results, or both results can be displayed at the same time if required
- The Progression Chart displays either the Full or Basic depending on the setting selected.

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How does the scoring and classification system work?

The scoring systems for both the Full and Basic versions are exactly the same. However, the classifications differ; this is explained in detail in the "Classification" section later in this document.

Using Full or Basic Assessment as a "Diagnostic Tool"

The objective of MMOG/LE is to drive continuous improvement throughout the supply chain. However, it is also recommended that MMOG/LE be used to perform assessments where there is a need to establish a quick diagnosis of an organisation's supply chain operation.

Due to time constraints or the urgency of a situation, using the Full assessment may not be the best immediate approach to identify the issues. However, an assessor may find it useful and efficient to use the Basic assessment to establish what immediate corrective action should be taken.

Additionally, whether the organisation is using the Full or Basic assessment, MMOG/LE can be used to target specific supply chain processes that need immediate corrective action. A skilled MMOG/LE assessor will be able to relate critical issues being experienced in the organisation with specific MMOG/LE chapters and extract the relevant criteria to use in a diagnostic review.

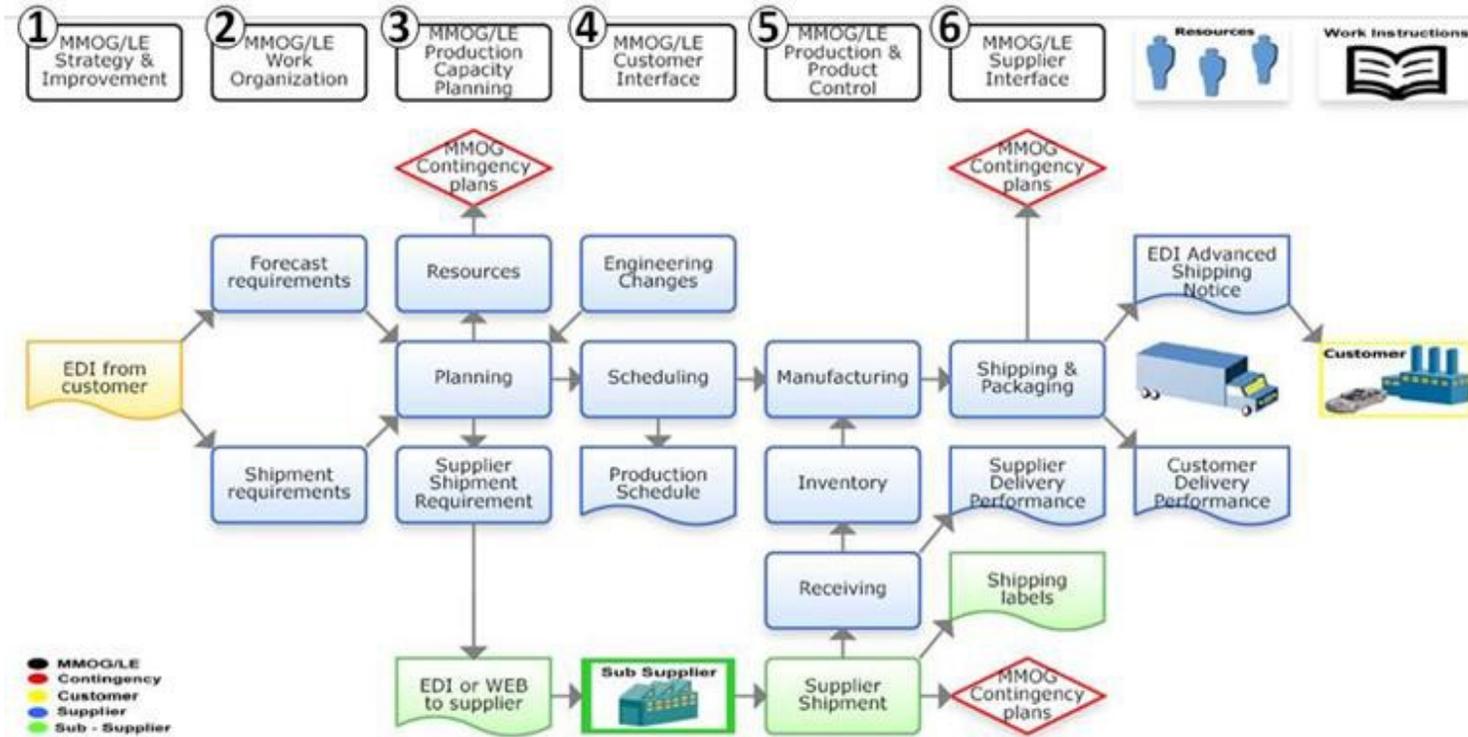
Experience has shown that this process enables an organisation to establish urgent corrective action plans and therefore understand the benefits of using MMOG/LE as a continuous improvement tool.

