



Aerospace Improvement Maturity Model (AIMM)

AIMM User Guide

International Aerospace Quality Group (IAQG)
9100-Series Team

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1. Introduction

1.1. Background

The ISO 9001 and 9100 standards require and promote the continual improvement of business performance and customer satisfaction through the implementation of a robust Quality Management System (QMS); however, these standards do not go far enough to be used as a framework to measure the progression of the improvement achieved.

Once certified, many organizations tend to have their sole objective be to maintain their certification and are often disappointed in the value and improvement QMS brings to their organization. In addition, despite achieving the same certificate, some companies narrowly reach the required level of conformity for their QMS, while others reach higher levels of excellence. The difference is that the most successful organizations use certification as intended; as a starting point for improvement and continue maturing their QMS to achieve sustained success.

Based on these facts, the International Aerospace Quality Group (IAQG) decided to develop and deploy an approach to help the entire Aviation, Space, and Defense (ASD) industry to continually improve its level of quality and performance. This approach utilizes the Aerospace Improvement Maturity Model (AIMM).

1.2. Purpose and Objectives

The purpose of the AIMM is to move organizations beyond compliance to the 9100 standard, and transition to continually improve their QMS through use of maturity assessments.

The main objectives of the AIMM are to:

- offer organizations a tool to measure the maturity of their QMS and to set clear targets for improvement;
- provide better recognition of achieved improvement ;
- increase the motivation for improvement; and
- increase the level of quality for the ASD industry supply chain.

1.3. Intended Use

An organization can use AIMM at its discretion and has the responsibility for determining the applicability and suitability of the model for its purposes.

- The AIMM is a flexible tool that can be used for multiple purposes.
- The AIMM is primarily intended for self-assessment by an organization, either certified or not, driven by the voluntary decision of the organization itself.

- The AIMM is not specifically intended to be flowed down to suppliers as a requirement for supplier selection. Nevertheless, IAQG encourages organizations to mutually agree upon the use of the AIMM for the purpose of supplier development, improvement recognition, and determining the extent of supplier surveillance.
- The AIMM can also be used for supporting improvement-driven internal audit programs.
- The AIMM can be used to assess the entire QMS scope or a subset of selected areas of interest prioritized by the organization. Assessments can be conducted as many times, as deemed necessary.

Specific improvement targets can be set, based on assessment results and the organization's strategy to improve its performance and customers' satisfaction.

NOTE: Results of AIMM assessments cannot be used for claiming compliance to the 9100 standard, and therefore should not be used as an alternative to the 9100 certification scheme.

1.4. Acronyms

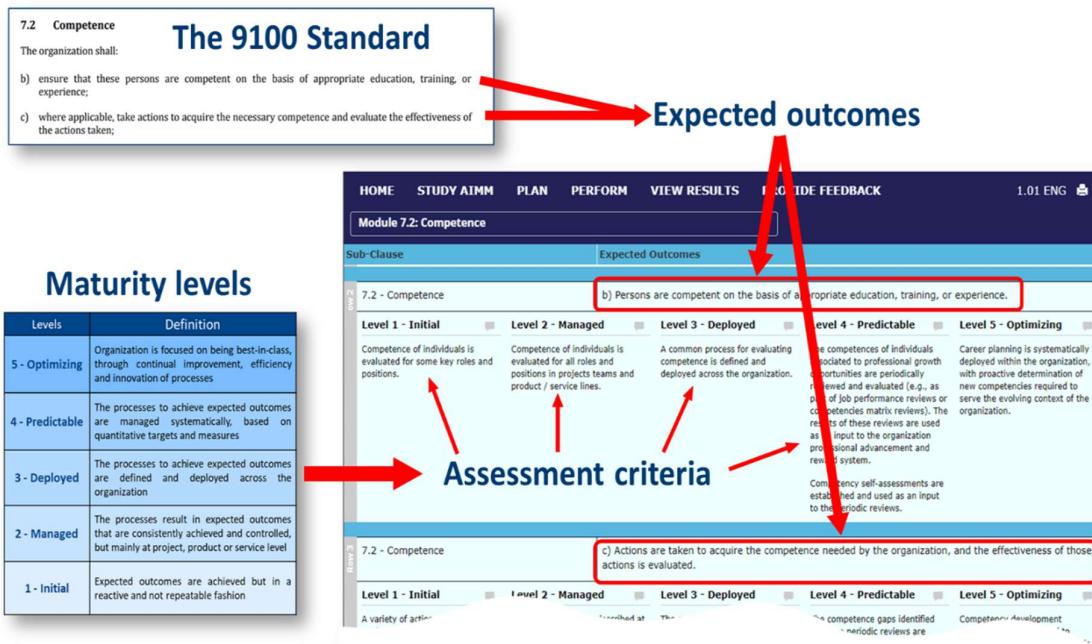
AIMM	Aerospace Improvement Maturity Model
ASD	Aviation, Space, and Defense
IAQG	International Aerospace Quality Group
KPI	Key Performance Indicator
N/A	Not Applicable
QMS	Quality Management System

2. Model Description

2.1. Overall Concept

The AIMM provides a framework to evaluate the level of maturity achieved by an organization in implementing a 9100 compliant QMS. The key elements of this framework are:

- A set of **expected outcomes**; derived from the entire 9100 standard scope of requirements.
- A maturity scale, consisting of **five levels of maturity**, which are defined on the basis of generic criteria and typical keywords, ranging from below up to beyond 9100 compliance.
- A complete set of **maturity assessment criteria**, in the form of tables, used to determine the achieved maturity level for each expected outcome.



2.2. 9100 Expected Outcomes

Expected outcomes are derived from the 9100 standard (i.e., addressing basic ISO 9001 requirements, plus the ASD addition requirements, definitions, and notes as depicted in bold, italic font). Expected outcomes are a positive statement of the results expected from implementing the 9100 standard requirements; therefore, they never contain a “shall” statement or prescriptive details.

Normally the scope and wording of expected outcomes are similar to the related 9100 standard requirements, but they can also be simplified, focused, or formulated to encompass various requirements, as shown by the following examples:

Typical Examples	Original Requirement	Expected Output
Similar to the original requirement	8.5.2 Identification and Traceability <i>The organization shall maintain the identification of the configuration of the products and services in order to identify any differences between the actual configuration and the required configuration.</i>	<i>The identification of product and service configuration is maintained in order to identify any differences between actual and required configurations.</i>
Focusing on the essential aspects of the requirement	4.4.1 Quality Management System and its Processes <i>The organization shall determine the processes needed for the quality management system and their application throughout the organization...</i>	<i>The processes needed by the organization to deliver its products and services are determined.</i>
Grouping of several requirements	4.4.1 Quality Management System and its Processes <i>The organization shall</i> a) <i>determine the inputs required and the outputs expected from these processes;</i> b) <i>determine the sequence and interaction of these processes;</i> ...	<i>The required inputs and the expected outputs of the processes and their sequence and interaction are determined</i>

2.3. Maturity Levels

In AIMM there are five maturity levels, which are defined as follows:



NOTE: Level 0 (Incomplete) is assigned when Level 1 is not achieved.

