

Bristol-Myers Squibb's Prescription for Navigating R&D Knowledge

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September 27, 2005**

Objectives

□ *Provide an understanding of:*

- How KM is currently positioned at BMS
- Our current “franchise”
- How we leveraged technology over the years
- How we support more clients without more resources
- Our lessons learned

Bristol-Myers Squibb

□ **Headquarters:**
New York, NY

□ **NYSE Listing:** BMY

□ **Employees:** 43,000

□ **Global Sales:** \$19.4
billion (2004)

□ **www.bms.com**

□ **Businesses:**

■ Pharmaceuticals

■ Mead Johnson
Nutritionals

■ ConvaTec (Ostomy
Care and Wound
Therapeutics)

■ Medical Imaging

Mission:

Extend and enhance human life by providing
the highest-quality pharmaceuticals and
health care products.

Selected Key BMS Products

- Abilify® (aripiprazole)
- Avapro® (irbesartan)
- Baraclude™ (entecavir)
- Cardiolite®
- ConvaTec Ostomy Care
- ConvaTec Wound
Therapeutics
- Enfamil® (infant formula)
- Erbitux® (cetuximab)
- Excedrin®
- Plavix® (clopidogrel)
- Pravachol® (pravastatin)
- Reyataz® (atazanavir)
- Sustiva® (efavirenz)
- TAXOL® (paclitaxel)
- Videx® EC (didanosine)
- Zerit® (stavudine)

Pharmaceutical Research Institute

□ Major R&D Facilities:

- Princeton, NJ
- Hopewell, NJ
- New Brunswick, NJ
- Wallingford, CT
- Braine L'alleud, Belgium
- Moreton, England
- Singapore

□ Pharmaceutical R&D Investment:

\$2.3 billion (2004)

□ PRI Staff: 5,400

□ R&D Areas:

- Affective Disorders
- Alzheimer's Disease
- Atherosclerosis and Thrombosis
- Cancer
- Diabetes
- Hepatitis
- HIV/AIDS
- Obesity
- Rheumatoid Arthritis
- Solid Organ Transplantation

