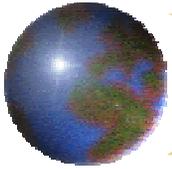


*NASA Knowledge Management  
Workshop*

January 28-February 1, 2002

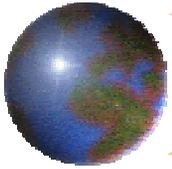


*Welcome!*

*The second annual NASA Knowledge  
Management Team workshop*

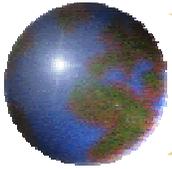
⊕ **Goals**

- Update of current activities
- Refresh *Strategic Plan*
- Create products from focus groups
- Update *Implementation Opportunities*
- Reach consensus on plans and methods



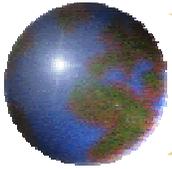
## *Tuesday Morning Schedule*

- 8:30—Welcome, goals, and introductions
- 9:00—Keynote speaker—**Tom Davenport!**
- *10:30—Break*
- 10:45—Team vision and NASA environment
  - Lee Holcomb via telecon
- *11:45—Lunch*
  - Introductions
  - Building NASA's Knowledge Map



## *Tuesday Afternoon Schedule*

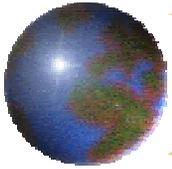
- 2:00—Portal
  - Douglas Hughes and Jayne Dutra
- 2:30—Experts' Directory
  - Steve Naus
- *3:00—Break*
- 3:15—Lessons Learned Information System
  - Jay Liebowitz and Michael Hooks
- 3:45—Summary of other KM-related activities
- 4:15— Revisiting the Strategic Plan and analyzing implementation opportunities



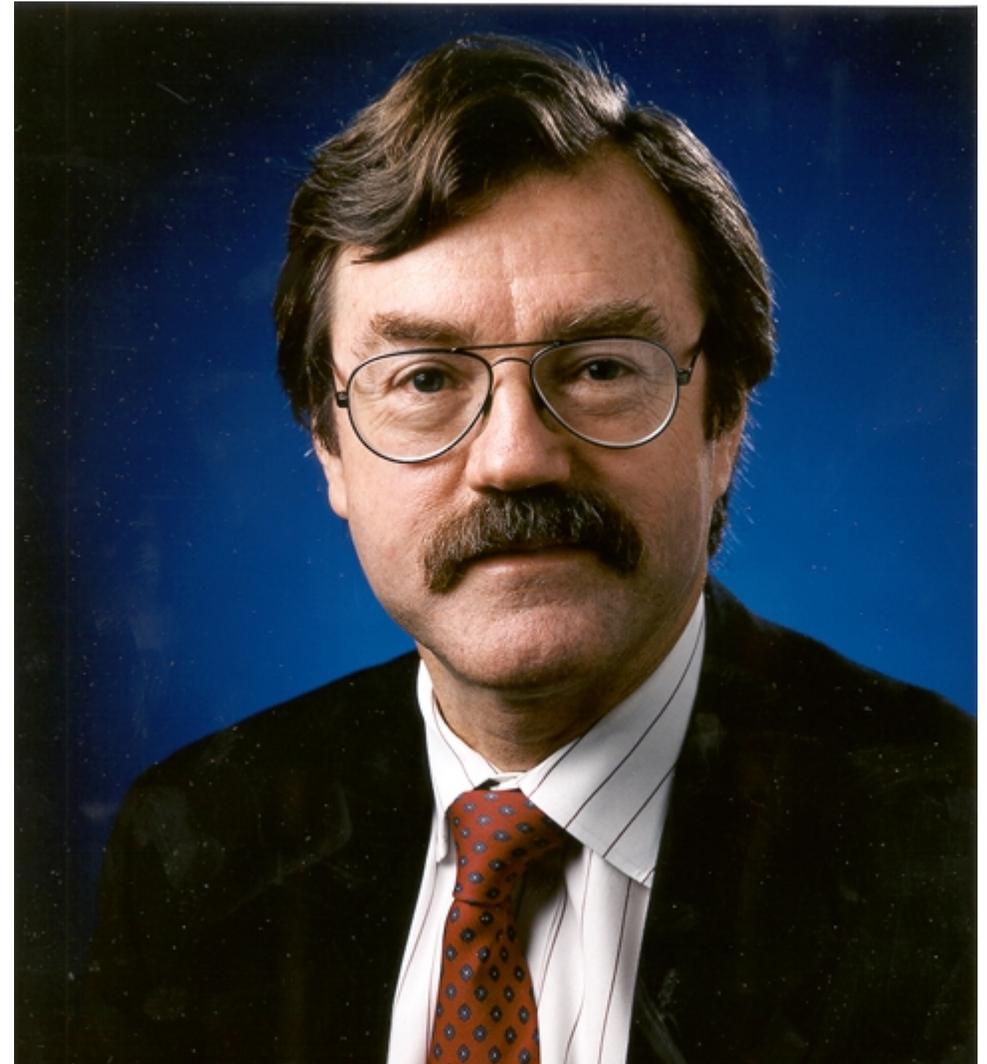
# *Knowledge Management—Past and Future*