The IAQG decided to use five maturity levels for a balanced approach allowing the organization to progress in incremental steps that will neither be too big and discouraging, nor too small and with limited added value.

The table on the next page presents a brief explanation of each maturity level, which provides the generic criteria used to define the detailed maturity criteria for each AIMM module.

BRIEF EXPLANATION (GENERIC CRITERIA)				
Level 1 Initial	Level 2 Managed	Level 3 Deployed	Level 4 Predictable	Level 5 Optimizing
Expected outcomes are identified. The foundation for the QMS is in place, but activities are performed ad-hoc; primarily reacting to events and problems. Results are often not repeatable.	The QMS is in place and expected outcomes are achieved consistently. Processes are managed, with proper definition of objectives, outputs, responsibilities, planning, assignment of resources, and monitoring. Processes may not be harmonized at the organizational level, because implementation is driven at the project level or for product/service lines. Results are often repeatable.	Common processes are established and consistently deployed across the organization. Interaction of processes is determined and formalized. Interfaces with interested parties are defined and managed. The data necessary to demonstrate the suitability and effectiveness of the process are defined, collected, and used. The required resources, competence, information, infrastructure, and work environment are available, managed, and maintained. Results are repeatable most of the time.	Quantitative objectives and indicators for on-time delivery and on-quality performance are established. Product, service, and process measures are collected and analyzed to monitor and predict the achievement of process objectives and trends, and are acted upon accordingly. State-of-the-art analysis and control techniques are determined and applied. Suitable tools are used to enhance process control and repeatability of results.	Processes are evaluated and benchmarked against relevant sources. Process improvement actions are systematically pursued to improve efficiency (i.e., to produce more or increase the performance with the same resources) and achieve best-in-class performance. Appropriate data is analyzed to identify opportunities for best practices and innovation. Improvement opportunities are derived from new technologies and process concepts. Quality and continual improvement culture is ingrained in the organization, responsive to its evolving context, and aligned with business goals.

As a complement to the generic criteria above, the table below gives the typical keywords associated to each maturity assessment criteria.

TYPICAL KEY WORDS				
Level 1 Initial	Level 2 Managed	Level 3 Deployed	Level 4 Predictable	Level 5 Optimizing
Informal. Ad-hoc. Reactive. Not fully. Unclear. Not repeatable. Not always. Not structured. Limited visibility.	Effective. Consistent. At project, process, product, or service level. May vary or differ.	Common. Harmonized. Standard. Systematic. Cross- functional. Across the organization.	Key Performance Indicators (KPIs). On-time and on-quality. Quantitative targets. Trends. Prediction. Anticipation.	Efficiency. Optimization. Benchmark. Best-in-class. Innovation. Evolving context. Organizational culture. Continual improvement.

2.4. Maturity Assessment Criteria

The maturity assessment criteria, which assessors use to conduct assessments, are the foundation of the AIMM model. Maturity assessment criteria are defined for each expected outcome in line with the definitions and keywords presented in the previous section, to ensure that criteria related to the same maturity level are consistent.

Numerous examples have been included at each maturity level of the expected output in order to clarify the intent of the criteria. These examples must be considered as such and should not be interpreted as additional requirements to the 9100 standard; nevertheless, they can be used as ideas for improvement in order to progress from one level to the next.

Organizations are strongly encouraged to use the feedback feature of the online application to propose modifications to the existing maturity criteria, additional criteria, and additional examples, and/or request clarifications.

2.5. Calculation of Levels

The calculation of levels is based on the extent of the achievement of the related maturity criteria (in percentage), as determined by the assessor on the basis of evidence, knowledge, and judgement. To allow flexibility in judging the extent of achievement of a criterion, the assessor can use either a binary approach (i.e., 0% or 100%), stepwise approach (by steps of 10%, 25%, etc.), or continuous approach, as preferred.

The percentage of achieved level criteria is calculated by summing up the achievement of all criteria (in percentage) in each column in the table and dividing the total by the total number of criteria in the column.

Maturity level “n” is achieved if:

- level “n” criteria are largely achieved (i.e., $\geq 85\%$); and
- all lower levels criteria are fully achieved (i.e., 100 %).

A maturity level is calculated for each AIMM module. No aggregation of maturity levels obtained for individual modules to derive an overall maturity level for the organization is foreseen, because it is not considered meaningful.

2.6. Relationship with Auditing and Certification

AIMM can be used by both certified and non-certified organizations:

- By the non-certified ones, to identify weak areas of their QMS and the improvements needed to reach the level of certifiability.
- By the certified ones, to evaluate the current levels of maturity and set measurable targets for improvement for their entire QMS or for specific areas, thus sustaining the culture of continual improvement.

Therefore, the **AIMM is neither a replacement, nor a competitor of the 9100 certification**: self-assessments and third-party audits are complementary. The following table provides a comparison between certification audits and AIMM assessments.

	Certification Audit	Maturity Assessment
Principle	Evaluates if the QMS has reached the minimum level of compliance to the 9100 standard, regardless of the level of maturity	Evaluates the maturity of the QMS from below up to beyond 9100 compliance, regardless of any 9100 certificate
Type of Result	Pass/fail: A single certificate for the entire QMS	One maturity level per assessed module (no aggregation for the entire QMS)
Conducted by	Third-party auditors	Primarily assessors from the organization (*)
Reference	The entire 9100 standard	All or part of the AIMM modules

(*) External qualified assessors or assessors from interested parties (e.g., customers) may be involved.

Reaching a certain level of maturity does not necessarily guaranty a successful certification. Nevertheless, **a certain correlation exists**, as it could be inferred from the definition of the AIMM maturity levels, as well as proven by numerous assessment results from actual pilot assessments.

An organization can be expected to be:

Certifiable and beyond the standard	if all modules are around maturity Levels 4 or 5
Most probably certifiable	if all modules are around maturity Levels 2 or 3
Most likely not yet certifiable	if some modules are around maturity Level 1

2.7. AIMM Modules

The 9100 standard has been split in 26 AIMM assessment modules to allow organizations to tailor the scope of the assessment, by selecting specific areas and modulating the effort in accordance with their needs, priorities, and resources.

The modules are intended to have homogeneous and self-contained subjects, which do not necessarily reflect the breakdown of 9100 standard clauses. As an example, a specific module has been created for clause 7.1.5 (Monitoring and Measuring Resources" out of clause 7.1 (Resources) due to the weight it represents within this clause and its specificity [i.e., managed by a different process than clauses 7.1.2 (People) or 7.1.3 (Infrastructure)].