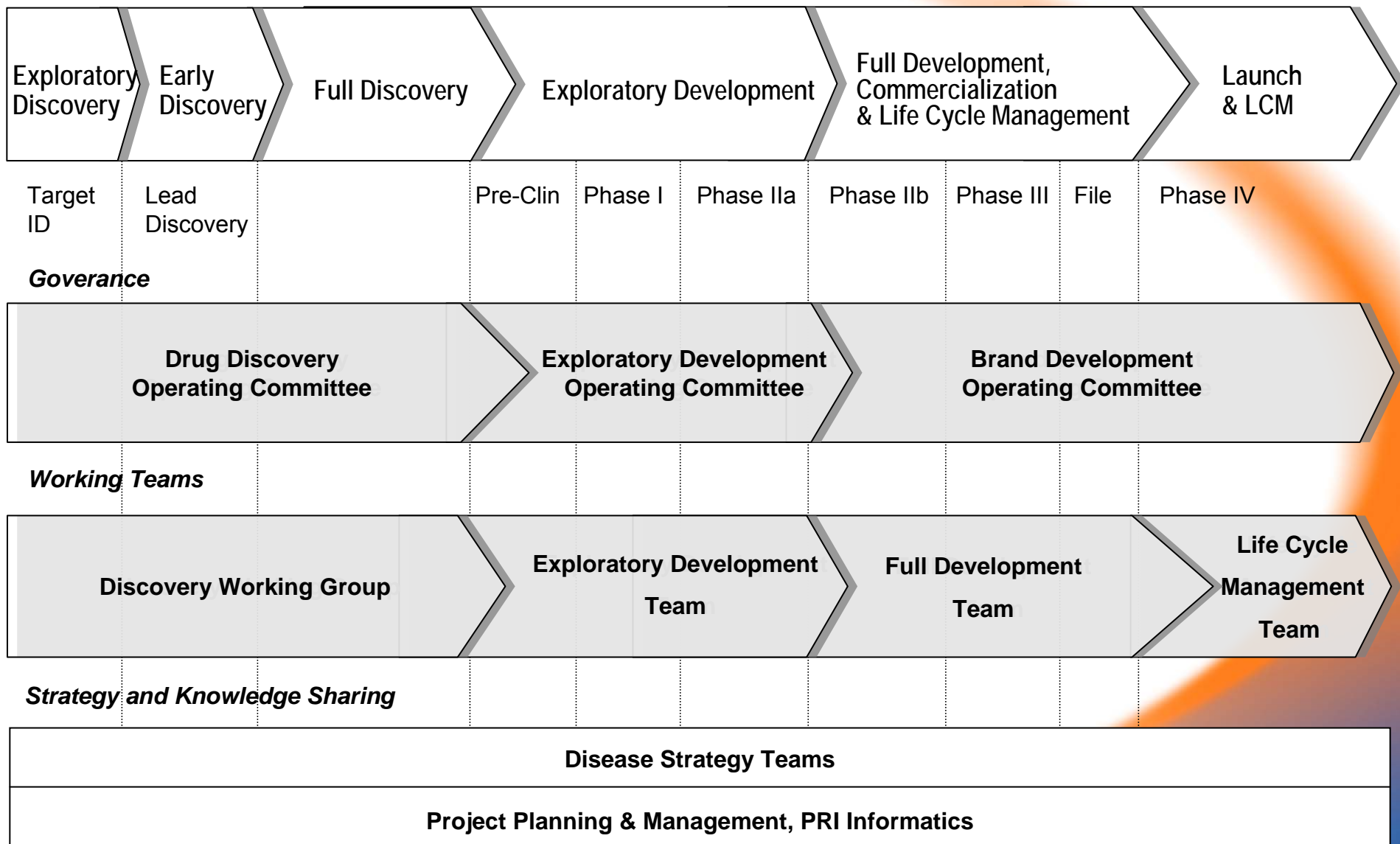
Current Industry Challenges

- ❑ Long product development cycle and rapidly escalating per-product R&D costs
- ❑ Decline in drug approval success rates
- ❑ Patents provide limited exclusivity to realize ROI
- ❑ Current selling/marketing model is very costly
- ❑ Prices under pressure from multiple sources
- ❑ Past M&A strategy yielded mixed results
- ❑ Global regulatory compliance

Corporate Culture

- ❑ Highly educated and self-directed
- ❑ Innovation is highly valued
- ❑ Speed of decision and execution
- ❑ Matrix organization
- ❑ Relationships and networks driven
- ❑ Strong external R&D alliances
- ❑ ROI drives resource allocation

BMS Matrix Structure



Why is KM Important to BMS?

“The actual product of the pharmaceutical industry is knowledge; pill and prescription ointment are no more than packaging for knowledge.”

Peter Drucker
Post Capitalist Society, 1993



Source: <http://www.phrma.org>

Evolving Organizational Alignment

- ❑ **1998:** Grass roots effort in Drug Discovery (PRI)
- ❑ **1999:** Absorbed into Drug Discovery Informatics (PRI, Informatics)
- ❑ **2000:** Transferred to Scientific Information Resources (PRI, Informatics)
- ❑ **2001:** SIR becomes Knowledge Integration Resources (Corporate Staff, Information and Knowledge Management)
- ❑ **2004:** KIR “unbundled” from KM, becomes Information & Knowledge Integration (PRI, Informatics)

Product Life Cycle Management

- 1. Plan and Prioritize**
- 2. Build**
- 3. Sustain**
- 4. Archive**

Online Collaborative Environments


Knowledge Desktops: Internal Usage

Knowledge Desktop Program Team

[OneBMS](#)
[PRI Home](#)
[Knowledge Desktops](#)
[Basic Search](#)
[Advanced Search](#)

Home >

- [Links](#)
- [Strategic Documents](#)
- [Training Materials](#)
- [Meetings](#)
- [Training Sessions](#)
- [Significant Events](#)
- [References](#)
- [Projects](#)
- [Presentations](#)
- [Announcements](#)
- [Content Management Systems](#)
- [Info](#)



Knowledge Desktops are web gateways enabling teams and communities of practice to collaborate and achieve breakthrough performance.

