# Introduction to the MII and KM at MITRE

Jean Tatalias October, 2006



# **Our History**

- MITRE is a private, independent, not-for-profit organization, chartered to work in the public interest
- Founded in 1958 to provide engineering and technical services to the U.S. Air Force
- Currently manages three Federally Funded Research and Development Centers – for the Department of Defense, the Federal Aviation Administration, and the Internal Revenue Service
- Supports a broad and diverse set of sponsors within the U.S. government as well as internationally





### **Our Mission and Our Goals**

As a public interest company, MITRE works in partnership with the government, applying systems engineering and advanced technology to address issues of critical national importance.

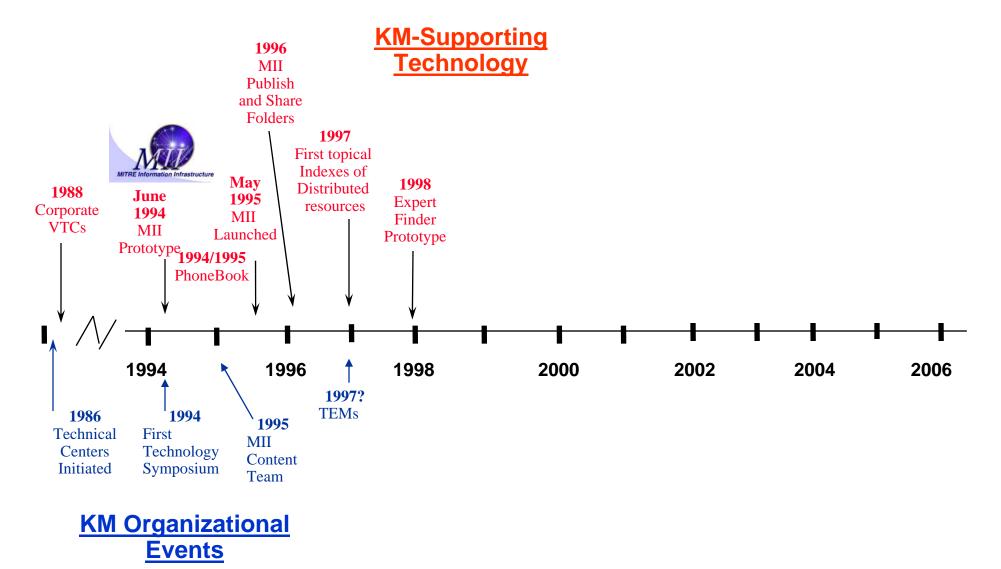
To accomplish our mission, we will devote our energy, resources, and skills to:

- Focus on the nation's most critical needs
- Become more integral to our sponsors' missions
- Cultivate a highly engaged workforce and world-class environment
- Provide best-in-class value to our customers





# "Early" Milestones in "KM" History in MITRE





# What is Knowledge Management for MITRE? (1999-2000)

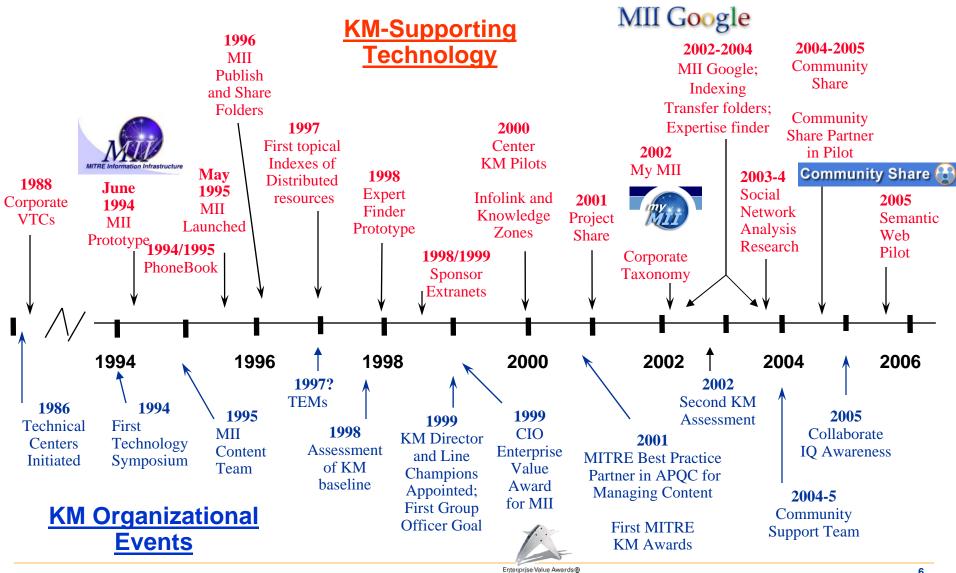
Strengthen the customer outcomes by applying the best the company has to offer

