Retaining Today's Knowledge for Tomorrow's Workforce

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Agenda

- Who is APQC?
- Study Background
- Study Findings

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APQC's Mission

To work with people in organizations around the world to improve productivity and quality by:

- discovering effective methods of improvement,
- broadly disseminating our findings, and
- connecting individuals with one another and with the knowledge they need to improve.

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Study Background

Study Participants

Study Focus Areas

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Study Sponsors

- Aerospace Corp.
- Air Products & Chemicals Inc.
- American Electric Power
- Baker Hughes
- Bell Helicopter
- BP Exploration & Production
- BP NGL
- Cadbury Schweppes plc
- Caterpillar Inc.
- CenterPoint Energy
- Chevron
- Chicago Bridge & Iron
- CPS Energy
- CVRD
- ConocoPhillips
- Deere & Co.
- ExxonMobil
- Honeywell
- Intel Corp.
- Invensys
- Lockheed Martin Space Systems
- Lockheed Martin Aeronautics
- Lucent Worldwide Services
- NASA Johnson Space Center
- Petrobras
- Procter & Gamble
- UOP LLC
- US GAO
- US Army, ARDEC
- US Army, CIO/G6
- US Air Force Materiel Command
- US Nuclear Regulatory Commission

APQC Research Sponsor 2007

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Best-practice Partners

- The Aerospace Corporation
- Fluor Corporation
- Michelin North America, Inc.
- NASA
- Rolls-Royce plc

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Retaining Today's Knowledge for Tomorrow's Workforce: Project Scope Overview

- Scope Area 1: Developing a Knowledge Retention Strategy
- Scope Area 2: Designing Knowledge Retention and Transfer Processes and Approaches
- Scope Area 3: Implementing Knowledge Retention and Transfer Processes and Approaches
- Scope Area 4: Evaluating Success

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It's Not Just Retirement Anymore

- Five years ago, the issue facing organizations was the looming retirement of the baby boomers who entered the workforce in the Seventies and Eighties.

- Today, the risk and reality of knowledge loss (and the need for retention and transfer) has become a pandemic in modern organizations.
  - The constant movement of people from project to project
  - Global business models in a "Flat World" are causing work to be done in multiple locations and recombined at the client site
  - Project teams are virtual and shifting
  - New hires: one out of five people have worked for their current organization less than a year

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This Study Examined Best-practice Strategies and Approaches to:

- determine potential value/impact of knowledge loss,
- identify what knowledge needs to be retained,
- establish processes for capturing and transferring knowledge,
- align the knowledge retention strategy to business and workforce (employee lifecycle) strategies, and
- evaluate the effectiveness of knowledge retention processes and the impact on the organization.

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An Overview of the Study Findings