3) Explanation of the Assessment

The MMOG/LE SCM process model below provides a pictorial overview of the chapters and processes covered within MMOG/LE. While MMOG/LE focuses on the materials activities within the organisation, the following model illustrates that these activities are not performed in isolation. The organisation is in constant communication with its supply chain partners. The coloured areas relate to the various MMOG/LE processes, as indicated in the legend. This model can be helpful in explaining the scope of the assessment process to executive management and other departments that will be involved in completing the assessment.

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The MMOG/LE assessment comprises the following chapters and sub-chapters:

CHAPTER ONE - STRATEGY AND IMPROVEMENT

- 1.1 Vision and Strategy
- 1.2 Objectives
- 1.3 Measurement, Analysis, and Action Plans
- 1.4 Continual Improvement
- 1.5 Supply Chain Development

CHAPTER TWO - WORK ORGANISATION

- 2.1 Organisational Processes
- 2.2 Operating Procedures and Work Instructions
- 2.3 Resource Planning
- 2.4 Work Environment and Human Resources
- 2.5 Risk Assessment and Management

CHAPTER THREE – CAPACITY AND PRODUCTION PLANNING

- 3.1 Product Realisation
- 3.2 Capacity Planning
- 3.3 Production Planning
- 3.4 Systems Integration

CHAPTER FOUR – CUSTOMER INTERFACE

- 4.1 Communication
- 4.2 Packaging and Labeling
- 4.3 Shipping
- 4.4 Transportation
- 4.5 Customer Satisfaction and Feedback

CHAPTER FIVE – PRODUCTION AND PRODUCT CONTROL

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- 5.1 Material Identification
- 5.2 Inventory
- 5.3 Engineering Change Control
- 5.4 Traceability

CHAPTER SIX – SUPPLIER INTERFACE

- 6.1 Supplier Selection
- 6.2 Supply Chain Management Agreement
- 6.3 Communication
- 6.4 Packaging and Labeling
- 6.5 Transportation
- 6.6 Material Receipt
- 6.7 Supplier Assessment

4) Explanation of Criteria Weighting and Scoring

All criteria within the assessment are important to the overall development of SCM performance and capability. However, certain key criteria are regarded as being fundamental SCM processes and hence should be recognised as having a greater level of importance. Conversely, some criteria may be regarded as an enhancement of a basic SCM process, which go beyond normal expectations and/or are undertaken by organisations to increase their competitiveness. A weighted scoring system has been incorporated within MMOG/LE to reflect these different levels of importance. The weighting provides a means of grading the criteria by level of importance so that the organisation can identify and focus on the priority issues to ensure compliance with their business partners’ requirements.

Three levels of criteria weighting are used and have been given the following definitions, color coding, and associated scoring points as shown in the table below in ascending level of importance:

Weighting:	F1	= 1 pt	A Supply Chain Management (SCM) process that demonstrates an additional level of control of operational processes, contributing to the organization's overall competitiveness. Complying with F1 criteria contributes to the organization's long-term sustainability and/or competitiveness.
	F2	= 2 pts	A Supply Chain Management (SCM) process that demonstrates control of operational processes and has significant importance to the efficiency and effectiveness of the organization's operations. If an F2 criterion is not met, the organization's performance and/or customer satisfaction may be seriously affected.
	F3	= 3 pts	A key Supply Chain Management (SCM) process that is a fundamental requirement of the organization's operations. If an F3 criterion is not met, there is a high risk of interruption and/or incurring increased costs to the organization's and/or customer's operations.

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The same scoring system is used in both the Full and Basic versions, i.e. a compliant F3 criterion scores 3 points, a compliant F2 criterion scores 2 points, and a compliant F1 criterion scores 1 point.