Furthermore, some small sections of the 9100 standard have been grouped together to create a more sizeable module, to reduce the sensitivity of the variation of the maturity level scores, which increases as the number of rows in the module decreases. As an example, 7.3 (Awareness) and 7.4 (Communication), which are often managed under the same responsibility of top management, have been grouped under 7.3 – 4 (Awareness and Communication).

In the end, all clauses of the 9100 standard have been incorporated into the AIMM modules listed in the table on the next page.

Module Numbers	Modules Names (and relationship with 9100 clause structure, when different)
4	Context of the Organization
5	Leadership
6	Planning
7.1	Resources (<i>without clause 7.1.5</i>)
7.1.5	Monitoring and Measuring Resources
7.2	Competence
7.3 - 4	Awareness and Communication (<i>includes clauses 7.3 and 7.4</i>)
7.5	Documented Information
8.1	Operational Planning and Control
8.1.1	Operational Risk Management
8.1.2	Configuration Management
8.1.3	Product Safety
8.1.4	Prevention of Counterfeit Parts
8.2	Requirements for Products and Services
8.3	Design and Development of Products and Services
8.4.1	Control of Externally Provided Processes, Products, and Services – General
8.4.2	Type and Extent of Control
8.4.3	Information for External Providers
8.5 - A	Control of Production and Service Provision (<i>clause 8.5.1 without its sub-clauses</i>)
8.5 - B	Control of Equipment and Special Processes; Production Process Verification (<i>includes sub-clauses 8.5.1.1 - 8.5.1.3</i>)
8.5 - C	Identification, change control, preservation, release and post-delivery (<i>includes sub-clauses 8.5.2 - 8.5.6 and 8.6</i>)
8.7	Control of Nonconforming Outputs
9.1	Monitoring, Measurement, Analysis, and Evaluation
9.2	Internal Audit
9.3	Management Review
10	Improvement

3. Implementation Guidance

3.1. Recommended Assessment Process

3.1.1. Planning the Assessment

The organization should start by deciding the **scope of the assessment**, in terms of the QMS areas (i.e., AIMM modules) and organizational areas to be evaluated. The organization should determine whether or not they need to evaluate these modules at the same time (the entire scope of the 9100 standard across the entire organization) or by initially focusing on priority areas (specific modules). This is crucial for getting the most value out of the exercise. Depending on the experience of the organization with the assessment process, a **pilot trial** could be considered, to familiarize the organization with the process and gain confidence in its performance.

The next essential step should be to define the **target maturity levels** for each of the AIMM modules to be assessed. The organization should be ambitious in setting targets, although realistic, keeping in mind that the main purpose is to drive improvement.

The planning must also consider the **human resources to be involved** in the assessment, which means the assessor(s), as well as the counterparts which must support the gathering of evidence and evaluation of achieved maturity in the various areas. The assessor(s) may be internal or external, as deemed appropriate by the organization. It is recommended to consider the use of multi-functional teams in relevant areas (e.g., design and development). In case more than one assessor is involved, a lead assessor should be appointed.

Finally, the assessment schedule should be defined and agreed with the parties involved. The **time spent to assess** each module also needs to be considered. The preliminary data from the trial assessments by organizations of different size, and from all IAQG sectors, show a big variation of the effort spent for assessing a module, with an average duration of about four hours. More accurate data will be obtained once the AIMM has been used more extensively across the industry and feedback provided by users through the online application.

As for implementing any new approach, a **learning curve** must be considered, with more time needed at the beginning to understand the basic principles and elements of the AIMM and associated tool/modules, and less time spent when re-assessing a module, or part of it, after implementing actions to fill identified gaps to a maturity target. Using the same assessor(s) on a regular basis will speed up the learning curve, and lead to less effort and more added value.

3.1.2. Performing the Assessment

Although all maturity assessments are aimed at improving the performance of the organization and the satisfaction of its customers, each assessment may have **specific objectives**, for example:

- Gage the level of maturity of the entire QMS or for a specific area(s) of interest.
- Get ideas to expand or upgrade the organization's QMS.
- Verify the level of QMS readiness, prior to a 9100 certification audit.
- Improve a 9100 certified QMS.
- Determine an improvement plan for a critical area of the organization.
- Set clear and quantifiable improvement targets, and to verify their achievement.

Therefore, prior to conducting an assessment, it is necessary for the lead assessor **to give a proper briefing** to concerned stakeholders to get their buy-in; to achieve the most benefit for the organization. At minimum, the following points should be covered at this preliminary briefing:

- Explain the reason and purpose of the AIMM assessment.
- Emphasize its totally voluntary nature and the organization's own interest in finding opportunities for improvement.
- Stress that the AIMM assessment should not be confused with an internal audit or other type of verification driven by customer or regulatory bodies.
- Indicate the date(s) and location(s) where the assessment will be conducted, by whom, and with which counterparts.
- Indicate when, how, and to whom the assessment results will be communicated.

It is up to the lead assessor to determine the best way to prepare and perform this briefing depending on the context of the assessment and normal communication practices within the organization. The AIMM **presentation material** provided on the IAQG website may be used for the briefing, after tailoring the content, as needed.

AIMM assessments should be performed in a totally objective and open manner. They are assessments decided by the organization for its own consumption, but should still be based on the evaluation of **objective evidence**, as much as possible, or the **honest judgement** of experts or key personnel.

The AIMM self-assessments and certification audits both rely on objective evidence to judge whether or not expected outcomes are achieved or the organization is in compliance to the standard; however, normally the AIMM does not need to be as formal in tracing and collecting all relevant evidence, if the assessor(s) and experts

know that the intent of the expected outcome is met by the organization. In some specific cases (e.g., use of the AIMM for improvement-driven internal audits), the need for objective evidence will require a greater level of formalism.

The assessor(s) should document the basis for the conclusions on what extent the maturity assessment criteria has been met.

3.2. Defining and Implementing Improvements

To benefit from the maturity assessment, the organization should **analyze the results** to identify the gaps with respect to the desired targets and more specifically the shortcomings to the maturity assessment criteria considered critical by the organization. On that basis, and considering the organization's priorities, risks, strategy, or objectives, an improvement plan should be defined and approved by top management, with actions, resources, and deadlines established.

A **new assessment** should be considered at an appropriate time after the completion of the improvement plan, to allow the actions to settle in the organization's processes, in order to evaluate the achieved improvement. It is recommended to conduct the new assessment **with the same assessors** than the previous one, in order to minimize any possible distortion by subjective judgement in the measurement of improvement.

By conducting regular assessments and implementing relevant improvement plans, the organization will progress to higher maturity levels at a defined pace.

This approach will lead the organization to adopt a management style focused on prevention, optimization, and state-of-the-art research, to achieve excellence and become a reference in the ASD industry, for its own benefit and that of its customers.

Demonstrated improvement should be recognized and celebrated, realizing in this way the ultimate intent of the AIMM methodology.