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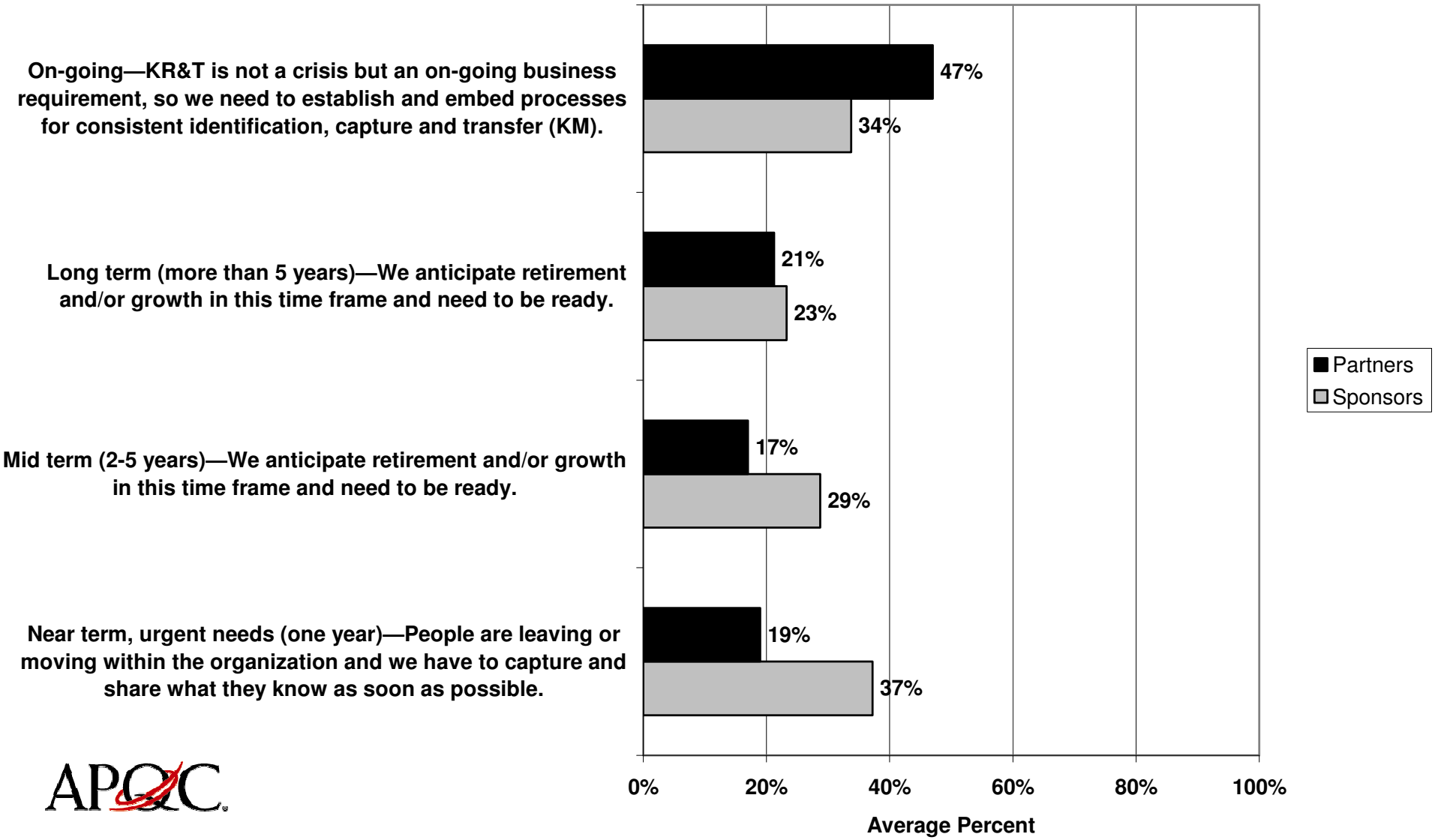
Partners devote almost 50% of their KRT resources to on-going systemic KM approaches, while still addressing near-term threats of knowledge loss.

Q12: Looking at 100 percent of your organization's KR&T efforts, what percent is focused on each of the following areas?



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Spending on Knowledge Retention and Transfer Efforts Is Much Higher in Partner Organizations

Annual budget for KR&T	Average	Median
Partners	$1,750,000	$1,750,000
Sponsors	$1,237,500	$775,000

Ratio of KR&T budget to organization revenue	Partners	Sponsors
Entire Org	0.015%	0.003%
Business Unit	N/A	0.009%

Ratio of KR&T budget to # of employees	Partners	Sponsors
Entire Org	$31	$14
Business Unit	N/A	$125

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The Human Capital Management Challenge