5) Classification

A percentage score is calculated based on the total score and the maximum available score in each version. However, as there are significantly fewer criteria in the Basic version, the resulting classification cannot be directly compared with the Full version. Therefore, the Full version has classification categories of A, B, and C and the Basic version has different classification categories, namely: ZA, ZB, and ZC.

The tool allows an organisation to see their score and classification for both versions. The Full and the Basic have separate Scoring Summary worksheets. However, as the results are not directly comparable, a **ZA** classification in the Basic version will not necessarily be an **A** classification in the Full version. For example, an organisation might achieve a ZA for the Basic while only scoring a C for the Full version. We strongly recommend that organisations achieving a ZA or ZB classification in the Basic version should then take the time to continue moving forward with improvement plans by performing the Full assessment.

The definitions of each Classification for the Full and Basic versions are shown in the tables below:

Full version: Classification

Classifications:	A	<ol style="list-style-type: none"> 1) Compliance to all F3 criteria, and 2) Non-compliance to fewer than 10 F2 criteria, and 3) A total score of 90% or higher 	The organization is compliant in all key criteria and can demonstrate that the supply chain management processes in use at the facility are best practice. Annual assessments are carried out with the goal of ensuring sustainable and best practice processes. In support of continual improvement, the development of an action plan should be considered in order to eliminate any remaining unmet criteria.
	B	<ol style="list-style-type: none"> 1) Compliance to all F3 criteria, and 2) Non-compliance of 10 to 15 F2 criteria, and 3) A total score greater than or equal to 75% and less than 90% 	Although most of the fundamentals of supply chain management are demonstrated, the organization is deficient in several areas that compromises the efficiency of internal performance and may impact its ability to support the needs of the customer. An action plan should be developed and implemented in a timeframe that meets the needs of the business and its customer(s).
	C	<ol style="list-style-type: none"> 1) Non-compliance to any F3 criterion, or 2) Non-compliance to 16 or more F2 criteria, or 3) A total score less than 75% 	The organization is deficient in one or more key areas of supply chain management. This situation creates a high risk of disruption to customers and demonstrates a lack of efficiency and control of internal processes within the existing supply chain strategy. Management commitment will be required to create, prioritize and implement action plans in a timely manner to avoid serious or prolonged issues with the customer.

Basic version: Classification

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Classifications:	ZA	1) Compliance to all F3 criteria, and 2) Non-compliance to fewer than 10 F2 criteria, and 3) Total score not considered in classification	The fundamentals of supply chain management are in place and the organization demonstrates evidence of process controls and continuous improvements efforts. However, the full version of the MMOG/LE Assessment would have to be completed in order to fully understand if industry best practices have been met.
	ZB	1) Compliance to all F3 criteria, and 2) Non-compliance of 10 to 15 F2 criteria, and 3) Total score not considered in classification	Although most of the fundamentals of supply chain management are demonstrated, the organization is deficient in several areas that compromises the efficiency of internal performance and may impact its ability to support the needs of the customer. An action plan should be developed and implemented in a timeframe that meets the needs of the business and its customer(s). To fully understand the level of risk and opportunities for improvement, it is recommended that the organization completes the full version of the assessment.
	ZC	1) Non-compliance to any F3 criterion, or 2) Non-compliance to 16 or more F2 criteria, or 3) Total score not considered in classification	The organization is deficient in one or more key areas of supply chain management. This situation creates a high risk of disruption to customers and demonstrates a lack of efficiency and control of internal processes within the existing supply chain strategy. Management commitment will be required to create, prioritize and implement action plans in a timely manner to avoid serious or prolonged issues with the customer.

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Y Education and Training

It is imperative that assessors have a clear understanding of the assessment process before starting the evaluation. AIAG and Odette offer MMOG/LE training on a global basis - details are available at www.aiag.org or www.odette.org/mmog/information

Additionally, the user should contact the customer to check whether there is any training available that covers customer-specific requirements.

Y Assessment Responsibility

MMOG/LE has been developed so that an assessment can be undertaken on several bases, including a self-assessment, a verified assessment by a customer, or a verified assessment by a customer- approved third party assessor. It is recommended that an assessment is carried out on an annual basis or as required by the customer.