3.3. Competence of Assessors

Assessments should be performed by individuals with an adequate mix of education, training, and experience on:

- The 9100 standard.
- The organization's QMS and associated processes.
- Improvement concepts and methods.
- The AIMM model, assessment process, and supporting tool.
- Personal skills (e.g., diplomatic, open-minded, ethical, perceptive), which contribute to an effective performance of the assessment and to added value for the organization.

4. Using the AIMM Online Application

4.1. Introduction

In order to support the implementation of the AIMM, an online application has been developed by the IAQG. This application is accessible via the IAQG website (www.iaqg.org), under the “IAQG Tools” tab, as shown here, or directly at <https://aimm.iaqg.org/>

The purpose of this tool is to provide:

- The ASD industry with a tool that facilitates the practical implementation of the AIMM.
- A common method of assessing the maturity across the ASD industry; allowing the comparative analysis of results.
- An instrument to collect data from users in order to improve the tool itself, the AIMM, and, at a later stage, the 9100-series standards.

The use of this tool by ASD organizations, as well as the AIMM approach, is on a voluntary basis. The only request from the IAQG is to provide some basic data concerning the organization (see registration) and any feedback that assessors want to share, for anonymized statistical analysis to evaluate the status of the ASD industry and to improve the AIMM.

4.2. Home Page

The AIMM home page can be reached via the IAQG website, as explained above.



HOME WHAT'S NEW INFORMATION CONTACT US FAQS

Welcome to AIMM

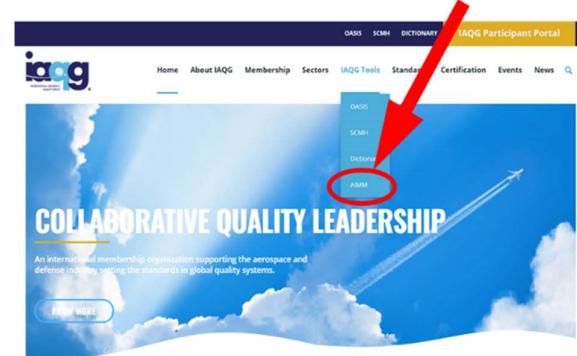
The Aerospace Improvement Maturity Model (AIMM) is provided by the IAQG to help organizations move beyond compliance to the 9100 standard and improve the maturity of their Quality Management System (QMS). Using AIMM, an organization can evaluate its current level of maturity and set clear targets for improvement. AIMM can be successfully used by certified or non-certified organizations, either for the entire scope of a 9100 compliant QMS or specific areas of interest.

The model comprises 26 modules, which have been developed by IAQG experts, and thoroughly reviewed and validated through several field trials by the ASD industry. This application supports the performance of self-assessments against the model, which can be planned and tailored in accordance with the needs of the users.

The users are warmly invited to take advantage of AIMM and provide feedback for its continual improvement.

Login
Forgot Password
New User Register

Information and Support
What's New
Introductory Presentation
AIMM User Guide
Abbreviations
Recorded Webinars
FAQs
Contact The AIMM Team



From the Home Page the user can Register (if a new user), Login or request resetting the password, if forgotten.

Even before registering and logging in, from the Home Page the user can access the AIMM supporting information:

- The latest news about AIMM.
- An introductory presentation.
- This AIMM User Guide.
- The list of acronyms used within the AIMM.
- Webinars about the AIMM approach and its usage.
- Response to AIMM frequently asked questions.
- Means to contact the AIMM team.

4.3. Registration

Upon registration, in addition to the personal information, the following basic company information shall be provided: organization, type of business, size and location, and visibility of any QMS certifications.

The user must set a password. The user is also requested to read and approve the AIMM application “Terms of Use”, and to provide explicit consent for IAQG to use the company information and the application usage data (e.g., AIMM modules assessed, number of sessions to complete an assessment, duration of each session). This data will be used in an anonymous way for statistical purposes.

The screenshot shows a registration form titled "Register Account". At the top, there is a navigation bar with links: HOME, WHAT'S NEW, INFORMATION, CONTACT US, and FAQS. Below the title, there are sections for "Personal Information" (Email*, First Name*, Last Name*, Time Zone), "Company Info" (Organization*, Organization Name), "Type of Business*" (checkboxes for Aviation, Space, Defense, Other, Please Specify), "Size of Business*" (Select Size dropdown), "Company Location*" (Select Location dropdown), and "QMS Certifications*" (checkboxes for None, 9100, 9110, 9120, Other Certifications, Please S). There are also fields for "Password" and "Confirm*". At the bottom, there are two checkboxes under "Agreements": "I give explicit consent for IAQG to use profile data and application usage data. Please read the Terms of Use by clicking here." and "I have read the Terms of Use and wish to continue with registration". A "Create Registration" button is located at the very bottom right.

4.4. Main Functions

After login, links to the main functions of the application will be visible; this guide is structured accordingly:

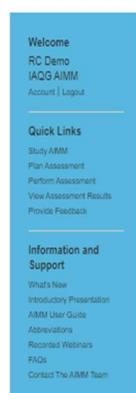
- Study AIMM.
- Plan Assessment.
- Perform Assessment.
- View Assessment Results.
- Provide Feedback.

Welcome to AIMM

The Aerospace Improvement Maturity Model (AIMM) is provided by the IAGG to help organizations move beyond compliance to the 9100 standard and improve the maturity of their Quality Management System (QMS). Using AIMM, an organization can evaluate its current level of maturity and set clear targets for improvement. AIMM can be successfully used by certified or non-certified organizations, either for the entire scope of a 9100 compliant QMS or specific areas of interest.

The model comprises 28 modules, which have been developed by IAGG experts, and thoroughly reviewed and validated through several field trials by the ASD industry. This application supports the performance of self-assessments against the model, which can be planned and tailored in accordance with the needs of the users.

The users are warmly invited to take advantage of AIMM and provide feedback for its continual improvement.



While logged in, it is possible to edit the information provided upon registration, by using the “Account” link.

4.5. Study AIMM

Prior to performing an assessment, an assessor(s) needs to become familiar with the AIMM modules and their associated maturity level criteria. The “Study AIMM” feature (see screenshot of the AIMM home page on the right) supports this aspect.

