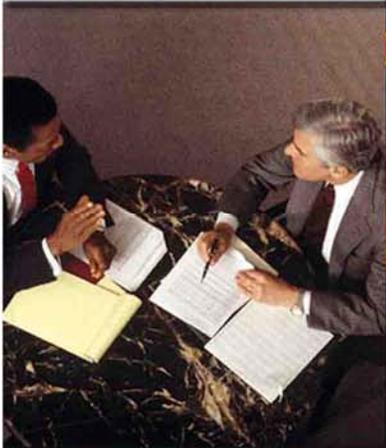


Establishing a Corporate Quality Center of Excellence (CoE)



Anita Carlos
Vice President for Quality Assurance

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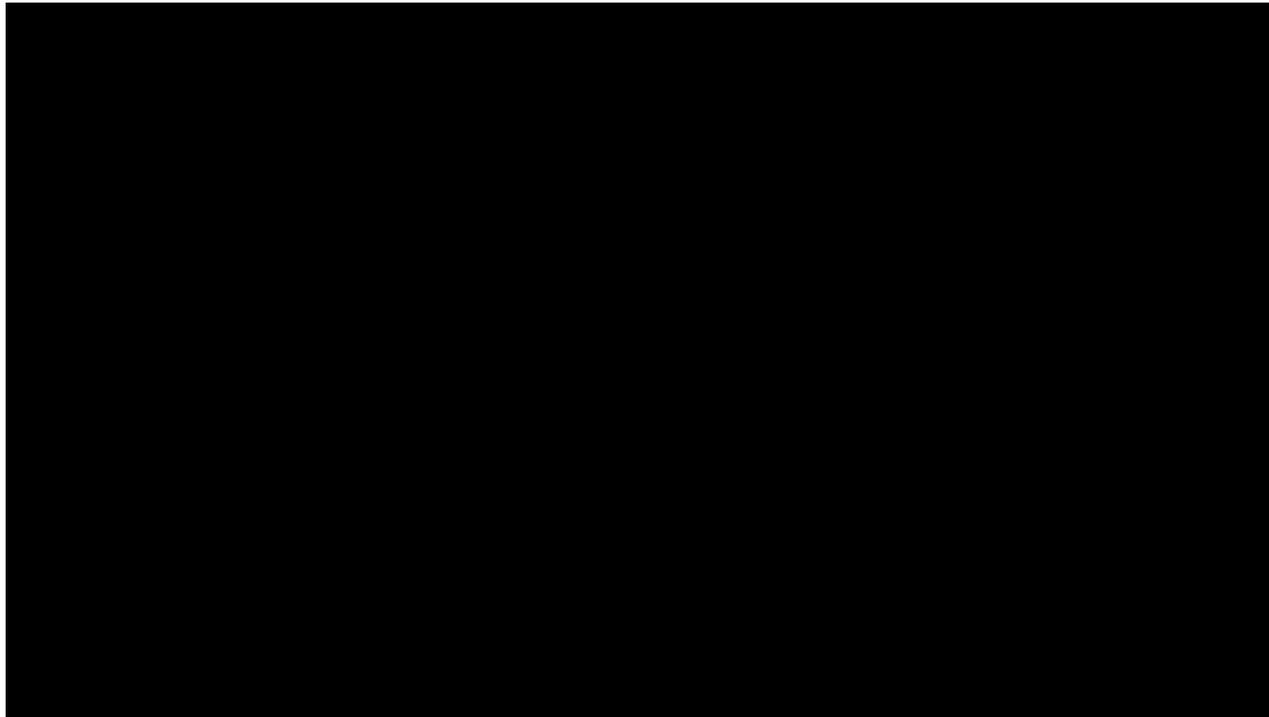
- **SAIC Overview**
- **The Idea – Proposing the Quality CoE**
- **The Implementation**
- **Communicating the Quality CoE**
- **Maintaining the Quality CoE**
- **Lessons Learned**

SAIC Overview

We Take It Personally

**Our vision, values and exceptional people
contribute to our success**

From Science to Solutions



For almost four decades, Science Applications International Corporation (SAIC) has created solutions to complex technical challenges worldwide. A Fortune 500® corporation, we are one of the leading systems, solutions and technical services companies worldwide.