Karen Danis, CKM/CKEE, Danis Consulting

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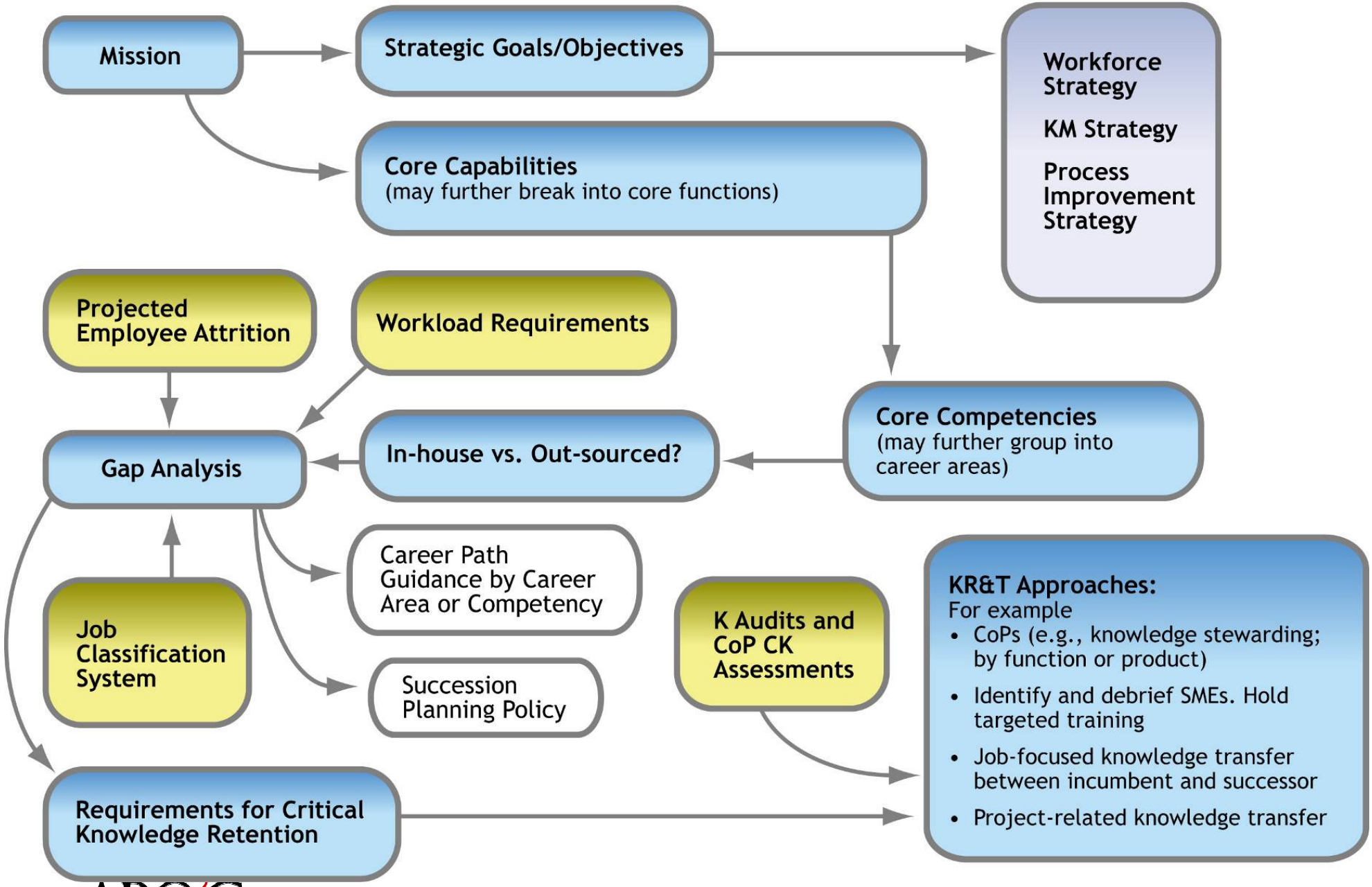
Human Capital Management Architecture (HCMA) Overview



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The Human Capital Management Challenge: Best Practices

1. Partners' Human Capital Management Architectures illustrate "integration and alignment."
2. Elements of Human Capital Management Architecture drive KR&T approaches.
3. Best-practice organizations use various models for defining requirements for talent in their workforce.
4. Best-practice organizations assign high-level managers to act as stewards of core competencies.
5. Best-practice organizations use career areas and standard job roles to help employees understand the competencies important to job success, and to help employees plan their careers.
6. Best-practice organizations identify SMEs and feature them in formal training courses.

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1. Partners' Human Capital Management Architectures Illustrate "Integration and Alignment."

- The best-practice partners illustrate alignment in their HCMAs with their corporate strategies.
- Three partners have achieved varying degrees of integration.
- Examples:
  - Michelin's rigorous approach to defining and managing Core Capabilities and Core Competencies elegantly aligns with the requirements for supporting its mission.
  - NASA views its business in terms of "Mission Areas", defining 18 Functional Areas that support its Mission Areas, and 25 Core Competencies that support the Functional Areas. However, Headquarters HR staff who oversee the competency management approach are loosely linked to the Center KM leads.
  - Fluor Global Excellence Leaders to oversee Functions, defining Career Paths and standard Job Roles mapped to skills, experience, and training. Global Excellence Leaders also oversee their respective Communities of Practice.