When clicking on “Study AIMM”, the list of all modules appears as below:

The screenshot shows the 'Study AIMM' page with a dark blue header containing the logo and navigation links. Below the header is a main content area with a light blue sidebar on the right. The sidebar contains sections for 'Welcome', 'Quick Links', and 'Information and Support'. The 'Welcome' section includes links for 'Thierry Coutand', 'Account | Logout', and 'Study AIMM'. The 'Quick Links' section lists 'Study AIMM', 'Plan Assessment', 'Perform Assessment', 'View Assessment Results', and 'Provide Feedback'. The 'Information and Support' section lists 'What's New', 'Introductory Presentation', 'AIMM User Guide', 'Abbreviations', 'Recorded Webinars', 'FAQs', and 'Contact The AIMM Team'. The main content area displays a grid of AIMM modules:

Module 4: Context of the Organization	Module 5: Leadership	Module 6: Planning	Module 7.1: Resources
Module 7.1.5: Monitoring and Measuring Resources	Module 7.2: Competence	Module 7.3: Awareness	Module 7.4: Communication
Module 7.5: Documented Information	Module 8.1: Operational Planning and Control	Module 8.1.1: Operational Risk Management	Module 8.1.2: Configuration Management
Module 8.1.3: Product Safety	Module 8.1.4: Prevention of Counterfeit Parts	Module 8.2: Requirements for Products and Services	Module 8.3: Design and Development of Products and Services
Module 8.4.1: Control of externally provided	Module 8.4.2: Type and extent	Module 8.4.3: Information for external providers	Module 8.5: A: Control of

Below the grid, there are dropdown menus for 'VERSION 1.01' and 'LANGUAGE ENG'.

The screenshot shows the 'Study AIMM' page with a red arrow pointing to the 'Study AIMM' link in the sidebar. The sidebar contains sections for 'Welcome', 'Quick Links', and 'Information and Support'. The 'Welcome' section includes links for 'Thierry Coutand', 'Account | Logout', and 'Study AIMM'. The 'Quick Links' section lists 'Study AIMM', 'Plan Assessment', 'Perform Assessment', 'View Assessment Results', and 'Provide Feedback'. The 'Information and Support' section lists 'What's New', 'Introductory Presentation', 'AIMM User Guide', 'Abbreviations', 'Recorded Webinars', 'FAQs', and 'Contact The AIMM Team'.

It is then possible to select the version number of the AIMM to be consulted and eventually used for the assessment.

The screenshot shows the 'Study AIMM' page with two red arrows pointing to the 'VERSION' and 'LANGUAGE' dropdown menus. The 'VERSION' menu is set to '1.01' and the 'LANGUAGE' menu is set to 'ENG'. The page content below the dropdowns shows the AIMM module grid.

All versions will have an English option, which is the initial language that the criterion was defined in. Translations, if available, can be selected using the drop down list.

Clicking on any module tile displays its content, as shown below.

Module 8.1: Operational Planning and Control		2.0 ENG
Sub-Clause	Expected Outcomes	
1) 8.1 - Operational Planning and Control	a) and g) Requirements from all interested parties that could have an impact on the product throughout its life cycle are known and understood.	
Level 1 - Initial	Level 2 - Managed	Level 3 - Deployed
Version 2.0 << Internal and external issues are determined in an ad hoc manner and for limited parts of the organization.	A formal process and cross-functional teams are used:	A database of interested parties requirements exist and can be cross referenced with different functional areas (e.g. Engineering, Procurement, Sales, Human Resources, Finance), using different methodologies.
Examples of issues are provided in the next row.	1) to evaluate that the requirements stated by the organization are comprehensive and 2) to identify any additional requirements based on their knowledge of the product, as well as risks associated with organization context and end use of products.	Thanks to its diverse customer background, the organization is capable of identifying additional requirements and risks based on lessons learned from previous product introduction and design.

From this view, the user can identify for each module:

- The number and title of the 9100 standard sub-clause.
- The associated expected outcomes.
- The maturity assessment criteria for each level.

For the study of the entire AIMM, the user needs to review the content of each module tile. A “print” button enables printing of all tiles for easier study, prior to planning the assessment.

Tip: In case the user identifies an issue or has an idea for improvement, it is strongly recommended to click on the icon close to the corresponding level name and to describe it in free text in the pop-up form. All comments recorded in that manner can be transferred in one click to the IAQG (see Feedback section of this guide). When a comment is entered, the icon becomes dark.

4.6. Plan Assessment

The purpose of the “Plan Assessment” feature is to set the **scope and target for a new assessment** (including the team of assessors) and to provide a list of the previous assessments conducted by the organization, for retrieval and any relevant use (e.g., for review, to complete a partial assessment, to update previous results or targets).

When clicking on “Plan Self-Assessment”, the following view appears:

Welcome to AIMM

The Aerospace Improvement Maturity Model (AIMM) is provided by the IAQG to help organizations move beyond compliance to the 9100 standard and improve the maturity of their Quality Management System (QMS). Using AIMM, an organization can evaluate its current level of maturity and set clear targets for improvement. AIMM can be successfully used by certified or non-certified organizations, either for the entire scope of a 9100 compliant QMS or specific areas of interest.

The model comprises 20 modules, which have been developed by IAQG experts, and thoroughly reviewed and validated through several field trials by the ASD industry. This application supports the performance of self-assessments against the model, which can be planned and tailored in accordance with the needs of the users.

The users are warmly invited to take advantage of AIMM and provide feedback for its continual improvement.

Quick Links

- Home
- What's New
- Information
- Contact Us
- FAQs
- Plan Self-Assessment (link circled in red)
- View Assessment Results
- Provide Feedback

Information and Support

- What's New
- Introductory Presentation
- Assessor User Guide
- Administrator
- Recorded Webinars
- Faqs
- Contact The Admin Team

The screenshot shows the IAQG AIMM application's 'Create New Assessment' screen. At the top, there are navigation tabs: HOME, STUDY AIMM, PLAN, PERFORM, VIEW RESULTS, and PROVIDE FEEDBACK. Below these are buttons for 'Create New Assessment' and 'Create New'. A section titled 'Work with Ongoing / Past Assessments' lists existing assessments. A table shows columns for Name, Created, Updated, User, Version, Language, and Actions. One row is selected, showing 'Name of this assessment' as 'Thierry test1', 'Created' as '05/29/21', 'Updated' as '05/16/21', 'User' as 'Thierry Coutand', 'Version' as '1.01', 'Language' as 'ENG', and 'Actions' with a delete icon. Below this is a section titled 'Select Modules and Respective Target Level', which contains a grid of AIMM modules: Module 4: Context of the Organization, Module 5: Leadership, Module 6: Planning, Module 7.1: Resources, Module 7.1.5: Monitoring and Measuring Resources, Module 7.2: Competence, Module 7.3: Awareness, and Module 7.4: Communication. Each module has a 'Target Level' dropdown.

By default, all modules' tiles are displayed in dark blue, with their target level set to "0".

Prior to selecting the AIMM modules to be assessed and their targeted maturity level, it is necessary to create a new assessment.

In that view, click on the "Create New" button, the view below appears and should be completed in accordance with the supporting comments and examples depicted in each field.

The screenshot shows the 'Create New Assessment' form. It includes fields for 'Assessment Identification' (Name, Version, Language), 'Pass Phrase' (Pass Phrase, Confirmation), 'Scope of the Assessment' (Organization, Location, Departments, Projects, Products), 'Assessment Team' (Lead Assessor, Team Member, Module Assigned), and 'Schedule of Activities' (Date, Activity, Counterparts). There is also a 'Create New' button at the bottom right.