Our Core Values & Purpose



Our Successes

37 years of continuous growth

- λ \$8.3 billion in annual revenues for FY 2007
- λ Fortune 500® company – #298

Superb staff of qualified professionals

- λ More than 44,000 personnel worldwide
- λ 10,000 employees with advanced degrees
- λ 19,000 with security clearances

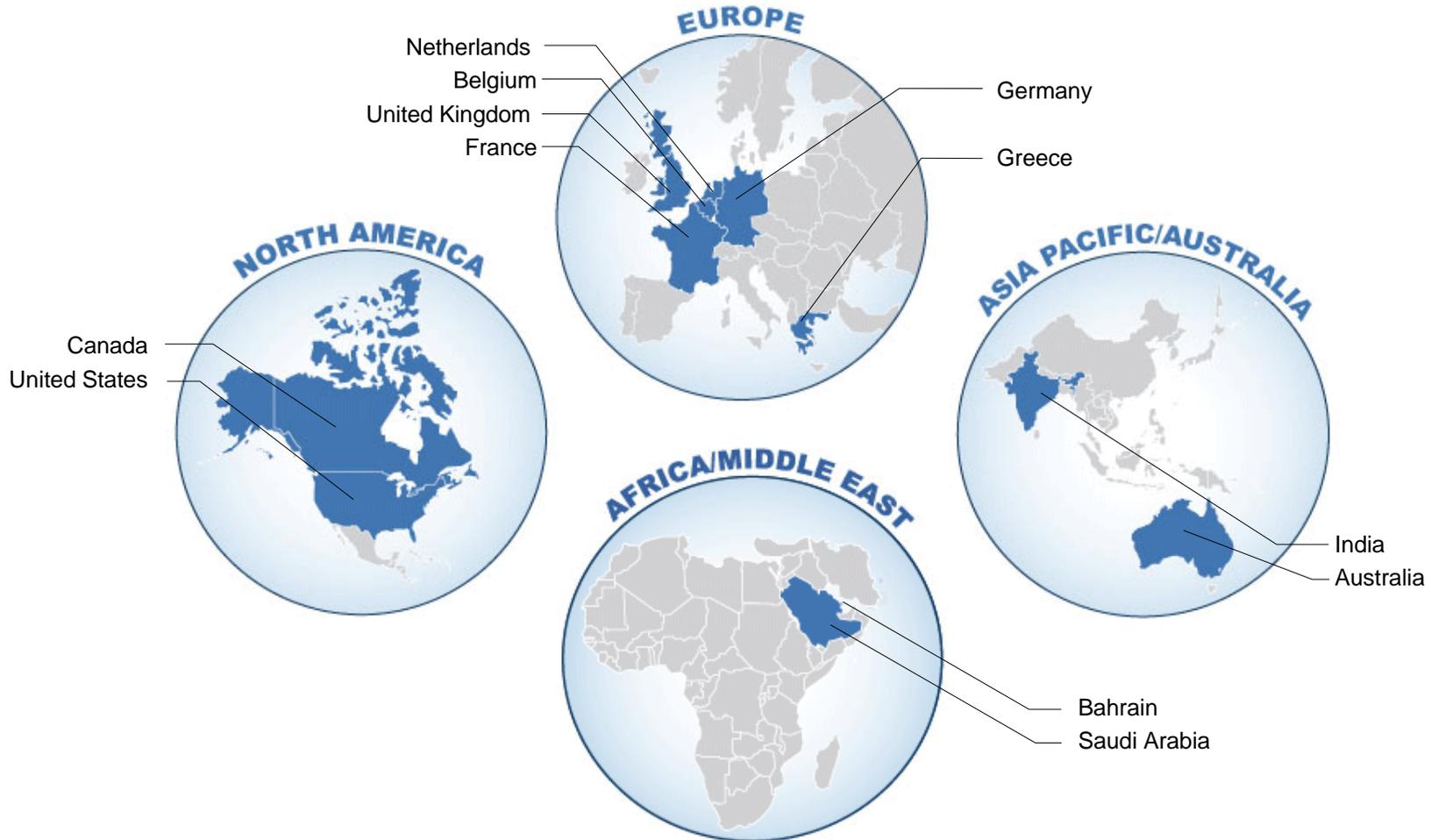
Key positions on initiatives of national importance

- λ National security
- λ Intelligence
- λ Homeland defense
- λ Cancer research

Leading provider of contracted R&D services

All figures current as of April 2007.