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2. Elements of Human Capital Management Architecture Drive KR&T Approaches.

> Once an organization determines which competencies are important, it has the context for determining which people possess those key competencies, and targeting KR&T approaches for stewarding that knowledge.

> Examples:

- Aerospace has defined five core functions that support its mission, and hundreds of departmental capabilities. These capabilities provide the focus for building knowledge-stewarding CoPs.
- NASA's Competency Management System tracks individual employee's competencies against a set of core competencies developed by NASA management. One comparison, the difference in the competencies of the current workforce and those needed by projects over a multi-year planning profile, becomes the focus of training requirements.

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3. Best-practice Organizations Use Various Models for Defining Requirements for Talent in Their Work Force.

> Defining requirements for talent can help an organization evolve the type of "right-sized" workforce needed to perform the work.
- Can save employee costs.
- Helps ensure talent is available when needed.

> Examples:
- Rolls-Royce articulates requirements in terms of Job Roles like Design Engineers.
- NASA uses very sophisticated competency models.
  - Current Employee Capabilities vs. those of the Future Workforce
  - Employee Capabilities vs. Position Requirements
  - Position Requirements vs. Mission Needs
  - Future Workforce vs. Mission Needs

"Hire, develop, and retain employees according to competencies. Identify the competencies—knowledge, skills, abilities, and behaviors—needed to achieve high performance of mission and goals, and build and sustain the organization's talent pool through recruiting, hiring, development, and retention policies and practices targeted at building and sustaining those competencies."

Source: U.S. General Accounting Office Report to Congressional Requesters, "Human Capital: Key Principles from Nine Private Sector Organizations." January 2000.

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4. Best-practice Organizations Assign High-Level Managers to Act as Stewards of Core Competencies.

> Core competencies that are essential to business success are like crown jewels. Organizations often assign a senior manager the responsibility for:
  - monitoring their health and
  - defining the structures and processes for maintaining health.

> Examples:
  - Rolls Royce assigns Skill Owners to oversee its 22 Generic Company Skills.
  - Michelin assigns a Competency Director to oversee each Expertise Area (Core Capability), and each Metier (Core Competency).
  - Fluor assigns a Global Excellence Leader to oversee each Function.

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5. Best-practice Organizations Use Career Areas and Standard Job Roles to Help Employees Understand the Competencies Important to Job Success and to Help Employees Plan Their Careers.

> Standard job roles package "work" in bundles that typically can be assigned to a single worker.
  - They help the organization:
    - state expectations for job qualification, which can simplify recruiting and placement; and
    - facilitates employee movement, to diversify their careers with the company.

> Examples:
  - NASA groups its competencies by Function, with one Career Area per Function. Each Career Area is broken into job roles, mapped to competencies defined by the supervisor.
  - Fluor's Global Excellence Leaders also specify standard Job Roles for their Function, and define Career Paths.
  - Michelin's leaders of Metiers each take responsibility for crafting standard Job Roles, Career Areas, and Career Paths.

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6. Best-practice Organizations Identify SMEs and Feature Them in Formal Training Courses.

- Traditionally, courses are taught by career instructors who know how to teach, but have only superficial knowledge of the material. Study partners buck tradition.
- Examples:
  - Aerospace Institute uses technical experts to develop and teach the courses.
  - NASA SMEs are featured instructors in the NASA Engineering and Safety Center Academy….sometimes in person, sometimes via videotape.
  - Experts at Rolls-Royce Control Systems create a comprehensive introduction for new employees.

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Enablers of Knowledge Retention & Transfer

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A Sampler of Knowledge Retention & Transfer Best-practice Themes

1. Process, process, process
2. Be in it for the long run
3. Old friends are still valuable tools
4. Technology: making use of what you've got
5. Measures? Not so much
6. What's ahead

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1. Consistency in Knowledge Retention & Transfer Comes From Well-defined and Well-understood Processes

> A process orientation ensures that knowledge is embedded into the workflow. It's not a separate retention and transfer activity because it just becomes "the way work is done."

> Examples:

- Rolls-Royce's KAMP—the Knowledge Acquisition & Modeling Process
- Michelin's Handoff Document
- Formal, structured role of subject matter experts (SMEs) at Fluor
- Special note: Fluor's process for content management

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2. Think in Terms of "Members for Life"

- By focusing on the employee's entire career lifecycle needs (including even prior to hire), over time the types of critical knowledge required, acquired, and transferred become organizational assets.