Share the accumulated corporate knowledge to leverage MITRE's FFRDC objectives

- Enable person-to-person Knowledge Exchange
  - Enhance the ability to find MITRE expertise
  - Increase the opportunity for staff to participate in person-to-person exchange
- Enable Knowledge Re-use
  - Staff can find information via the intranet for potential re-use in the work program
  - Foster innovation and enhanced learning through knowledge capture and transfer
- Enable Knowledge Capture
  - Build the corporate knowledge base and ensure knowledge capture and sharing are part of our ongoing business and technical processes.
  - Staff can find information via the intranet for potential re-use in work program



# **KM History in MITRE**



# MITRE Enterprise Architecture Goals and KM Strategy

#### \*Connect People

#### **MEA GOALS**

- Digital Integration with our Sponsors and Partners
  - "Sponsors and Partners as first-class citizens in our infospace
- Manage Our Business and Work Digitally
  - "Digitize all aspects of our business [where it makes sense]"
- Community, Collaboration and Resource Exploitation
  - "Bringing the best of MITRE to bear through net-centric collaboration and discovery"

- \*Enable and promote knowledge sharing and collaboration
- \*Support communities and teams in the way they need to work
- \*Actively manage information assets, their life-cycles, and their repositories
  - Support publishing, stewardship, protection
  - Information Life Cycle
     Management; best practice training
- \*Enable information syndication, and role/custom information delivery
- \*Continually align the information resources and the information services portfolio with business needs

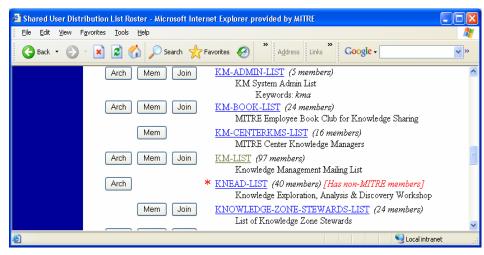
# **Types of Communities and Collaboration**

- Projects
  - Project Teams
- Organizations
  - Leveraging Technology Centers (1986 -- )
- Communities
  - Specialty groups, skill clusters, user groups, (1983 --)
  - Listservs
  - Technical Exchange Meetings (TEMs) (Late 1990s--)
  - MITRE Technology Program
  - Communities of Practice









### The Technical Exchange (TEx)

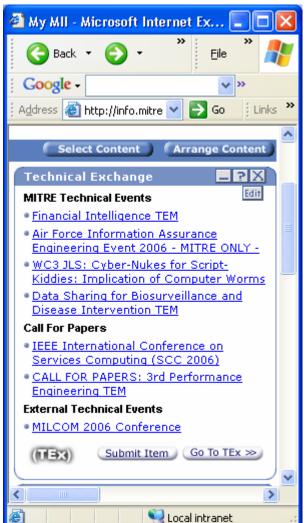
**Events for Creating and Sharing Knowledge** 

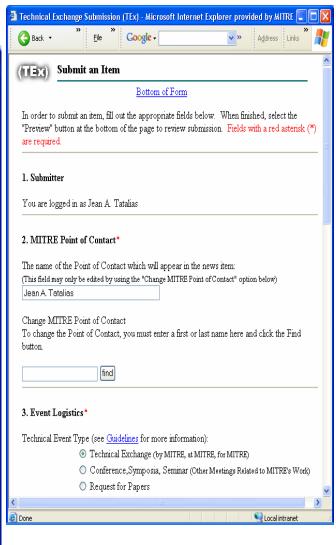
Technical Exchanges
by MITRE, at MITRE, for MITRE

Conferences, Seminars, Symposia Other Meetings Related to MITRE's Work



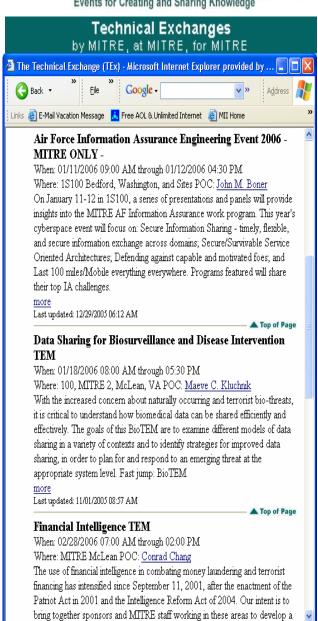
# **Technical Exchange Meetings**





#### The Technical Exchange (TEx)

**Events for Creating and Sharing Knowledge** 



🙀 Local intranet



# MITRE Technology Program Knowledge-Sharing

- Annual Technology Symposium to bring together MITRE staffers, sponsors, and academicians to review the fruits of the MITRE Technology Program.
  - "make connections between our principal investigators and the work program managers so they can explore how to apply our research in the customer's environment. By seeing the research, and interacting with the principal investigators, the customers have an opportunity to explore innovative ways of solving their problems. The symposium also enables considerable sharing among our staff, which can lead to joint ventures in which they share their knowledge."



#### MTP teams

Chief Engineers
Technology Integrators
Technology Area Teams
Principal Investigators



# **Knowledge Management Awards**



- Encourage knowledge management contributors across the organization
- Recognize individual and group efforts that demonstrate the knowledge-sharing behaviors critical to our success.