Global Delivery Capabilities



Military procurements don't often get perfect grades, especially when they're as complex and vast as the Army's Future Combat Systems (FCS). Under the leadership and commitment of SAIC and Boeing, FCS did just that in 2005.

– We take it personally

Future Combat Systems

SAIC shares lead systems integrator status with The Boeing Company on the Department of Defense's (DoD's) second-largest program – Future Combat Systems. FCS is the Army's principal transformation program and will be the foundation of a rapidly deployable, network-centric force



Global Information Grid-Bandwidth Expansion

SAIC broke new ground in optical mesh technology and inserted high-speed, high-capacity fiber backbone to provide a global, complex network solution in DoD's worldwide information network



Navy "Seaport" Systems Support

SAIC is one of the leaders in prime awards since April 2004 supporting significant system modernization in major Navy commands



Whether they're wearing 40 pounds of body armor in the 110-degree Iraqi desert or developing ways to extract intelligence data, SAIC employees work shoulder to shoulder with intelligence and military personnel to help fight the war on terrorism.

– We take it personally



Joint Intelligence Operations Capability-Iraq (JIOC-I)
SAIC is a vital integrator helping DoD implement its vision and architecture for fusing national and tactical intelligence in Iraq



Information Assurance
SAIC is a key non-hardware solutions provider within the intelligence community directly supporting customer strategies



Coast Guard 24/7 Watch Program
SAIC supports the entire range of Coast Guard intelligence requirements, from the Commandant's daily briefings to intelligence and information systems support

Logistics and Product Support



A roadside bombing stops a convoy carrying emergency fuel to a supply depot. Using SAIC technology, the logistics commander has the information at hand to find and divert another convoy in time.

– We take it personally



DLA Prime Vendor

SAIC is DLA's largest prime vendor for maintenance, repair and operations (MRO) material, and manages the supply chains for U.S. Army vehicle and U.S. Navy aviation spare parts.



Federal Traffic Management

SAIC supports Federal Highway Administration and Federal Motor Carrier Safety Administration by developing and fielding solutions that reduce highway congestion and improve motorist safety



DLA Asset Visibility

SAIC provides worldwide asset visibility and location tracking of material for all Services through a Web-enabled network of information servers

When a hijacked Boeing 757 slammed into the Pentagon on September 11, 2001, SAIC staff joined others in risking their lives to help others escape the burning building.

– We take it personally



Integrated Container Information System (ICIS)

ICIS provides an integrated state-of-the-art system solution to the shipping industry's challenge of enhancing container security with minimal impact to the flow of commerce



BioSense

SAIC is working with the Centers for Disease Control and Prevention to develop a national biosurveillance infrastructure to improve early detection of major disease outbreaks and bioterrorism attacks



IT Engineering Support Services (ITESS)

SAIC is the Department of Homeland Security's prime contractor under ITESS, the systems management and integration contract supporting Immigration and Customs Enforcement (ICE) and Citizenship and Immigration Services (CIS) efforts

Working with multidisciplinary teams, SAIC supports NASA's "Return to Flight" for the Space Shuttle, along with global warming and weather warning systems.

– We take it personally



Pat Rawlings Photo

NASA Space Flight Operations

SAIC provides safety, reliability, maintainability and quality support for the International Space Station and Space Shuttle programs



NASA Studies and Assessments

SAIC is the prime contractor for engineering and cost analyses, concept study evaluations and independent assessment supporting NASA's Earth and Space Science acquisition programs



National Data Buoy Center Support

SAIC is the prime contractor supporting NOAA Marine Observation Network and Deep-ocean Assessment and Reporting of Tsunamis (DART) systems

Health and Life Sciences



Working with the National Cancer Institute to aid research, SAIC helps manufacture potential vaccines for testing against malaria, HIV, anthrax, Ebola, West Nile virus and influenza. We also aid research in new drug delivery devices, including nanotechnology devices, to deliver cancer therapeutic agents at the cellular level.

– We take it personally



Cancer and AIDS Research

SAIC operates a world-class cancer/AIDS research facility for the National Cancer Institute in Frederick, Md., and designed and built a cutting-edge cancer research and collaboration computing grid



Military Health Systems Support

SAIC is the prime contractor for site operation IT support for clinical systems at military treatment facilities worldwide and has supported those systems for 20 years



National Library of Medicine

In support of the NIH, SAIC microbiologists conducted scientific data analysis, data processing and quality assurance for the production and maintenance of GenBank, the nucleotide sequence database

Hurricanes Katrina and Rita destroyed communities and infrastructure when they crashed into the Gulf Coast. Three hundred SAIC professionals worked beside employees from the primary power company in the region to restore vital power across Mississippi, Louisiana and Texas.



