



How the Federal Acquisition Regulation (F.A.R.) Supports Process Improvement and Quality in the Era of AI

What is the F.A.R.?

The Federal Acquisition Regulation (F.A.R.) is the primary set of rules used by federal executive agencies in the United States for procurement. It ensures:

Standardization

Transparency

Quality Control

Contractor Accountability



[View the FAR System on Acquisition.gov](https://www.acquisition.gov)

F.A.R. and Process Improvement

1

Standardization

FAR enforces consistent acquisition processes, reducing variability and enabling repeatable, auditable procedures.

2

Quality Assurance (FAR Subpart 46.1)

Mandates performance evaluations, inspections, and compliance.

Promotes use of ISO 9001, AS9100, and Lean Six Sigma practices.

3

Contractor Accountability

Performance reports like CPARS (Contractor Performance Assessment Reporting System) hold vendors to high standards.

4

Incentivizing Innovation

Performance-based contracts reward efficiency, not just low costs.

5

Continuous Feedback Loops

Audits and corrective actions support continuous process improvement (DMAIC, PDCA).



Real-World Example: Boeing & DLA

Agency

Defense Logistics Agency

Contractor

Boeing

Outcome

Lean Six Sigma applied under FAR compliance led to:

- 25% reduction in aircraft part delivery delays
- Enhanced quality reporting
- Cost savings for the government



Source: Boeing Lean Practices for Government Contracts (Defense Acquisition University)



F.A.R. in the Age of AI



Bias & Risk Mitigation

FAR ensures AI tools are ethically and legally compliant.



Data Governance

Mandates traceability, transparency, and ethical data use in AI models



Transparency and Trust

Aligns with AI explainability requirements.



Enabling AI-Driven Efficiency

AI-enhanced QA systems must still meet FAR's standards, integrating automation into Lean and Six Sigma frameworks.

Final Thought

The FAR is not just a compliance tool—it is a strategic enabler of quality and innovation. With AI transforming procurement, adhering to FAR ensures safe, ethical, and efficient implementation of advanced technologies while maintaining public trust.



Key FAR Articles Supporting Process Improvement & Quality

FAR Subpart 46.1 – Quality Assurance

Link: [FAR 46.1 – Quality Assurance](#)

Relevance: Sets the foundation for contractor quality control, government inspections, and quality requirements.

Why It Matters: It mandates quality assurance surveillance plans and corrective actions, supporting Lean Six Sigma and continuous improvement programs.

FAR Subpart 34.2 – Earned Value Management System (EVMS)

Link: [FAR 34.2 – EVMS](#)

Relevance: Requires contractors to track cost, schedule, and performance.

Why It Matters: Enables data-driven decision-making and performance tracking—foundational for AI integration and improvement analysis.

FAR 9.104 – Standards for Responsible Prospective Contractors

Link: [FAR 9.104](#)

Relevance: Requires contractors to have adequate financial resources, performance records, and quality assurance standards.

Why It Matters: Encourages companies to adopt structured quality systems and improve performance metrics.

FAR 10.001 – Market Research Requirements

Link: [FAR 10.001](#)

Relevance: Encourages market research to support innovation and quality enhancements.

Why It Matters: Helps acquisition teams evaluate AI-based solutions and emerging process improvement tools.

FAR Subpart 15.101 – Best Value Continuum

Link: [FAR 15.101](#)

Relevance: Supports using performance, innovation, and technical excellence—not just lowest price—as evaluation criteria.

Why It Matters: Incentivizes innovation, including AI-based quality improvement, and continuous process improvement in proposals.

FAR Subpart 37.6 – Performance-Based Acquisition

Link: [FAR 37.6](#)

Relevance: Emphasizes measurable outcomes and performance metrics in service acquisition.

Why It Matters: Promotes continual improvement, aligning with quality standards and automated performance tracking through AI.

Summary Table

FAR Section	Focus Area	Supports
FAR 46.1	Quality Assurance	Inspections, corrective actions
FAR 9.104	Contractor Responsibility	QA systems, past performance
FAR 15.101	Best Value	Innovation, technical excellence
FAR 34.2	Earned Value	Data-driven improvement
FAR 10.001	Market Research	Adoption of new tech like AI
FAR 37.6	Performance-Based Acquisition	Measurable results, efficiency