#### FROM Presidential Award Citations:

John Anderson is recognized for his leadership in cultivating and maintaining a sense of community and shared commitment across the MITRE organizations that support Enterprise Architecture and Engineering. John is a relentless knowledge sharing advocate ...

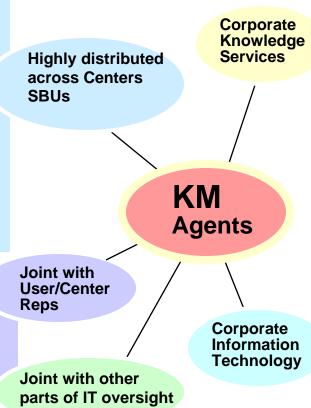
Dr. Frank Stech has shared publications and commentary through MITRE mailing lists for technical integrators, analysts, and support staffers. He has also shared ... expertise across research projects, conducted lectures and briefings for MITRE colleagues and sponsors, and ...

Dr. Donna L. Cuomo is honored for the vision and leadership that initiated the Community Share efforts, which enhanced the knowledge sharing of teams across MITRE and its partners. Through Dr. Cuomo's advocacy of MITRE's knowledge sharing capabilities, the MII ... allows staff to use MITRE's rich knowledge stores



# Distributed Roles in Knowledge Management

- Web collections stewardship
- Community Share knowledge stewardship
- Employee share stewardship
- Extranet stewardship, including customer members
- Center Knowledge Managers
- Center portals with special content
- Center applications from the "edge"
- CIO Council: Priority for Investments
- Information Policy Council
- KM award selections
- Enterprise Architecture Planning
- Information Architecture Planning
- Information Security decisions



- Community Support Team:
   SharePoint design, community set up & consultation
- Content management team: web steward support, web standards, global knowledge maps
- Fast Forward team: change management and technology best practice
- Custom Research and KM team: project support in custom knowledge work
- Digital asset management team: licenses for content
- Project leadership in KM technologies: search, community share, information life cycle
- Infodesk: on-demand help for finding information
- Records and Archives: retention policies and user support
- Corporate knowledge applications: COTS and custom
- Technical staff for Knowledge Technology Projects
- ERP systems
- MII and portal infrastructure
- Help Desk: on demand technology support
- Information Policy Implementation



System-of-systems integration and interoperability Technical Source selection requirements and acquisition and specifications management Test planning and evaluation **Analysis** Field integration System Research planning and support and Development Supportability System architecture and sustainment

# **Backup Slides**



### **Definitions**

- Knowledge Management (KM): The strategy, processes, and technology employed to enable an enterprise to acquire, create, organize, share, and make actionable knowledge needed to achieve the vision of the enterprise.
- Knowledge of technology, processes, markets, customers
- Implicit and explicit knowledge
- KM draws solutions from and contributes to multiple disciplines including
  - management science
  - information retrieval and artificial intelligence
  - social sciences, especially organizational behavior



# KM Enablers and MITRE Strategy

#### **MEA Goal 3**

Community, Collaboration and Resource Exploitation

"Bringing the best of MITRE to bear through net-centric collaboration and discovery"



Strategy:

**Connect People** 

**Manage Assets** 

**Align Services** 

Support Communities

Enable Sharing & Collaboration

Enable Search & Delivery

# **Empowering Teams: A User-Centered Perspective on the MITRE InfoSpace**

Each MITRE employee is a member of many teams, each with a different job to do ...

	Corporate "Info space" View: Generic Info Consumer				
	Search, Browse, Subscribe				
Workgroup members	Organizational Corporate Center Division Dept Group	Community of Practice  Spec Int Grps Cluster Grps Professional Interest TEMs	Projects  Sponsor Program Type Size Composition	Programs/ Initiatives Specific mission Members	Councils  Specific mission  Members

Personal and Role View: My Content, My Situational Awareness



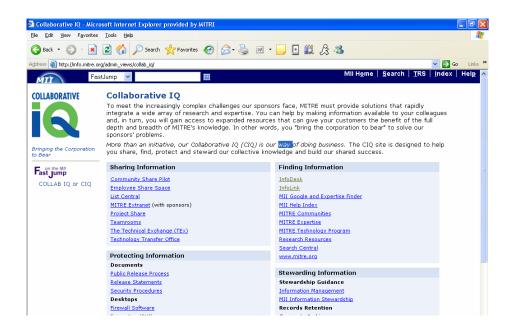
### MITRE's Collaborative IQ

# COLLABORATIVE

### What is MITRE's Collaborative IQ? (MII Fastjump: CIQ)

Making your information available to MITRE staff and gaining access to expanded resources that give customers the benefit of the full depth and breadth of MITRE's knowledge. In other words, "bringing the corporation to bear" to solve our sponsors' problems.

- 4 Key Areas:
- -Sharing Information
- -Finding Information
- -Protecting Information
- -Stewarding Information





# **Strengthening Collaboration**