Next Generation Oilfield

– We take it personally

SAIC is the prime contractor providing consulting and systems integration support to some of the world's top oil and gas companies and their tier-one suppliers to develop cutting-edge IT to support the oilfield of the future



IT Professional Services

SAIC is a major provider of IT outsourcing, systems integration and business consulting for leading biopharmaceutical and energy companies



Environmental Services

SAIC provides environmental engineering, consulting and remediation services to Fortune 500® companies

Imagine an aircraft so advanced and complex that SAIC engineers had to invent entirely new instruments and experiments to test its capabilities. That aircraft is the F-22A Raptor, perhaps the most technologically advanced aircraft in the world.

– We take it personally



Carnegie Mellon Photo

DARPA Grand Challenge

SAIC, with Carnegie Mellon University, had two of the top three finishers in the 136-mile race for fully autonomous vehicles, where our vehicles learned throughout the journey



Geospatial Information

SAIC exploits multiple geospatial data types for many uses, including national and tactical geospatial intelligence (GEOINT), natural resource utilization, environmental analysis and disaster response



Cognitive Applications

Using tools like Bayesian and neural networks, conceptual graphs and machine learning, SAIC is blurring the man-machine interface to improve future system capability, efficiency and reliability

The Idea – Proposing the Quality CoE

- **In an e-mail to a Business Unit Manager, a proposal team member – a Senior Engineer– stated the following:**
 - SAIC should create a Quality Center of Excellence built around the team of Anita Carlos' QA/CM/DM organization and make it into an industry leading Quality Center.
 - SAIC should cite this center in all future bids for performance-based acquisitions and leverage its knowledge and skills within SAIC (and to other entities).
- **Corporate Quality Manager, inquired about the pros and cons of implementing a Quality Center of Excellence. Answers to those inquires follows.....**

Define what the end state looks like to you. If the Center was up and running now, what would it look like?



The Quality Center of Excellence (Q CoE) would be an official virtual resource command center for quality assurance and quality control with an established charter, mission, and goals.

Define what the end state looks like to you. If the Center was up and running now, what would it look like? (1 of 2)



- **The command center would be manned by knowledgeable QA personnel to:**
 - Established a Steering Committee
 - Identify subject matter experts required.
 - Provide recommendations and/or examples of QA approaches.
 - Recommend appropriate QA tools, processes, and procedures.
 - Provide consistent and reliable QA information.
 - Provide a repository of examples of quality control plans, quality assurance management plans, quality assurance surveillance plans, checklists, templates, etc.
 - Set up Web chat room and/or bulletin board sites to share best practices and lessons learned.
 - Provide information about the latest quality advances/theories.
 - Share best practices.
 - Cite the Quality Center of Excellence in all future bids, performance-based acquisitions, proposals, and execution services.
 - Establish the COE brand using a custom designed logo.
 - Create a corporate commitment to quality statement explaining “Why Quality Assurance?”
 - Highlight SAIC quality assurance personnel.
 - Provide consultant service and serve as a resource of information to project managers and proposal teams.
 - Provide teams that can be deployed to assist with assessments and proposals
 - Support any program’s quality needs for compliance to standards such as CMMI, ISO9000, AS9100, etc.

Define what the end state looks like to you. If the Center was up and running now, what would it look like? (2 of 2)



- **Conduit to link all the QA staffs across the company in a forum to share practices and supporting each other in establishing good QA throughout the company.**
- **Provide career planning for employees interested in the field of quality.**
- **Provide information about the “cost of quality” to implement good QA practices. For example:**
 - Provide ratio of QA budget/hours to the amount of engineering budget/hours or the ration of QA budget/hours to the amount of overall programmatic hours including PM, CM, PC, and engineering.
 - Provide guidelines or references for rations of QA budget/hours to perform and/or support process engineering.
 - Show data of QA performing at a “cost center” level versus a “direct or profit center” level.
 - Share recommendations about how to reduce the cost of quality while retaining creditable QA practices.