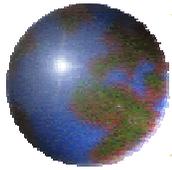
## ● Thomas Davenport

- Accenture
- *Working Knowledge* co-author
- *Harvard Business Review* case studies in KM



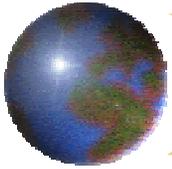
*NASA KM Champion  
Lee Holcomb, CIO*





## *Key Areas for NASA's KM Strategy*

- To sustain NASA's knowledge across missions and generations
  - KM will identify and capture the information that exists across the Agency
- To help people find, organize, and share the knowledge we already have
  - KM will efficiently manage NASA's knowledge resources
- To increase collaboration and to facilitate knowledge creation and sharing
  - KM will develop techniques and tools to enable teams and communities to collaborate across the barriers of time and space



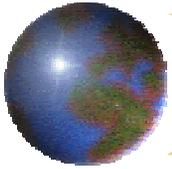
# Framework for KM at NASA

## Sharing and Using Knowledge

| People  | Process  | Technology   |
|---|--|--|
| <ul style="list-style-type: none"><li>• Enable remote collaboration</li><li>• Support communities of practice</li><li>• Reward and recognize knowledge sharing</li><li>• Encourage storytelling</li></ul> | <ul style="list-style-type: none"><li>• Enhance knowledge capture</li><li>• Manage information</li></ul> | <ul style="list-style-type: none"><li>• Enhance system integration and data mining</li><li>• Utilize intelligent agents</li><li>• Exploit expert systems</li></ul> |

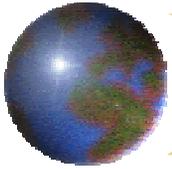
### Supporting Activities

|                        |                   |                 |          |
|------------------------|-------------------|-----------------|----------|
| Education and Training | IT Infrastructure | Human Resources | Security |
|------------------------|-------------------|-----------------|----------|



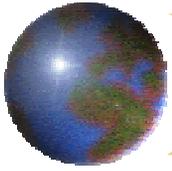
## *Themes So Far*

- Transformation
- Effect cultural change
- Identify and exploit critical knowledge
- KM for creation and innovation
- Sustaining and funding for KM
- Maturation of the field
- Knowledge networks



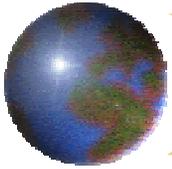
## *NASA KM Team History*

- 2000—Chartered by HQ, Code AO
  - Pilot activities started
- 2001
  - Strategic Plan published
  - Funding advocated for systems that are going operational
  - Integration with other activities (APPL, KSI, eNASA, Recognition Management Study, NIAT, PBMA, LLIS, Web Management, Publications Policy)
- 2002
  - Implementation Plan to be developed
- 2003—?



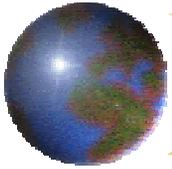
## *Introductions*

- Interview a table mate
  - Name
  - Center
  - Job
  - One-phrase job
  - Contribution
  - Dinner companion
- Introduce your new friend to the group
- Write down a fact (true or false) about yourself on a card



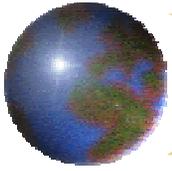
## *Knowledge Map for NASA*

- Identifying key knowledge resources
  - People
  - Processes
  - Places
  - Repositories
  - Services
- Potential uses for investment choices, taxonomies, application support, and embedding KM best practices into processes



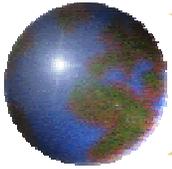
## *Framework for the Knowledge Map*

- Audience (employee, public, partner, team)
- Purpose (collaboration, outreach, efficiency)
- Discipline (science, engineering, administrative, research)
- Core competencies (NASA's version)
- Products (shuttle, station, missions, tasks)
- Other?