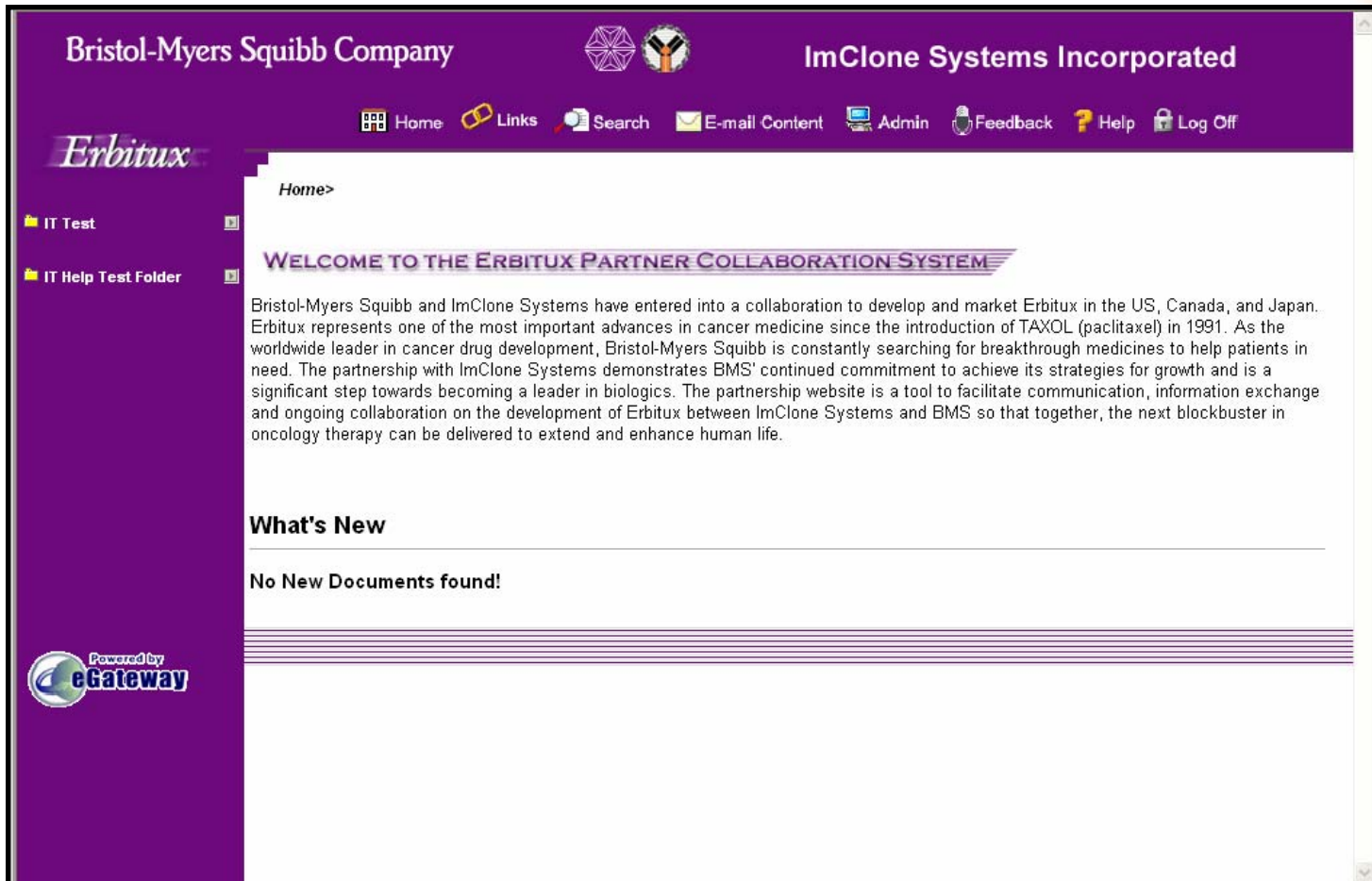
What's New

- [2005-Aug-29 KD Online Course Marketing Communications Plan](#) (30-Aug-2005 09:22:27)
- [KD Build Checklist.doc](#) (29-Aug-2005 12:21:34)
- [KD Metrics](#) (25-Aug-2005 17:46:15)
- [Basulin PCS - Retirement - Data Extraction Requirements](#) (25-Aug-2005 17:27:59)
- [Basulin PCS - Retirement - Asset Inventory - 2005-Aug-22](#) (25-Aug-2005 17:24:25)
- [Online Training for KD Content Managers ePost - 2005-Aug-19](#) (25-Aug-2005 15:33:30)
- [Basulin PCS - Retirement - Project Plan](#) (25-Aug-2005 11:12:00)
- [Outsourcing Management PCS - Request for Service - includes IP address ranges](#) (24-Aug-2005 16:35:09)
- [Aripiprazole PCS - I3 Extension - IP Address Range - Additional Addresses - 2005-Aug-24](#) (24-Aug-2005 16:32:20)
- [KD Hit Counters - Departments](#) (22-Aug-2005 08:59:35)



To request access to this KD, please contact the Content Manager listed on this site.
For technical support, please contact the BMS Help Desk.