In some larger organisations it may be necessary to use several assessors to conduct a full evaluation. In these circumstances it is important to record the name of each assessor and the relevant chapter / sub- chapters they have audited.

The customer should be consulted on how the assessment should be completed when multiple facilities (e.g. manufacturing, shipping, warehousing) are involved in the assessment process. The organisation being assessed is responsible for coordinating the collection and compilation of assessment information from other facilities.

Y What resources are needed?

The MMOG/LE assessment process requires the support and involvement of top management. History has shown that the best results are achieved where executive management is actively involved and continuous improvement is a discipline that is rooted in the culture of the organisation. When MMOG/LE is required by the customer, executive management involvement is usually mandatory.

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It is also recommended to obtain feedback from supply chain partners to validate the effectiveness of processes (e.g. EDI/Web, supply chain agreements) for relevant MMOG/LE criteria. The total time required to complete the assessment will vary depending on the size and complexity of the organisation. In addition, sufficient time and resources should be allowed to prepare and implement the actions. All activities related to MMOG/LE should be coordinated and supervised by one person. This is particularly important in a large, multi-site organisation where it is advisable to appoint an MMOG/LE Champion at the corporate level to ensure that a consistent assessment approach is adopted across all facilities. Additionally, the corporate Champion can help to ensure that lower performing plants can leverage best practices from higher performing plants. The recommended people/departments who will be required to be involved in the assessment process will include, but not be limited to:

Top Management MMOG/LE Champion SCM
Manager

Purchasing/Procurement Manager

Production Managers Administration

Personnel Engineering Manager

Distribution Manager

Human Resources

Quality Assurance Manager

IT/IS staff

Program Manager

Key operational personnel at all facilities (e.g. manufacturing, shipping, warehousing) required to complete the assessment

The assessor may also need input from suppliers, customers, and service providers.

Y Preparation

The following are the recommended steps when preparing to complete an assessment.

- Determine whether the organisation will be completing the Full or Basic assessment.
- Identify the participants who will be involved in the assessment process, including top management.
- Inform participants regarding the objectives, scope, and timing of the assessment.
- Advise participants that objective evidence (e.g. process flow charts, procedures, organisation charts) and information will be needed for each criterion.
- Understand any specific customer requirements (e.g. EDI, inventory systems, bulletin boards, capacity

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planning, packing, and labeling) before responding to MMOG/LE criteria.

- Establish a preliminary timeframe for undertaking the initial assessment.
- Take into account that, after completion of the initial assessment, more time may be needed to eliminate any critical gaps identified. Experience has shown that some complex gaps can take between 3-12 months to resolve.

Assessors should be aware that customers and other trading partners may have specific supply chain requirements that are not explicitly incorporated within the MMOG/LE. It is recommended that the assessor contact the customer regarding any specific requirements and how they are to be recorded.

After the assessment is completed and approved by executive management, if required, the organisation should contact the customer for instructions on how to submit the score and classification results.

Y Completing the Evaluation - Assessment and Gap Analysis

The objective of the Assessment and Gap Analysis is for the Assessor to record the organisation's compliance, and any other pertinent information, against each criterion. The Gap Analysis section is used to record information such as action plans and target and completion dates.

When completing an assessment, the assessor should take into account a number of factors before deciding whether the organisation is compliant to a criterion. It is not sufficient to simply determine if there is a process in place that satisfies the condition. The organisation must also ensure that the process is understood and adhered to, and the output of the process is delivering the required or expected outcome on a consistent basis. Objective evidence that the process is stable and well established in the organisation is key.

Throughout the assessment, a criterion that includes “shall” indicates a situation where adherence to the criterion is mandatory for the supply chain function.

Within some of the criteria, references and examples (prefixed by "e.g.") have been included to assist the assessor's understanding. However, examples included in the criteria should not be considered to be an exhaustive or all-inclusive listing.

There are three possible options for responding to each criterion in the assessment, which are defined as follows:



Indicates that the organisation is NON-COMPLIANT with the criterion.



Indicates that the organisation is COMPLIANT with the criterion. At the time a criterion is marked as compliant, the Completion Date should be entered.

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Indicates that the criterion is considered to be NON-APPLICABLE but this status is not yet approved by the customer(s).