The user should enter the following (fields are not mandatory):

- Assessment identification: name, version, and language.
- The scope of the assessment, in terms of organization, location(s), departments, projects, and products.
- The **assessment team**, including the lead assessor, team members, and assigned modules.

NOTE: The "Info" icon next to "Assessment Team" provides detailed guidance on how the team can use the application to conduct concurrent assessments.

- Finally, the assessment **schedule**.

If an **additional level of encryption** is desired for that specific assessment (e.g., the results of a trial assessment might not be considered very sensitive and not requiring special encryption) a "Pass Phrase" must be entered and confirmed. This will add a layer of encryption of the user-entered data so that IAQG cannot view or use them. Only a Pass Phrase holder can decrypt the user-entered data.

Warning: If the Pass Phrase is lost, the data will be lost, as the IAQG will not be able to access the encrypted information.

When all necessary fields have been completed, click on the “Create New” button at the bottom right of the window to save all the information related to this assessment.

It is possible to update or delete this information at any time by clicking on the corresponding icons in the “Actions” column.

Name	Created	Updated	User	Version	Language	Actions
○ Name of this assessment	05/29/21		Thierry Coutand	1.01	ENG	
○ Thierry test1	05/16/21	05/16/21	Thierry Coutand	1.01	ENG	

NOTE: Version, language, and the assignment of the Pass Phrase cannot be modified after ion of an assessment.

At this stage of the planning, and prior to performing any assessment, the module(s) to be assessed must be selected and the respective target levels assigned. Any of the following methods can be used, alone or in combination (see screenshots on the next page):

- Selection of all modules, with automatic assignment of default target levels. The default target level can be set by the user.
- Selection/deselection of a single module by clicking on it, with automatic assignment of the default target level.
- Selection of an individual module and assignment of respective target level by selecting a target level on the dropdown list. Clicking on “N/A” will deselect a module.
- Change of assigned target level to an individual module by using the dropdown list.

While the selection of the modules to be assessed can be performed only on this page, the target levels can be changed also on the View Results page.

The maturity target(s) can be changed at any time (i.e., before, during, and after conducting an assessment):

- click on “Select all” and set a **common target** level for all AIMM modules; and/or
- set/change the target level for one or several modules, by clicking on the scrolling list located at the bottom left of each module tile(s); **different targets** can be set for individual modules.

HOME STUDY AIMM PLAN PERFORM VIEW RESULTS PROVIDE FEEDBACK

Create New Assessment

Work with Ongoing / Past Assessments

Name	Created	Updated	User	Version	Language	Actions
○ Thierry test1	05/16/21	05/16/21	Thierry Coutand	1.01	ENG	

Select Modules and Respective Target Level

Select a module by clicking on it or entering a target level

Select All Default target level 3 ▾

Module 4: Context of the Organization	Module 5: Leadership	Module 7.1: Learning	Module 7.4: Communication
Target Level	Target Level	Target Level	Target Level
Module 7.1.5: Monitoring and Measuring Resources	Module 7.2: Competence	Module 7.3: Awareness	Module 7.4.1: Communication
Target Level	Target Level	Target Level	Target Level
Module 7.5: Documented Information	Module 7.6: Operational Information	Module 8.1.1: Operational Information	Module 8.1.2: Operational Information

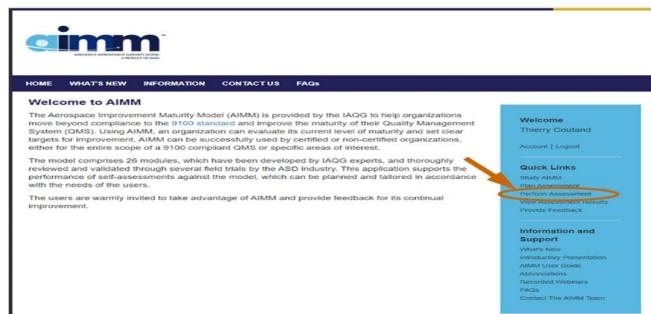
NOTE: The person icon at the bottom right of the module boxes is currently inactive (placeholder for future feature related to team assignments).

4.7. Perform Assessment

In order to be able to perform an assessment, the following is essential:

- An assessment must exist and be selected on the “Plan Assessment” page;
- At least one module must have been selected for that assessment.

To start an assessment, click on the “Perform Assessment” link, as shown on the screenshot to the right.



The screenshot shows the 'Perform Assessment' page for Module 4: Context of the Organization. At the top, there's a dropdown menu set to 'Module 4: Context of the Organization'. Below it is a table with columns for 'Clause', 'Expected Outcomes', 'Remarks', and 'Assessed'. The first row has a status of 'Level 0 Achieved' and 'Assessed 0%'. The second row has a status of 'Assessed' and '0%'. The third row has a status of 'Assessed' and '0%'. A blue ribbon at the top right contains buttons for 'Maturity Levels' and 'Assessor Guidance'. A red arrow points from the text 'Select the module to be assessed from the scrolling list here' to the dropdown menu. Another red arrow points from the text 'The page to the left opens, on which the module to be assessed can be picked from the dropdown list of the modules that were preselected when planning the assessment.' to the 'Assessor Guidance' button.

Module 4: Context of the Organization			
	Module Status	Level 0 Achieved	Assessed 0%
- Understanding the organization and its context	External and internal issues that may affect the strategic direction or the intended results of the organization are determined.	No Remarks	0% Assessed
	Information related to identified issues is monitored and reviewed.	No Remarks	0% Assessed
- Understanding the needs and expectations of interested parties	Recent interested parties are determined and related information monitored, in relation to the organization's activities and the impact on their QMS.	No Remarks	0% Assessed

The page to the left opens, on which the module to be assessed can be picked from the dropdown list of the modules that were preselected when planning the assessment.

For the selected module, the following is displayed:

- the list of sub-clauses;
- the associated expected outcomes;
- the assessor's remarks on each row (free text); and
- the percentage of assessment completion for that row (i.e., % assessed).

On the blue ribbon (top right), there are two buttons:

- “Maturity Levels”, which provides a short description of the definition for the assessment maturity levels.