- Examples:
  - Michelin employee turnover—what turnover? Employees for life; 20-30 year careers
  - Aerospace? Like Michelin—Retiree Casual program keeps them around

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3. Mature Approaches and Techniques Still Shine

- Facilitated best-practice transfer methods, CoPs, and benchmarking show no signs of aging when it comes to supporting the effective identification, documentation, sharing, and retention of knowledge.
- Good governance models are still required, too.
- Examples:
  - Telling stories at NASA. Got chairs?
  - Fluor—Communities of Practice on steroids. Everybody's welcome, anytime
  - "Ah-ha's" from benchmarking; Aerospace, Fluor, Michelin, Rolls-Royce, NASA
  - Core KM Teams own the process; members own the content

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4. Technology: Still Necessary, Still Evolving

- There's no "silver bullet" for technology enablement.
- If you can integrate, do it. If you can't, don't worry about it.
- Use what you've got, but keep looking.

- Examples:
  - Aerospace's Mission Assurance Portal (MAP)
  - Fluor's *Knowledge Online*SM
  - NASA's NASA Engineering Network (NEN)
  - Michelin's Lotus Notes
  - Rolls-Royce Global Capability Intranet (GCI)

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5. Measuring What Matters: Are We Still Going in the Right Direction?

- For organizations mature in their knowledge retention and transfer efforts, measurement is more about "health checks" and work enablement and less about calculated ROI.
- Initial business case based on changes to business model and risk of potential knowledge loss; over time move to activity measures and health checks.

- Examples:
  - Fluor's community health checks
  - Michelin's assessments

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6. A Different Way of Knowledge Transfer May Become the New Model

> The "flat organization" may soon be upon us as peer-to-peer technologies and user demands invade the space of enterprise controlled repository of information and knowledge.

> Examples:

- Finding expertise through social networking tools at Aerospace and at NASA
- Collaboration spaces
- Blogging, wikis, expertise location tools

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Questions?

Thank you for your time and attention!

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APQC Highlights

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Who We Are

- APQC is a member-based, non-profit organization
  - ✓ Founded in 1977
  - ✓ Started with donations from 100 corporations
  - ✓ Non-profit, tax-exempt 501(c)(3)
  - ✓ Serves more than 500 organizations around the world
- 30-year reputation founded on integrity and the support of rapid innovation through
  - ✓ Performance measurement
  - ✓ Best practice research and implementation
  - ✓ Knowledge capture, transfer, and reuse
- Quick facts:
  - ✓ Board of Directors: 45 senior executives from corporations, education, and government
  - ✓ Staff of 80

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Why Do People Come to APQC?

> They are looking for…

- data and best practices to solve problems, improve processes, or design something better;
- frameworks and models to make sense of a complex world and provide a roadmap forward; and
- a chance to meet with other people: to learn, explore, and validate.

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APQC Provides Three Types of Research

1. OSBC—global metric research and benchmarking based on Open Standards
2. Consortium—multi-company best-practice collaboration around a common set of issues or processes
3. Custom– for unique needs

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APQC's Previous KM Consortium Studies

- The Role of Evolving Technologies: Accelerating Collaboration and Knowledge Transfer (In progress)
- Retaining Today's Knowledge for Tomorrow's Workforce (2007)
- Leveraging Knowledge Across the Value Chain (2006)
- Using Communities of Practice to Drive Organizational Performance and Innovation (2005)
- Integrating KM and Organizational Learning (2004)
- Transfer of Best Practices (2004)
- Virtual Collaboration (2003-2004)
- Expertise Locator Systems (2003)
- Measuring the Impact of Knowledge Management (2003)
- Using Knowledge Management to Drive Innovation (2002)
- Retaining Valuable Knowledge (2001)
- Managing Content and Knowledge (2001)
- Building and Sustaining Communities of Practice (2000)
- Successfully Implementing KM (1999-2000)
- Creating a Knowledge Sharing Culture (1998-99)
- Expanding Knowledge Externally (1998)
- Europe - The Learning Organisation & KM (1997)
- Using Information Technology for KM (1997)
- Emerging Best Practices in KM (1996)

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