A process exists where an N/A criterion can be approved by the customer and the field will change automatically from red to green. This process is explained in more detail later in the section entitled Non-Applicable Criteria "NAC" Process.



If and when the NON-APPLICABLE status is approved by the customer, the N/A indicator changes to green.

Current State and Supporting Evidence - Used to record any information regarding the assessment response. For example, the assessor could record details of any objective evidence, the reason for a non-compliance, or any other information that might assist in understanding the operating conditions at the time of the assessment.

Gap/Continuous Improvement - Used to record what the organisation needs to do in order to become compliant or if the organisation does not intend to become compliant to this criterion.

Action Plan - Used in conjunction with the Gap/Continuous Improvement to record the steps that will be taken to become compliant.

Target Date - Used in conjunction with the Action Plan to record the date by which the organisation intends to become compliant. The target date must be a date in the future. It is important that the organisation includes the target date if it intends to create the Progression Chart. The Progression Chart will be explained in more detail later in this section.

Completion Date - Used to record the date that the organisation became compliant. The completion date cannot be later than the current date. It is important that the organisation includes the completion date if it intends to create the Progression Chart.

Business Function - Allows an organisation to record which department or position was, or should be, interviewed for each criterion. The Business Function information can be especially helpful when performing ongoing annual assessments. This data can be filtered to group the responsible business functions/titles and associated criteria to be interviewed during the assessment.

Responsibility - Used to give the responsible person's name and/or title of the owner of the criterion response and/or delivery of the action plan as well as any associated details that need to be recorded for both the initial and ongoing annual assessments.

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Cost - Used to record any costs associated with becoming compliant to a criterion.

Customer Contact and **Approval Date** – Used to give the name of the customer representative who has approved that a criterion is N/A, and the date that it was approved. By entering these data, the compliance field will change from red highlighted “N/A Non-Compliant” to green highlighted “N/A Compliant”. Additionally, the associated points will be added to the assessment score and reflected in the relevant Scoring Summary.

Y Non-Applicable Criteria "NAC" Process

MMOG/LE is a best practice assessment tool that comprises the fundamental SCM activities required to be undertaken within an efficient and effective organisation. However, there may be exceptional cases where an organisation believes it does not undertake certain SCM activities because of the nature of its business and hence a particular criterion or group of criteria is considered irrelevant or "non-applicable."

There is a formal process to be followed for the designation and approval of Non-Applicable criteria, which is explained in this section.

NOTE: The organisation should check the customer's requirements for designating N/A criteria and the approval process. The approval of "Non-Applicable" criteria by one or more customers shall not be presumed to be acceptance by all customers.

During the assessment process, the assessor should identify which criteria are considered "Non-Applicable" by selecting "N/A" in the Compliance area of the Assessment and Gap Analysis. The box will be highlighted in red. Similarly, the corresponding boxes in the Customer Contact and Approval Date will also be automatically highlighted in red to show that the organisation has not yet received customer approval for the criterion. The Scoring Summary will show the total number of "N/A" criteria within the assessment.

At this stage of the assessment process, all "N/A" criteria are considered as "Non-Compliant" and therefore the scoring and resulting classification does not include the points associated with each of the "N/A" criteria. This condition is confirmed within the Scoring Summary where all "N/A" information and data are shown in red.

In order for points associated with the "N/A" criteria to be included in the scoring and classification, it is necessary to obtain approval from the customer for each "N/A" criterion. The customer approval process is managed through the Customer Contact and Approval Date fields in the Assessment and Gap Analysis. The process to be used is as follows:

1. The assessor shall record the reasons why the criterion is considered N/A in the appropriate "Current State and Supporting Evidence" field
2. When the customer has given approval, the Customer Contact and Approval Date should be entered in the corresponding fields within the

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Assessment and Gap Analysis. After entering the required data, the red highlight in the compliance field will change to green highlight and the organisation will receive the associated points. The Customer Response field can be used to record any additional information regarding the customer approval process. The Full and Basic Scoring Summary will reflect the number of N/A criteria approved by the customer.

Y Full and Basic Scoring Summary

The key company and assessment information recorded in the Assessment Profile and the assessment compliance results are transferred automatically to the Full and Basic Scoring Summary. However, the classification will not display unless the required fields within the Assessment Profile are completed correctly.