Is the Center a virtual-only place or is there an associated physical entity?



- **The QA COE would be a virtual-only environment.**
- **In unique situations, face-to-face or teleconferencing meeting may be appropriate.**

What are the products you want to have available in the Center?



- **Provide examples of:**

- Quality Assurance Plans
- Quality Control Plans
- Quality Assurance Surveillance Plans
- Performance-Based Acquisition Documents
- Product Review Checklists
- Process Audit Checklists
- Standard Templates for QA Products

- **Provide information about:**

- Quality Assurance Certification
- Six Sigma Information
- QA Procedures That Can Easily be Tailored
- QA Web sites, links, and URLs
 - <http://www.isixsigma.com/offsite.sap>
 - www.asq.org

- **QA Training:**

- On-demand Web cast of QA training classes (e.g., Fast Track, PDHs)

What Interface Should Link to the Center? PIE? SSPAL? QPAL?



- **ASQ**
- **QAI**
- **PIE**
- **SSPAL**
- **IEEE**
- **SEI**
- **Six Sigma**

Should the center also embrace process improvement, Six Sigma, Lean, etc. or stick with basic quality items to start with (and expand) later?



- **Suggest at the initial implementation of the Center that we stick with the basic quality items and provide quality recommendations.**
- **For future consideration, develop a plan to get people on board to either train or coordinate the training for process improvement, Six Sigma, Lean, etc.**
- **Certification would promote QA standardization across SAIC and let the Government and Commercial customers know that SAIC is serious about quality.**
- **Encourage SAIC QA to advance beyond CMMI assessments and focus on winning other prestige awards (e.g., Malcolm Baldrige National Quality Award).**

Who are the SAIC SMEs in various areas that can or should help?



- **Anita Carlos' QA/CM/PI Staff.**
- **Company-wide QA Directors; much can be learned from other organization's QA personnel.**
- **Solicitation of SAIC QA staffs to assist with this endeavor.**

What are your time and material guesstimates to (1) get started, (2) get through first phase, and (3) run Center for first year?



- **Basis of Estimate will need to be development**
- **Items to consider:**
 - It could take 3 - 6 months for getting started and getting through the first phase
 - Corporate IT
 - Setup
 - Maintenance

The Implementation

- **Home Page**
- **Collaboration Space**
- **ISO 9000**
- **Training and Certification**
- **Points of Contact**
- **Related Sites**

SAIC Community of Practice (CoP) 
Quality Center of Excellence (Q CoE)

Welcome to the Quality Center of Excellence (Q CoE)

[Home](#)

[Charter](#)

[Collaboration Space](#)

[ISO 9000](#)

[Training and
Certification](#)

[Points of Contact](#)

[Related Sites](#)

The Quality Center of Excellence (Q CoE) provides a forum for the community of SAIC quality practitioners to exchange knowledge, experience and ideas. A document repository is available to support proposals and programs. Practitioners can share quality issues on the Q CoE collaboration site.



Collaboration Space Lesson (1 of 3)



- An online library of quality material including the corporate Quality System Manual and a discussion forum for the community of SAIC quality practitioners to exchange knowledge, experience and ideas.

Q CoE's Collaboration Space
Home

This collaboration space provides a place where you can collaborate on topics and documents regarding the Quality Center of Excellence (Q CoE) Community of Practice.

Documents
Products & Tools

Pictures

Lists
Contacts
Events

Discussions
Discussions

Surveys
SURVEY - Learning the Basics about Six Sigma

Products & Tools

Corporate Quality Systems Manual	Will, Amber C.
SAIC Certifications and Registrations	Clemons, David
Configuration Management Certification	Hefner, Kammi K.
Plans and Reports	Olivencia, Zrain
Checklists	Olivencia, Zrain

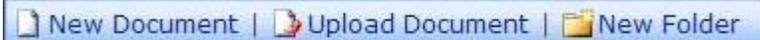
[Add new document](#)

Events

1/31/2008 12:00 AM	Agile Project Management Course (\$750) Agile Project Management Course (\$750) ... in support of SAIC's Quality Center of Excellence (CoE) the ASS BU Director of QA, Anita Henderson Carlos is offering the coordination services for obtaining a significant discount from ASPE TECHNOLOGY f its...
1/31/2008 12:00 AM	Configuration and Data Manager Professional Certification May 20-22 2008 Configuration and Data Manager Professional Certification ... in supp of SAIC's Quality Center of Exceller (CoE) the ASSET BU Director of QA Anita Henderson-Carlos is ready to offer CDM certification from NDIA http://www.ndia.org in Orlando on..
5/5/2008 7:00 AM	Get your alumni rate for the World Conference on Quality and Improvement It is time for the 2008 ASQ World Conference on Quality and Improvement where this year we :