## *Exercise: Create the Knowledge Map*

- Select your area of interest
- Identify key resources
- Identify relationships among people, processes, and repositories
- Brief the group
- Identify overall themes and relationships



## *Ongoing KM-Related Activities: eNASA*

- ❖ Delivering value-added electronic services and information to NASA's key communities
  - ❑ Provide customer-focused capabilities
  - ❑ Leverage knowledge and capabilities
  - ❑ Transform business processes
  - ❑ Implement an environment that provides:
    - Anywhere, anytime availability
    - Security
    - Scalability
  - ❑ <http://enasa.ksc.nasa.gov>



**Partners & Suppliers**  
Industry  
Universities  
International  
Government  
Educators

**Virtual Teams**  
Programs  
Projects  
Working Groups  
Communities of  
Practice,  
Interest

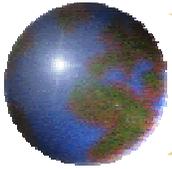
**Employees**  
Corporate  
Management  
Staff

**Public**  
General Public  
Media  
Educators  
Space Enthusiasts  
Students



**Manage Infrastructure and Shared Services**

**Deliver Community-Focused Quick Wins**



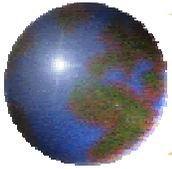
# *eNASA Recommendations*

## Customer-focused Quick Wins Respond to NASA Community Needs

- Developing applications that will make it easier for customers to find the information that they need
- Creating tool kits that will allow personnel to do their jobs in a better way
- Delivering the capabilities that will allow the organization to access information anytime, anyplace
- Providing the framework to begin leveraging emerging technologies and best practices

## Fundamental Changes to How We Deliver Infrastructure and Services

- Ensuring that customers receive the support that they require to do their jobs
- Delivering IT infrastructure in a coordinated way to ensure interoperability
- Improving the way that IT is managed throughout the organization
- Leveraging economies of scale and industry best practices