The following are the sections in the Full and Basic Scoring Summary:

1. MMOG/LE Scoring Summary (Full or Basic) shows the overall score and classification. Note: The classifications for the Full assessment are A, B, and C. The classifications for the Basic assessment are ZA, ZB, and ZC. In general, this section also includes information regarding the company, assessment date, and assessor details. The company, assessment date, and assessor names are automatically populated from the Assessment Profile. Note: The classification (e.g., A, B, C) will be suppressed if any of the required fields from the Assessment Profile are missing.

2. Customer Approval for Non-Applicable Criteria shows the status of all NA criteria including the total number and the condition (i.e., approved, not approved).

3. Definitions - Scoring, Weights, and Classifications describes the symbols (e.g. X, O, NA) used in the scoring summary, the definition F1, F2, F3 criteria and associated points, and the classification rules. Note, that the classification rules are different for the Full and Basic Scoring Summary.

4. Scoring Summary - Chapter No. Details provides detailed information about the scoring for each of the six chapters.

Note: On the Basic Summary, certain fields are highlighted in grey in each chapter of the six chapter summaries. A field highlighted in grey indicates that the criterion is not used in the Basic assessment. A field highlighted in grey with a symbol (e.g. X, O, N/A) indicates the condition of the criterion in the Full assessment (e.g., non-compliant, compliant, and non-applicable, respectively).

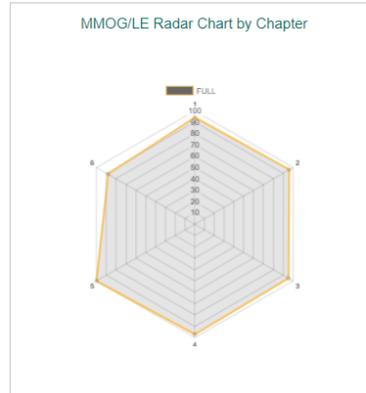
Y Radar Charts

In order to present the Scoring Summary in a more visual form, the results are presented graphically in a radar chart format. The percentages from the Scoring Summary are transferred automatically to the Radar

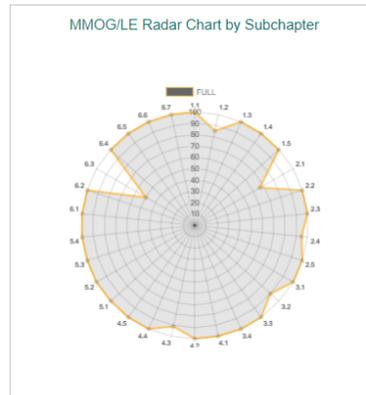
Chart and Radar Charts - Sub-chapters. Below is an example of one of the Radar Charts and corresponding percentages from the Radar Chart worksheet.

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MMOG/LE Radar Chart by Chapter	FULL
1 STRATEGY AND IMPROVEMENT	94%
2 WORK ORGANIZATION	96%
3 CAPACITY and PRODUCTION PLANNING	95%
4 CUSTOMER INTERFACE	97%
5 PRODUCTION and PRODUCT CONTROL	100%
6 SUPPLIER INTERFACE	88%



MMOG/LE Radar Chart by Subchapter	FULL
1.1 Vision and Strategy	100%
1.2 Objectives	85%
1.3 Measurement, Analysis, and Action Plans	100%
1.4 Continual Improvement	100%
1.5 Supply Chain Development	100%
2.1 Organizational Processes	66%
2.2 Operating Procedures and Work Instructions	100%
2.3 Resource Planning	100%
2.4 Work Environment and Human Resources	94%
2.5 Risk Assessment and Management	100%
3.1 Product Realization	100%
3.2 Capacity Planning	90%
3.3 Production Planning	100%
3.4 Systems Integration	100%
4.1 Communication	100%
4.2 Packaging and Labeling	100%
4.3 Shipping	90%
4.4 Transportation	100%
4.5 Customer Satisfaction and Feedback	100%
5.1 Material Identification	100%
5.2 Inventory	100%
5.3 Engineering Change Control	100%
5.4 Traceability	100%
6.1 Supplier Selection	100%
6.2 Supply Chain Management Agreement	100%
6.3 Communication	50%
6.4 Packaging and Labeling	100%
6.5 Transportation	100%
6.6 Material Receipt	100%
6.7 Supplier Assessment	100%

The **Radar Chart** contains two charts showing the score attained for each chapter and sub-chapter.