Each topic/item/folder contains:

- **New Document** - opens MS Word and upon saving the document automatically places it within the current folder.
- **Upload Document** - opens a new window for uploading a

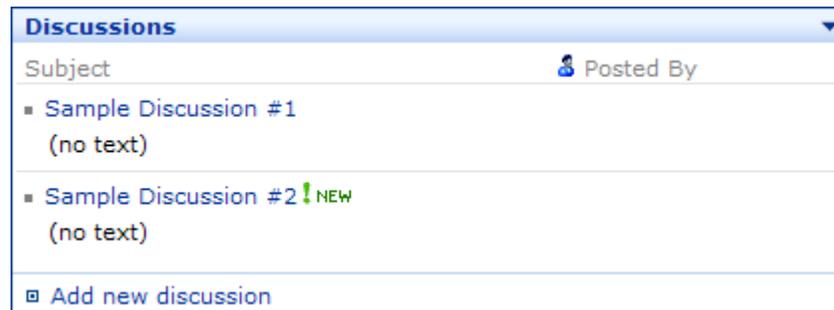


- **New Folder** - adds a new folder within the current folder.

NOTE: Your new document will not appear to all SAIC employees until it has been approved.

How to initiate a discussion:

- **Go to the collaboration site.**
- **Select the topic/item from list:**
 - **Main Discussion Folder - Discussions (Header).**
 - **Main Discussion Threads (Sample Discussion #1 and #2)**



NOTE: If you select to **Add new discussion** from the above image, it will add the discussion to the folder named in the header (i.e., Discussions)

[Home](#)[Charter](#)[Collaboration Space](#)[ISO 9000](#)[Training and Certification](#)[Points of Contact](#)[Related Sites](#)

ISO 9000

As business expands to commercial and international markets, SAIC recognizes the need to spearhead a corporate-wide effort to prepare organizations for the ISO 9001 certifi process. Please use the tools and reference information below to help in this process.

[ISO Assets on the EngineeringEdge Web Site](#)

A high quality, common set of assets to help projects and organizations pursue ISO 9001:2000 registration.

[ISO Assets on the DSG Connection Web Site](#)

High quality, Option B, ISO-registered process assets in use today in a large, multi-project environment.

[ISO Home Page \(http://www.iso.ch/iso/en/ISOOnline.frontpage\)](http://www.iso.ch/iso/en/ISOOnline.frontpage)

This is a world-wide federation of national standards bodies from 130 countries.

[SAIC ISO 9001 Quality Manual \(Collaboration Space\)](#)

Please refer to Section 6 - Quality System Manual for more detailed implementation plans and procedures.

[SAIC Facilities with ISO Registration](#) (56k)

Groups and operations with current ISO certifications.

- **Investing in one's career and future with a quality certification gives you an advantage and increases one's potential for advancement**
- **Funding options**
- **Study Sessions (requires 4-6 hours weekly)**
- **It makes good sense to get certified!**
- **Certifications pursued: ITIL, ASQ, NDIA, SPI, AS9100, ISO**



Communicating the Quality CoE

- **2 Corporate-wide briefings to introduce the Q CoE**
- **All 44,000 SAIC employees have access**
- **Email alerts**

Maintaining the Quality CoE

- **Upload new templates and documents (Best in Class)**
- **Support projects and proposal efforts**
- **Advertise available QA resources**
- **Continued discussions**
- **Update events (e.g. Conferences, Training opportunities, etc.)**
- **Host Quarterly Quality Managers' Forums**
 - Road to AS9100
 - QA Surveillance Plans and Performance-Based Acquisition
 - Metrics in a SEI CMMI Level 5 Organization
 - Program Execution
 - Hardware QA

- **What did we do well?**

- Clear goals and objectives
- Input from Quality practitioners

- **Where were we lucky?**

- 100% support from Corporate Quality Manager

- **What's the next steps?**

- Continue to increase visibility/users across the corporation

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THANK YOU !!!