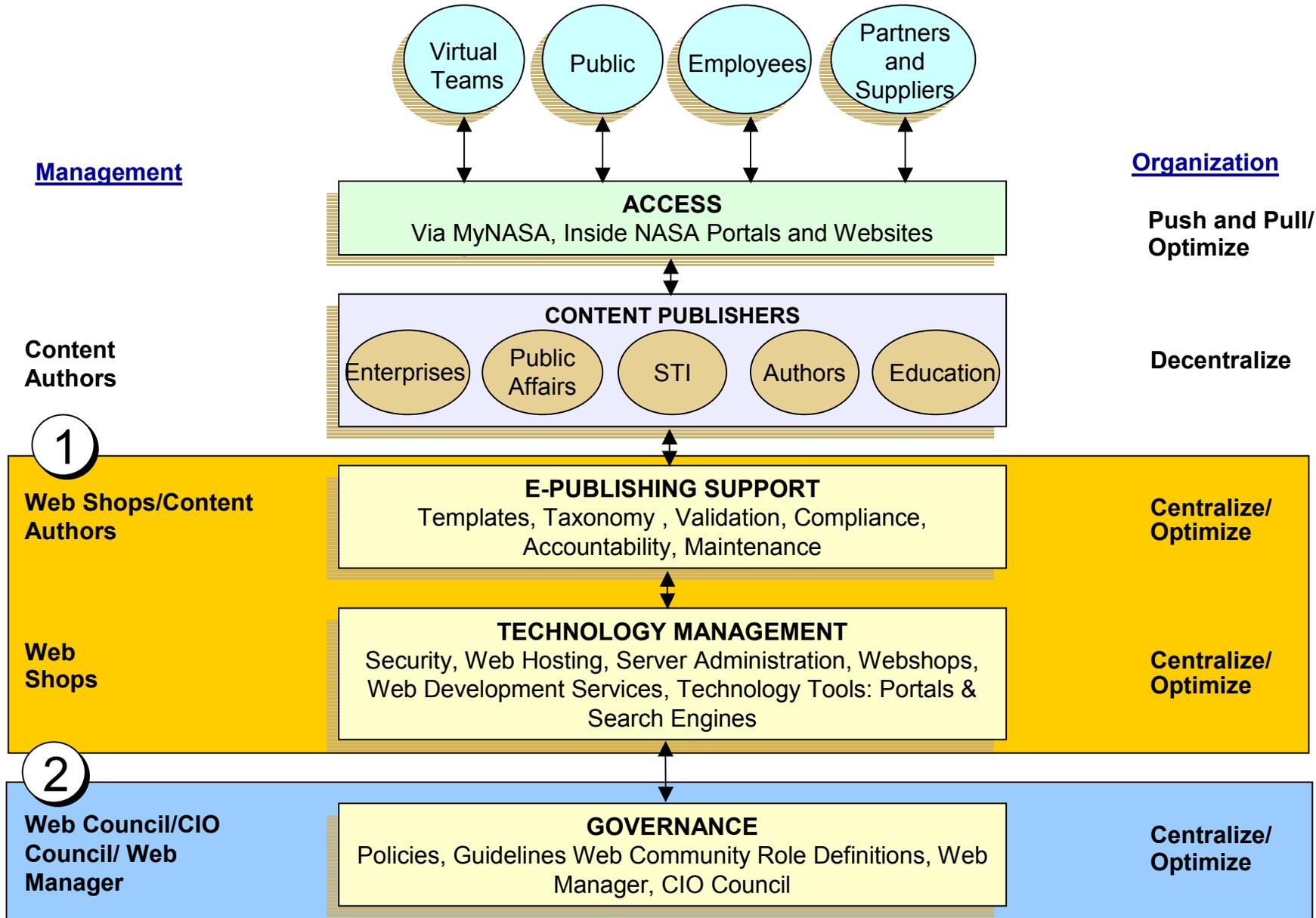


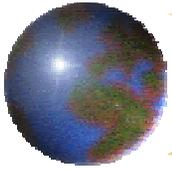
## *Ongoing Activities: Web Management (SRR 67)*

- Enable NASA to capitalize on its Web successes by spreading best practices and providing Web content developers with tools they need to create effective sites that meet NASA's mission and strategic communications goals
- Focal areas:
  - Governance (policies and management)
  - Web Shops (compliance, hosting, and web development services)
  - Content Management (processes, information, and context)
  - Enabling Applications (portal, search, content mgmt)



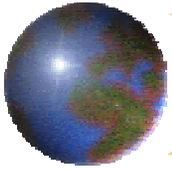
# Recommended Web Management Model





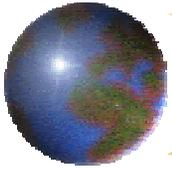
## *Ongoing Activities: Publications Policy (SRR 70)*

- Develop an Agencywide policy on electronic publications
- Address the publication life cycle as it applies to the use of electronic systems
  - Creation
  - Capture
  - Clearance
  - Distribution
- Process and definition integration with SRR 67



## *Ongoing KM-Related Activities*

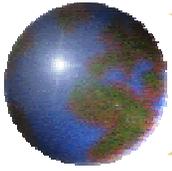
- NASA Information Technology Infrastructure Study
- Recognition Management (F)
- PBMA (Q)—Best practices, lessons learned, workgroups
- NIAT (AE)—knowledge management implementation opportunities
- PMCWG—linkage for knowledge delivery to program and project management support
- GAO audit—linkage between lessons learning and KM



## *Ongoing KM-Related Activities*

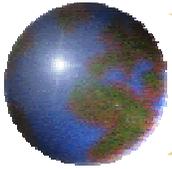
### ☉ Coordination

- ☒ APPL (Academy of Program and Project Leadership)
- ☒ Knowledge Sharing Initiative (Code FT)
- ☒ KSC, GRC, and GSFC KM Teams



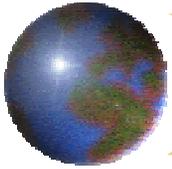
## *Strategy overview and discussion*

- ⊕ What changes have or are about to happen that will affect this?
- ⊕ What should we change?
- ⊕ What should we keep the same?



## *Discuss need for an implementation plan*

- ⊕ If not, how will we coordinate?
- ⊕ If so, how will we accomplish?



## *Success Factors and Metrics*

- Measures for success: CSF chart? Weights? Measures table?
- Knowledge activity (hits, users, items)
- Business value (anecdotes, chain of credibility)
- Siemens (Porsche for highly rated contributions)
- No KM balance sheet
- Gotta have faith!