

chain improve its quality performance through a better understanding of ASD industry QMS requirements and expectations. The SCMh sections are structured around the seven elements of a supply chain business process model, covering the entire product life cycle (see Figure 4, p. 71).⁴

Using improvement standards

ISO and ASD requirement standards, such as ISO 9001 and the AS9100-series of standards, set the minimum expectations for effective organizational performance. These standards do not stand alone—they have a complete suite of improvement standards. The ISO and ASD improvement standards and tools can be applied to any organization, regardless of industry. These standards include ISO/Technical Specification (TS) 9002, ISO 9004, the ISO 10000-series and AS9100-series of improvement documents. Organizations embarking on new processes or improving existing ones should examine these standards to understand global industry expectations.

ISO/TS 9002 provides guidance, with a clause-by-clause correlation to clauses 4 through 10 of ISO 9001:2015 to aid users in understanding requirements. It also provides guidance and examples of what an organization can do—it is not intended for audit or evaluation purposes. ISO/TS 9002 is an excellent guidance document that does not add new requirements to ISO 9001.

Previous Standard Issues columns offer additional details on these topics:

- + ISO 9004.⁵
- + ISO 10000 series of standards.⁶
- + AS9100 series of standards.⁷

Using maturity criteria

Many ISO and AS9100-series certified organizations receive feedback from their internal and certification body audits about which aspects of their QMS conform or don't conform to the standard requirements. Nonconforming evaluation results certainly generate improvement opportunities, but how can organizations improve QMS effectiveness that is deemed conforming? By assessing their processes against maturity model criteria and taking actions to get to higher levels of maturity.

These maturity models are included in the ISO 9004 Annex A self-assessment tool and the new IAQG aerospace improvement maturity model (see Figure 5). These maturity models can be focused on a particular activity or applied to the entire QMS. Certified and noncertified organizations can apply these maturity models to measure and improve the performance and effectiveness of their QMS.

Get the most out of it

An effectively implemented QMS is directly tied to organizational performance and future sustainability. As discussed earlier, many tools are available to help organizations identify improvement opportunities in their QMSs through QMS certification and improvement standards, and by understanding requirements, assessing and improving process maturity, and leveraging published support materials. Organizations must leverage these resources to improve their QMSs to ensure they effectively meet business needs and achieve the full benefit of a QMS after certification. [QP](#)

NOTE AND REFERENCES

1. The AS9100 series of standards includes *AS9100—Quality Management Systems—Requirements for Aviation, Space and Defense Organizations*; *AS9110—Quality Management Systems—Requirements for Aviation Maintenance Organizations*; and *AS9120—Quality Management Systems—Requirements for Aviation, Space and Defense Distributors*.
2. International Organization for Standardization (ISO), "ISO/TC 176: Quality management and quality assurance," <https://committee.iso.org/home/tc176>.
3. International Aerospace Quality Group (IAQG), 9100:2016 Support Materials, www.iaqg.org.
4. IAQG, "Supply Chain Management Handbook," <https://tinyurl.com/y56twszf>.
5. Isaac Sheps and Pierre L'Espérance, "A Standard's Evolution," *Quality Progress*, August 2018, pp. 51–56.
6. L.L. "Buddy" Cressionnie and Paul Palmes, "A Well-Known Secret," *Quality Progress*, November 2018, pp. 50–52.
7. L.L. "Buddy" Cressionnie, "The Complete Package," *Quality Progress*, May 2019, pp. 52–55.



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