Online Collaborative Environments

□ Partner Collaboration Systems: Connects BMS and Alliance Partner(s)



The screenshot displays the Erbitux Partner Collaboration System website. The header features the logos for Bristol-Myers Squibb Company and ImClone Systems Incorporated. A navigation bar includes links for Home, Links, Search, E-mail Content, Admin, Feedback, Help, and Log Off. The main content area is titled "WELCOME TO THE ERBITUX PARTNER COLLABORATION SYSTEM" and contains a paragraph of text describing the collaboration between Bristol-Myers Squibb and ImClone Systems. Below this, a "What's New" section reports "No New Documents found!". The website is powered by eGateway, as indicated by the logo in the bottom left corner.

Bristol-Myers Squibb Company   ImClone Systems Incorporated

[Home](#) [Links](#) [Search](#) [E-mail Content](#) [Admin](#) [Feedback](#) [Help](#) [Log Off](#)

Erbitux

IT Test
IT Help Test Folder


Home>

WELCOME TO THE ERBITUX PARTNER COLLABORATION SYSTEM

Bristol-Myers Squibb and ImClone Systems have entered into a collaboration to develop and market Erbitux in the US, Canada, and Japan. Erbitux represents one of the most important advances in cancer medicine since the introduction of TAXOL (paclitaxel) in 1991. As the worldwide leader in cancer drug development, Bristol-Myers Squibb is constantly searching for breakthrough medicines to help patients in need. The partnership with ImClone Systems demonstrates BMS' continued commitment to achieve its strategies for growth and is a significant step towards becoming a leader in biologics. The partnership website is a tool to facilitate communication, information exchange and ongoing collaboration on the development of Erbitux between ImClone Systems and BMS so that together, the next blockbuster in oncology therapy can be delivered to extend and enhance human life.

What's New

No New Documents found!

Powered by 

Online Collaborative Environments

Plumtree Portal Communities: Internal Usage

The screenshot shows the OnePatent Community website. The header includes the 'One BMS' logo and navigation links for 'Home Page', 'Patent Workbench', 'Patent Analysis', 'Patent Department', and 'Regional IP Counsel'. A sidebar on the left contains a 'Community Index' with sections for 'Patent Workbench', 'Patent Analysis', 'Patent Department', and 'Regional IP Counsel'. The main content area features the 'OnePatent Community' logo, a 'Patent Portfolio' section with a lightbulb icon, and a 'Quick Reference Guides' section with links to 'A Chemist's Quick Reference Guide for Patent Searching' and 'A Biologist's Quick Reference Guide for Patent Searching'. Below this is a 'Community FAQs' section and a 'Useful Resources' section with links to 'MicroPatent', 'Current Patents Gazette', 'IDdb3', 'Daily IP News', and 'Daily Pharmaceutical News'. A 'Patent Contacts' section lists 'Patent Attorneys/Agents', 'Patent Searchers/Analysts', and 'Patent Department Notaries'. At the bottom, there is a 'Published News Topics' section with a link to 'Pharmaceutical News : intellectual_property 08.30.05 -Novel therapeutics for'.

Knowledge Desktop at a Glance

- An enterprise-wide, web-based collaboration program
- Accessible from the BMS intranet
- Constructed around the needs of the customer
- Central repository: Documentum
- Access controlled by the customer
- Executive-sponsored
- Managed by IKI

Evolving KD Technology

Macintosh

UNIX

Documentum (iTeam)

Plumtree

eGateway

— 1998 — 1999 — 2000 — 2001 — 2002 — 2003 — 2004 — 2005 —→

□ Taxonomy-Driven KD Portal

kd.bms.com

Search

Directory

Business Partners (Alliances)

Compound Names

Functional Areas

[Compliance](#), [Content Management](#), [Discovery Research](#), [Exploratory Development](#), [Facilities and Engineering](#), [Full Development](#), [Human Resources](#), [Information Resources](#), [Information Technology](#), [Knowledge Management](#), [Legal](#), [Lifecycle Management](#), [Management Resources](#), [Pharmaceutical Development](#), [Product Development](#), [Purchasing](#), [Regulatory](#), [Sales and Marketing](#)

Therapeutic Areas

[Anti-Infectives](#), [Cancer](#), [Cardiovascular Diseases](#), [Diseases of the Central Nervous System](#), [Immunology](#), [Metabolic Diseases](#), [Solid Organ Transplantation](#)

Sample Record: IKI

Description

Link to KD

Functional area(s)

Daughter KDs

Status indicator

IKI

Description

Our name, Information & Knowledge Integration (IKI), and slogan, Leveraging Knowledge for Competitive Advantage, reflect our vision of ourselves and the value we add to the entire enterprise. Our focus targets strategic clients and expands our efforts to embed Knowledge Management in the way work gets done at Bristol-Myers Squibb. We position ourselves in a leadership role in the emerging areas of Knowledge Management within BMS.