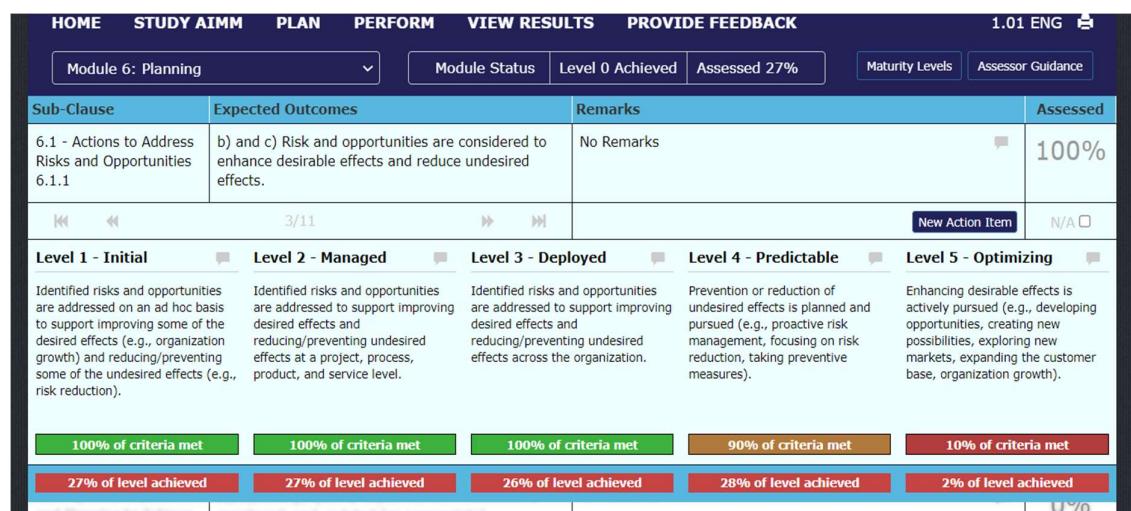
- “Assessor Guidance”, which provides step-by-step guidance to perform the assessment.

Before starting the assessment of the module, it is recommended to read all of the “Expected Outcomes” to get an overall feeling of the scope for each of them and to identify those that are excluded from the scope of the QMS (see ISO 9001, clause 4.3). For those exclusions, check the Not Applicable (N/A) box to exclude them from the maturity level and percentage of assessment completion calculations.

The assessment activity can then begin. Click on the first line to display the corresponding maturity criteria and assess the extent to which Maturity Level 1 criteria is met. Once done, indicate the estimated percentage of achievement in the corresponding field at the bottom of the Level 1 column. The cell automatically turns red for values < 85%, orange for values between 85% and <100%, or green for values = 100%.

Move to the next column on the same row to assess the level of achievement of the Maturity Level 2 criteria and indicate the corresponding percentage at the bottom of that column. Repeat these steps for all available maturity levels. In the end, the "% assessed" box on the right indicates 100% of completion for this “Expected Outcome”.

NOTE: The application will not allow the user to enter a value for Maturity Level n, if Level n-1 and lower are not entered first.



The extent of compliance for the highest maturity levels may be low, but it is still useful to assess them to identify relevant opportunities for improvement. The assessor can also decide to stop before reaching the highest maturity level. In this case, he/she must enter the value 0% for the non-assessed levels.

- For each cell of the five maturity levels, the assessor can enter “Assessor’s Notes” considered significant and useful for the organization (e.g., rationale

for deciding the percentage of achievement, reference to relevant documentation, strong point or identified weakness, ideas for improvement) by clicking on the icon on the top right of each cell for that level. After entering a note, the icon becomes dark.

- For each row, the assessor can enter remarks for the entire expected outcome (e.g., the reason for making the expected outcome N/A) by clicking on the icon inside the “Remarks” field.

Once an expected outcome has been fully assessed, the page may look like the screenshot on the previous page. The cumulative percentage of criteria achievement per maturity level, as calculated from the rows assessed at that point, is dynamically indicated on the bottom line (with all red cells in this example).

By hovering with the cursor on the cells of the bottom line, a pop-up window will show a small dashboard of the module assessment status and a reminder of the conditions for achieving that level.

Right below the “Remarks” field, the button “New Action Item” offers the possibility to establish an improvement plan. By clicking on it, a new window opens for the assessor to indicate the action to be done for increasing the maturity level of this expected outcome, the actionees, and the target date for implementation.

Click on the “>>” icon, located right below the “Expected Outcomes” cell to move to the next Expected Outcome and assess it as previously explained. The position of the row is indicated between the “<<” and “>>” icons in terms of line number Vs the total number of lines within the given module (e.g., “3/11” in the screenshot on the previous page).

The status of the module is dynamically shown on the blue ribbon as follows:

Module Status	Level 0 Achieved	Assessed 0%
---------------	------------------	-------------

- The “Assessed” number indicates the progress of the assessment (e.g., 100% when the assessment is completed). A lower value means that some cells have not been filled in; this assessment should be completed.
- The "Achieved" number indicates the maturity level achieved for the module at that moment. The number shown will only be the actual module maturity level when the module has been completely assessed (i.e., 100%).

4.8. View Assessment Results

The “View Assessment Results” page can be reached with the link in the screenshot shown on the right.

This page shows dynamically during the assessment its status of completion, the achieved percentage for each maturity level in each module, and the level achieved for each module, at any point of an ongoing assessment.

Welcome to AIMM

The Aerospace Improvement Maturity Model (AIMM) is provided by the IAQG to help organizations move beyond compliance to the 9100 standard and improve the maturity of their Quality Management Systems. Using AIMM, users can quickly assess the current maturity levels against target levels or targets for improvement. AIMM can be successfully used by certified or non-certified organizations, either for the entire scope of a 9100 compliant QMS or specific areas of interest.

The model comprises 20 modules, which have been developed by IAQG experts, and thoroughly reviewed and validated through several field trials by the ASD industry. This application supports the performance and self-assessments against the model, which can be planned and tailored in accordance with the needs of the users.

The users are warmly invited to take advantage of AIMM and provide feedback for its continual improvement.

Quick Links

- Home
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- Plan Assessment - White Paper
- Plan Assessment - Case Studies
- Plan Assessment - Testimonials
- Plan Assessment - Resources
- Plan Assessment - Support
- Plan Assessment - Training
- Plan Assessment - User Guide
- Plan Assessment - Helpdesk
- Plan Assessment - Recent Webinars
- FAQs
- Contact The Admin Team

Information and Support

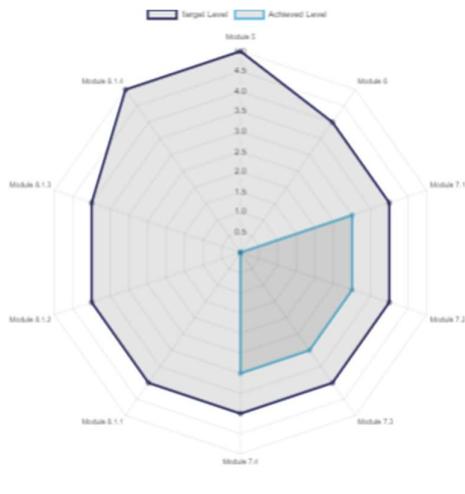
- Home
- What's New
- Information
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- FAQs
- Introductory Presentation
- AIMM User Guide
- Helpdesk
- Recent Webinars

	Level Achieved	Target Level	Percentage
Module 5: Leadership	0	5	0%
Module 6: Planning	0	4	0%
Module 7.1: Resources	3	4	75%
Module 7.2: Competence	3	4	100%
Module 7.3: Awareness	3	4	100%
Module 7.4: Communication	3	4	100%
Module 8.1.1: Operational Risk Management	0	4	0%
Module 8.1.2: Configuration Management	0	4	0%
Module 8.1.3: Product Safety	0	4	0%
Module 8.1.4: Prevention of Counterfeit Parts	0	5	0%

The assessment results are displayed under three different formats:

- A table listing all selected modules, the level achieved, the target level, and percentage assessed for each module.
- A spider/radar chart showing the achieved maturity level versus the target level for each module.
- Two types of bar charts, both showing the percentage achieved of the five maturity levels for each assessed module in two different ways.

