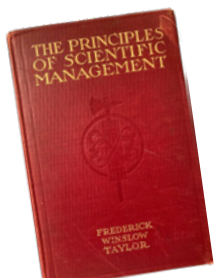


THE HISTORY OF QMS

Explore the evolution of the quality management system (QMS) from its origin as an inspection tool to today's cloud-based software-as-a-service (SaaS) platform, which helps highly regulated companies streamline compliance and achieve commercialization success.



1910

Frederick Taylor introduces "The Principles of Scientific Management," which focuses on increasing productivity and profitability while reducing physical strain on workers.¹



1924

Walter Shewhart proposes a method for statistical quality control and the use of control charts, which become the foundation for lean manufacturing and Six Sigma. Shewhart's methods also serve as the basis for the Plan-Do-Check-Act (PDCA) cycle.²



1939

Engineer and statistician, William Deming, applies Shewhart's methods to manufacturing during World War II.³



1946

American Society for Quality Control (ASQC) is established and later becomes known as the American Society of Quality (ASQ).

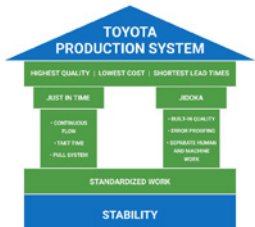


1950s

Joseph M. Juran publishes the "Quality Control Handbook," which is considered the authoritative resource for quality management. Juran's quality management approach is based on the Pareto principle (i.e., 80/20 rule), management theory, and the Juran Trilogy (i.e., quality planning, quality control, and quality improvement).⁴



Japan enlists the help of Joseph Juran and William Deming to adopt quality management practices that lead to the reconstruction of the country's post-war economy.



Toyota Motor Corporation introduces the Toyota Production System (TPS), which serves as the precursor for lean manufacturing.⁵



1960s

Armand V. Feigenbaum, founder and President of General System Co., introduces the concepts of total quality control, quality costs, and hidden plant, which lay the foundation for total quality management (TQM).⁶



Japanese organizational theorist and professor, Kaoru Ishikawa, introduces the concept of quality circles, which empowered workers in Japan to resolve quality issues.



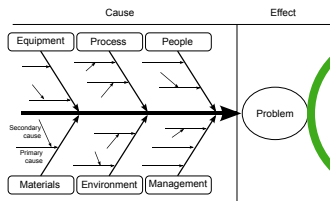
Early 1970s

Taiichi Ohno develops the concept of just-in-time (JIT) within Toyota manufacturing plants as a means of meeting consumer demands with minimum delays.⁷



1979

In response to the U.S. quality crisis, Philip Crosby publishes book entitled "Quality is Free." It introduces the concepts of "doing it right the first time" (DIRFT) and zero defects.⁸



1982

Kaoru Ishikawa develops the cause-and-effect diagram (also known as the "fishbone" diagram), which is commonly used for quality defect prevention initiatives.⁹



1986

Motorola introduces the concept of Six Sigma, which focuses on enhancing efficiency. It also employs a data-driven methodology called DMAIC (Define-Measure-Analyze-Improve-Control).¹⁰



2000

International Organization for Standardization introduces ISO 9000 quality management series, which serves as the foundation for many of today's quality management systems.



Today

Organizations are transitioning from binders and other manual systems to cloud-based enterprise quality management system (eQMS) solutions. This digital transformation breaks down data silos and communication gaps to help cross-functional teams quickly resolve quality issues and drive continuous improvement.



Product-centric cloud solutions like Arena QMS connect training records, CAPAs, and other quality records to the product design in a single system—enabling cross-functional teams to document and track quality processes that are essential for meeting FDA, ISO, EU MDR, and other regulatory standards.

References

- <https://www.qad.com/blog/2018/04/frederick-winslow-taylor-scientific-management>
- <https://www.leansixsigmadefinition.com/glossary/walter-shewhart/>
- <https://www.bluk.com/people/w-edwards-deming>
- <https://www.juran.com/blog/the-history-of-quality/>
- <https://www.leansixsigmadefinition.com/glossary/toyota-production-system/>
- <https://www.qualitygurus.com/armand-v-feigenbaum/>
- <https://www.ifm.eng.cam.ac.uk/research/dstools/jit-just-in-time-manufacturing/>
- https://en.wikipedia.org/wiki/Philip_B._Crosby
- https://en.wikipedia.org/wiki/Kaoru_Ishikawa
- <https://www.6sigma.us/six-sigma-articles/six-sigma-its-origin-and-meaning/>

See how Arena QMS can help you get compliant products to market faster

REQUEST A DEMO →