Site URL

<http://www.pri.bms.com/library/kd/cop/kir/>

Used for

Information and Knowledge Integration
Knowledge Integration Resources

More general information

Content Management
Information Resources
Knowledge Management

More specific information

Cybrary Knowledge Desktop
IKI Current Awareness Project
IKI Hotline
IKI Public Disclosure (PubD)
IKI Training
IKI Vocabulary Management Service

Status

Active

Banner Zone with Two Search Options

Knowledge Desktop Program Team
Knowledge Desktop

OneBMS PRI Home Knowl Desk

[home>](#) [Presentations>](#)

Bread Crumb Trail

Customizable Splash Zone

Dynamic "What's New" Zone

What's New

- [KD Build Checklist.doc](#) (29-Aug-2005 12:21:34)
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Program Specific Content Zone

Contact Zone

[Cybrary]	[eXPERT]	[PCS Program]
[Daily Pharm News]	[Informatics]	[PD&C]
[Documentum Admin]	[Knowledge Desktops]	[PRI Home]
[E-Journals]	[Patents]	[Project Planning & Mgt]
[Enabling Services]	[PCO]	[Records Management]

Quick Links Zone

Access / Support

To request access to this KD, please contact the Content Manager listed on this site.
For technical support, please contact the BMS Help Desk.

Navigating to Documents

The screenshot shows the 'Knowledge Desktop Program Team' website. At the top, there is a navigation bar with links for 'OneBMS', 'PRI Home', 'Knowledge Desktops', 'Basic Search', and 'Advanced Search'. Below the header, the breadcrumb trail reads 'Home > Presentations >'. On the left, a vertical folder tree lists years from 1999 to 2005, with a sub-menu for 2005 showing months from January to December, plus 'Vendor Presentations'. The main content area features a 'Knowledge Desktop' logo with the tagline 'Your Team's Key to Success!' and an illustration of people with a key. Below this, there is a list of documents, with one document titled '2003-Apr-24 Boston KM Forum & NE KMPro Meeting' highlighted. A yellow callout box with an orange border and an arrow points to this document, containing the text: 'Wingout menus point to documents that reside in Documentum repository.' To the right, a 'What's New' section lists several documents with their dates and times. At the bottom, there is a 'Content Manager' section for Harvey Wiener and a footer with contact information.

Knowledge Desktop Program Team
Knowledge Desktop

OneBMS PRI Home Knowledge Desktops Basic Search Advanced Search

[Home](#) > [Presentations](#) >

1999
2000
2001
2002
2003
2004
2005

January
February
March
April
May
June
July
August
September
October
November
December
Vendor Presentations

Knowledge Desktop
Your Team's Key to Success!

2003-Apr-24 Boston KM Forum & NE KMPro Meeting

What's New

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- [Basulin PCS - Retirement - Asset](#)

Ask a Question

Content Manager
Harvey Wiener

[\[eXPERT\]](#) [\[PCS Program\]](#)
[\[Informatics\]](#) [\[PD&C\]](#)
[\[Knowledge Desktops\]](#) [\[PRI Home\]](#)
[\[Patents\]](#) [\[Project Planning & Mgt\]](#)
[\[PCO\]](#) [\[Records Management\]](#)

please contact the Content Manager listed on this site.
support, please contact the BMS Help Desk.

Wingout menus point to documents that reside in Documentum repository.