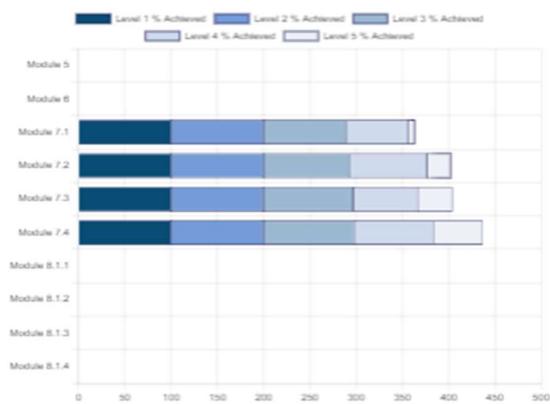
The table format is very useful for the assessment team, and the lead assessor in particular, to monitor in real-time the progress of the assessment. The assessment will be complete and its results final, only after all modules have been assessed 100%. It is possible to change the target level in the table and to dynamically see the changes in the radar chart.



The radar chart displays the achieved level (sky blue line) versus the target maturity level for each module (dark blue line). It is useful to visualize the gap between where the organization is versus where it wants to be.

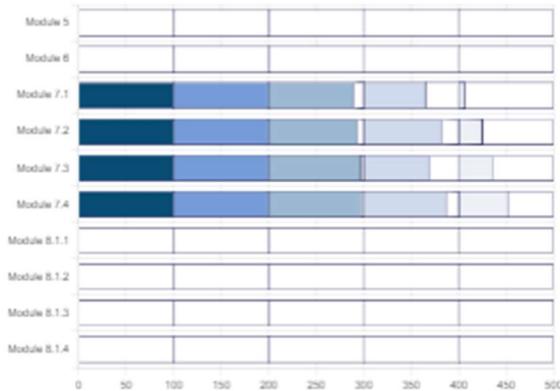
In this example, target Maturity Level 4 was set for most modules, with two modules targeted at Maturity Level 5.

At this stage of the assessment (not yet completed), the chart shows that four modules have reached Maturity Level 3, but none has reached the target.



Both bar charts shown here on the left give details of the percentage achieved for each of the five maturity levels for each module.

The chart on the top shows with each bar the cumulative percentage reached for each module, with the contributions from each level. It also indicates how far a certain module is from reaching the full score of 100% for the five maturity levels.



The chart on the bottom shows how far the achievement of each maturity level is from the full score of 100%.

It is possible to toggle between the radar chart and bar charts by using the buttons shown to the right.

Achieved vs Target Percentage Level Achieved

4.9. Provide Feedback

The “Provide feedback” feature is critical for the IAQG to collect suggestions for improvement from all organizations using the AIMM worldwide; therefore, user feedback is strongly encouraged.

When clicking on this option, the window on the right appears, inviting the user to provide three types of feedback:

- Assessment results.
- Suggestions for improvement of the AIMM and associated criteria.
- Problems and suggestions for improvement of the AIMM online application.
- General level of satisfaction concerning the AIMM experience, the AIMM application, and the supporting documentation.

4.9.1. Assessment Results

By clicking on the left tile, the following window appears:

Name	Created	Updated	User	Version	Translation
<input checked="" type="radio"/> Test feedback provision	05/13/21	06/12/21	Roberto Ciaschi	1.01	ENG
<input type="radio"/> Demo assessment	04/28/21	06/02/21	Roberto Ciaschi	1.01	ENG

Do you consent to provide the following self-assessment results for the selected assessment, to be used for statistical purposes in an anonymous manner?

- Achieved maturity levels vs target levels (tabular form)
- % achieved for each level for assessed modules (tabular form)

Note: This consent is valid only for this assessment.

Yes No

The user can choose the assessment for which he/she accepts to provide the results (i.e., the achieved maturity levels versus targets and the percentage of achievement of the criteria per maturity level) in a fully anonymous and voluntary manner.

NOTE: If the chosen assessment has been created with an additional level of encryption, the user must enter the Pass Phrase defined upon registration to allow the transfer of the assessment results to the IAQG.

This type of data can assist the IAQG and ASD industry in numerous ways (e.g., by improving the 9100 standard, supporting documentation, the certification process, the AIMM approach).

The trend in average maturity over years, or the correlation between certification and QMS maturity are other examples of information that can be derived from this type of feedback.

4.9.2. Feedback on the Maturity Model and Criteria

By clicking on the second tile, the user is given the opportunity to provide detailed feedback on any module, its expected outcomes, and maturity level criteria. After indicating the location of the comment, the user can describe in free text the issue and the proposed improvement, and submit it to the IAQG by a simple click.

It is possible to save the comments at any points and retrieve them later.

Maturity Model and Criteria Feedback

Instructions:

1. Make a separate entry for each comment.
2. Under ROW, please enter the row number (x/y) provided by the AIMM application.
3. For general comments, location information may be omitted.

Module Version : 1.0

Version	Module	Clause/Sub-Clause	Row	Level	Comment (e.g., issue, rationale)	Proposed Change		
1.0	4	4.1		2	3	Meaning unclear		

Important note: There is another very convenient method to provide your comments. If you click a module on the AIMM Study page, you will see all expected outcomes and respective maturity criteria. You can enter comments using the pop-up form available for each criterion. After you finish, you can transfer these comments into the table above.

You can continue editing the table after the transfer.

Tip: In the “AIMM Study” page, it is possible to enter comments (e.g., issues, proposals for improvement) by using the pop-up form available for each criterion, and then transferring these comments into the table from this feedback window.

4.9.3. Feedback on the Online Application

By clicking on the third tile, the user can provide specific and detailed observations resulting from the use of the AIMM online application and any suggestions for improvement.

AIMM Website Feedback

Instructions:

1. Make a separate entry for each comment.

Page	Function	Version	Observation	Suggestion		

4.9.4. General Level of Satisfaction with the AIMM

Clicking on the rightmost tile opens a survey that the user can complete to provide feedback on its general degree of satisfaction with the various AIMM deliverables, comments, and proposals. The survey takes approximately 10 minutes to complete and is sent directly to the IAQG, once completed.

As stated above, all feedback will be logged, analyzed, and dispositioned by the AIMM team in order to improve the model, the online application, and the supporting documentation (as necessary); the originators will be informed of the actions taken.