The **Radar Chart - Sub-chapters** contains six additional radar charts, one for each MMOG/LE chapter, which show the individual sub-chapter scores.

When entering Radar Chart or Radar Chart - Sub-chapter, the chart displayed will reflect the format that the organisation has selected for the Assessment (i.e., Full or Basic). However, the organisation can view the charts in Full or Basic. Additionally, the organisation can view both Full and Basic charts simultaneously by checking the box entitled "View Combined

Radar Charts - Full and Basic." The tables on the worksheet will display the chapter and/or sub-chapter percentages, which reflect the viewing selection the assessor has made. The sub-chapter reference numbers colored blue in the Radar Chart tables provide direct access to the appropriate sub-chapter

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in the Assessment and Gap Analysis.

For both the Full and Basic assessments, the content of the Radar Charts reflects the status of the "N/A" condition, i.e. if the "N/A" criteria are not approved by the customer, the associated points are not included in the results. No criteria from Sub chapters 1.5 Supply Chain Development and 2.1 Organisational Processes are used in the Basic assessment. Therefore, these sub-chapters are not shown in the Basic radar charts. When the combined view is selected, sub-chapters 1.5 and 2.1 will be shown in the Basic table with the fields highlighted in grey. Additionally, the Basic score will be shown as zero percent in the radar chart.

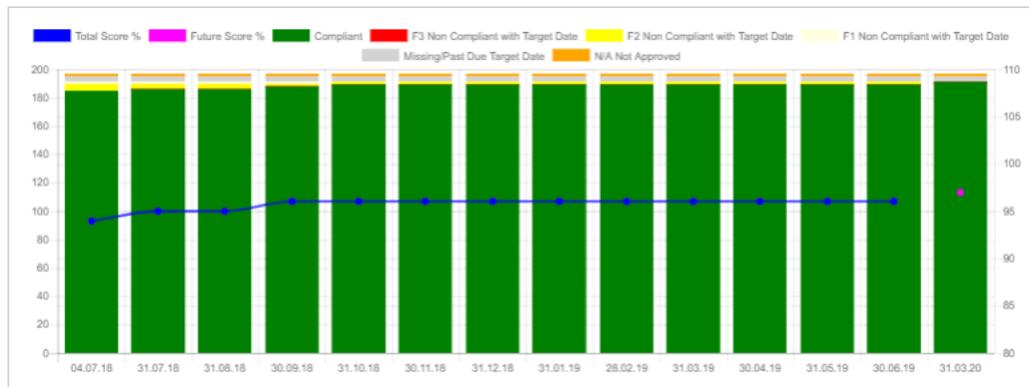
The Radar Charts may be reformatted by the user and copied into other files if necessary.

Y The Progression Chart

The Progression Chart provides a graphical representation of the Scoring and Classification progress according to the "Target Dates" entered against non-compliant criteria in the Assessment and Gap Analysis (see example below). In addition, data tables are included below the chart to show the number of criteria in each category in order to assist the assessor in analysing the score and/or ensuring the charted data are correct. These tables are explained in more detail in the Progression Chart Tables section.

Note: Some target dates exceed the progression period by more than one month! They are accumulated in the last chart / table position.

Chart - MMOG/LE FULL



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The Progression Chart is in the form of a bar chart. The bar chart shows a minimum of 12 months of data from the Assessment Date in the Assessment Profile worksheet. The first bar displays the status on the Assessment Date. Subsequent bars reflect the status at the end of each month following the Assessment Date. Each bar shows the quantity of criteria in the following categories:

- Compliant
- F3 Non-Compliant with Target Dates
- F2 Non-Compliant with Target Dates
- F1 Non-Compliant with Target Dates
- Missing/Past Due Target Date
- N/A - Not Approved

If any target dates go beyond the 12-month horizon, an additional bar will show the last target date in the Assessment and Gap Analysis as shown in the example above. The month ending and resulting classification (e.g., A, B, C or ZA, ZB, ZC) are shown on the horizontal axis. Similarly, the progress of the Total Score % is tracked monthly and shown as a line graph on the bar chart.