Opening Documents

Knowledge Desktop Program Team
Knowledge Desktop

OneBMS PRI Home Knowledge Desks Basic Search Advanced Search

Microsoft PowerPoint - [2003-Apr-24 Boston KM Forum & NE KMP Pro Meeting[1].ppt]

File Edit View Insert Format Tools Slide Show Window Help Acrobat

45%

Arial 24 B I U S

Outline Slides

1

Selected document opens in new window

Supporting Collaboration in Research and Development at Bristol-Myers Squibb

Harvey L. Wiener, Ph.D., M.B.A.
Associate Director
Knowledge Integration Resources
April 24, 2003

Knowledge Integration Resources
Empowering Knowledge for Competitive Advantage

Click to add notes

Slide 1 of 38 OneBMS.pot

Advanced Search

KD Program Team Search Page

Search Home(s):

Name:

Author(s):

Owner:

Keywords:

Document Date: On And

Additional Search Terms:

Sort By: Ascending Descending

Roles and Responsibilities

Knowledge Desktop Program Team

Knowledge Desktop


OneBMS PRI Home Knowledge Desktops Basic Search Advanced Search

[Home](#) > [Presentations](#) >

- 1999
- 2000
- 2001
- 2002
- 2003
- 2004
- 2005

Knowledge Desktop

Your Team's Key to Success!



Knowledge Desktops are web gateways enabling teams and communities of practice to collaborate and achieve breakthrough performance.

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- [KD Hit Counters - Departments](#) (22-Aug-2005 08:59:35)
- [KD Portal2 - Project Plan](#) (22-Aug-2005 08:57:23)

Ask a Question

Content Manager
Harvey Wiener ✉

[\[BMS News\]](#) [\[Cybrary\]](#) [\[eXPERT\]](#) [\[PCS Program\]](#)
[\[BMS White Pages\]](#) [\[Data Base News\]](#) [\[Information\]](#) [\[P&O\]](#)
[\[Bus Part LDAP Lookup\]](#) [\[Doc\]](#)
[\[Comp Intelligence\]](#) [\[E-\]](#)
[\[Content Managers\]](#) [\[Er\]](#)

To request access to
For te

The area in orange is maintained by the Content Manager. All other areas are maintained by the KD Team.

Content Management

- Content owned by work team
- Fast, simple, intuitive process with no programming skills required
- Partner with KD Team to secure critical information
- Newly-released online training course
- End-user support provided by BMS Help Desk

Online Content Manager Training

- ❑ 'Just-in-time' delivery anywhere
- ❑ Repeatable and available on demand for review
- ❑ Higher interaction for higher retention using simulations
- ❑ Required for new Content Managers (CM)
- ❑ Recommended for current CMs to refresh or refine their skills

End-User Support

- ❑ First-tier end-user support provided by the BMS Help Desk
 - Available 24 x 7
- ❑ Second-tier support provided by KD Team
- ❑ Third-tier support provided by appropriate service partner
- ❑ Ticket tracking
- ❑ Growing Knowledge Base

Marketing Our Services

- Word of mouth
- Targeted internal presentations
- Targeted emails
- Brochures
- Posters
- Key chains
- Milestone celebrations
- BMS ePost announcements
- Internal symposiums
- External KM conferences

Metrics -- a Balanced Approach

- Qualitative, Quantitative and Anecdotal
 - Market penetration
 - Request tracking
 - Visits to online collaborative environment
 - Help Desk ticket tracking
 - Community anecdotes and success stories
 - Community value assessment
 - ▶ Perceived benefits
 - ▶ Satisfaction
 - ▶ Member participation/usage

Documented Benefits

- ❑ Saves time locating critical information
- ❑ Meetings are more action item-oriented
 - Caveat: People may stop going to meetings because they can always find meeting documents online!!
- ❑ New team members are oriented more rapidly and effectively
- ❑ Promotes BMS goals, priorities, and core behaviors
 - Communication, collaboration, productivity, program management, business decisions

Documented Benefits

- Proven user acceptance
 - Repeat customers
 - KD is part of the PRI culture
 - Clients partner with us to drive continuous improvement
 - Intuitive navigation
 - Easy content management
 - Critical resources made available by clients and service sponsors
- Rapid implementation
- BMS standard technologies leveraged

Lessons Learned

- ❑ Keep it simple, intuitive and in harmony with the way people work
- ❑ Get to know your customers
- ❑ Spread stories of your initial successes far and wide
- ❑ Creatively market your products and services!
- ❑ You must have metrics
- ❑ Leverage Enterprise standard tools
- ❑ Find and partner with others with similar interests
- ❑ Start where there's interest and momentum
- ❑ Maintain your own sanity: prioritize in a consistent way

Awards and Recognition



Acknowledgments



Margaret Casperson



John Kloss, PhD



Dan Segal

Questions?

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