A Progression Chart is created automatically based on the data entered in the Assessment and Gap Analysis. The chart is refreshed whenever the page is opened.

When creating a Progression Chart, it is important that the data within the Assessment and Gap Analysis with respect to Completion and Target Dates are accurate and up-to-date. It is recommended that the following filters within the Assessment and Gap Analysis are used to ensure that the fields are correctly populated and up-to-date:

- Missing Completion Dates
- Past Due/Missing Target Dates
- N/A Criteria with Target Dates
- N/A Criteria with Completion Dates
- N/A Criteria Missing Comments

Progression Chart Tables

Y Chart Data table

The content of the Chart Data table produces the Progression Chart. The Chart Data table shows the timing when non-compliant criteria are targeted to become compliant and the resulting effect on the total points, total score and classification.

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Chart Data - MMOG/LE FULL

Month Ending	A. Dat	07.18	08.18	09.18	10.18	11.18	12.18	01.19	02.19	03.19	04.19	05.19	06.19	03.20
Classification	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Compliant	185	186	186	188	189	189	189	189	189	189	189	189	189	191
F3 Non Compliant with Target Date	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F2 Non Compliant with Target Date	5	4	4	2	2	2	2	2	2	2	2	2	2	0
F1 Non Compliant with Target Date	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Missing/Past Due Target Date	4	4	4	4	4	4	4	4	4	4	4	4	4	4
N/A Not Approved	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Total Points	330	332	332	336	337	337	337	337	337	337	337	337	337	341
Total Score %	94%	95%	95%	96%	96%	96%	96%	96%	96%	96%	96%	96%	96%	97%

Note that the categories of Missing/Past Due Target Date and N/A - Not Approved are further detailed in the tables below the Chart Data table.

The reason these tables are made available is that the contents reflect a missed opportunity to improve the score and classification of an organisation. The criteria represented in these tables have no Target Dates within the Assessment and Gap Analysis that state when they are planned to become compliant. Therefore, they do not contribute to the progress shown in the Progression Chart and should be subject to further review. The tables are explained in more detail below.

Missing/Past Due Target Date														
F3 Criteria	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F2 Criteria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
F1 Criteria	3	3	3	3	3	3	3	3	3	3	3	3	3	3
N/A Not Approved														
F3 Criteria	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F2 Criteria	0	0	0	0	0	0	0	0	0	0	0	0	0	0
F1 Criteria	2	2	2	2	2	2	2	2	2	2	2	2	2	2

Y *Missing/Past Due Target Date Table

This table shows the quantity of F3, F2, and F1 non-compliant criteria that have missing or past due target dates recorded in the Assessment and Gap Analysis.

Y **N/A - Not Approved Table

This table shows the quantity of F3, F2, and F1 NA - Not Approved criteria recorded in the Assessment and Gap Analysis..

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Progression Chart - Operating Rules

In order for the Progression Chart to be representative, it is important that information such as the completion date and target dates is accurate and up-to-date. Where these data are missing or out-of-date, the

Progression Chart operates using the following logic:

- The start date of the chart is the Assessment Date.
- Compliant criteria that do not have a "Completion Date" or "Target Date" are shown on the chart as having been compliant on the Assessment Date.
- Compliant criteria that do not have a "Completion Date" but do have a "Target Date" are shown on the chart as having been compliant on the Target Date.
- Non-compliant criteria that have a past due "Target Date" are removed from the relevant "Non-Compliant with Target Date" row of the Progression Chart Data table and moved to the appropriate "Missing / Past Due Target Date"

The score and classification shown in the Scoring Summary may not match with the result shown in the Progression Chart. This is because the Scoring Summary reflects only what is compliant on today's date whereas the Progression Chart shows the status at each month end depending on target and completion dates entered in the Assessment and Gap Analysis. Missing Completion Dates or inaccurate Target Dates will cause the Scoring Summary and Progression Chart to differ.

The content of the Progression Chart should be used to track the progress of the organisation's score and classification based on action plans and associated target dates to implement improvement activities.

Y Conclusion

The information contained in this Instructions section is intended to guide the user when conducting an MMOG/LE assessment and in recording the necessary data. If there are any queries regarding the use or application of MMOG/LE that are not adequately explained, please either contact your customer to seek advice or use the FAQ process.