Bayer Business Services

OpenCms @ Bayer
Agenda

01 Role of Bayer Business Services

02 OpenCms within Bayer

03 Customizations for Bayer

04 Sample Project: OpenCms-Portal-Integration

05 Conclusion & Outlook
Role of Bayer Business Services (I)

Bayer Business Services is the international Bayer-competence-center for IT-based solutions and services.

~ 1 Billion Euro turnover*

~ 5,000 employees*

* 2007 worldwide
Role of Bayer Business Services (II)

Bayer AG

Service areas

Bayer Business Services
Bayer Technology Services
Currenta

Workscope

Bayer HealthCare
Bayer CropScience
Bayer MaterialScience
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OpenCms within Bayer (I)

- **Why OpenCms?**
  - Finally chosen system after CMS-evaluation in 2005
    - Analysis of 20+ different systems
    - Basis: Catalogue with more than 200 criteria

- **Open Source**
  - Contribute to community and use community solutions for free
  - Independence from single vendor
  - Save licence costs
  - Remain flexible in terms of customizations
OpenCms within Bayer (II)

- Core-customizations
  - Version upgrades
  - Templates, Editor-XSDs, etc.
  - Adaptation editor-behaviour, publication mechanism, etc.

- Non-core customizations
  - Collection customer requirements, definition of releases, etc.

Staff

- Internal Employees
- External Consultants
- Alkacon
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Customizations for Bayer (I)

Bayer Business Services: Intranet

MyBayerJob

Global Bayer HR Portal

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Customizations for Bayer (II)

- **BBS Intranet I**
  - Flexible templates
    - Edited with XML-Editor
    - Simple 2-column-layouts
    - Sophisticated n-column-layouts with different content boxes per column
Customizations for Bayer (III)

- BBS Intranet II
  - Categorie tree for news items
    - News-item can belong to 0..n categories
  
  ![Categorie tree for news items](image)

- Newsletter-module
  - Automated news distribution
  - New news items collected in individually defined VFS-folders
  - Subscription via web form, optionally for 0..n categories
Customizations for Bayer (IV)

- **BBS Intranet III**
  - Offline-Preview
    - Anonymous (non-OpenCms-) users can preview offline contents (authentication against Bayer LDAP)
    - Links sent via E-Mail and valid for definable time period
  - Template to include RSS-feeds
  - New sites can be defined „on-the-fly“, i.e. without restarting the system
Customizations for Bayer (V)

- **MyBayerJob: Internet eRecruiting**
  - Germany, USA, Northern Europe
    - MyBayerJob.de with approx. 25,000-30,000 visitors per month

**RSS-feeds with open API**
- SAP-contents
- XML-files
- Binary files (podcasts, …)

**Jobs extracted out of Bayer HR SAP**
Customizations for Bayer (VI)

- **Global Bayer HR Portal I**
  - OpenCms integrated into an IBM-Websphere Portal
    - Delivery of navigation structure and content pages
  - Portal sized for Bayer-global-use
    - Currently:
      - Approx. 50,000 users in Germany, USA, Southern America
    - More to come…:
      - Approx. 100,000 users worldwide
Customizations for Bayer (VII)

- Global Bayer HR Portal II
  - Templates
  - Table-Pages
  - Image-Hotspots (Image Maps)
  - Application Pages
    (Content page linked with SAP-Self-Service)
Customizations for Bayer (VIII)

- **Global Bayer HR Portal III**
  - Transfer language versions in XML-editor
    - Prefilled widgets of language version 1 can be transferred to language version 2 easily
    - Facilitate translation of content items
  - Linkmanagement
    - Path names replaced by item IDs
    - Allowing move- /rename-operations without risking inconsistencies
  - Content distribution functions
    - Contents / Siblings can easily be moved / created within complex tree structure
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Sample Project: OpenCms-Portal-Integration (I)

- Intention of the project: Implement an HR-Portal
  1. With general HR-information (Contents)
  2. And HR-specific applications (Self-Services)
  3. That can be maintained easily

- Easy maintenance
  - Maintain as many Portal-components as possible with OpenCms
Sample Project:
OpenCms-Portal-Integration (II)

- Easy to customize
- Acceptable performance
- Easy to integrate into Java-environment
- High availability
- Robustness (high number of visitors)
- Realtime-availability of contents
Sample Project:
OpenCms-Portal-Integration (III)

- Risks at project start
  - OpenCms just introduced as new CMS
    - No experiences concerning stability, etc.
    - Missing know-how
    - Developers just in learning-phase
  - Lack of experience in CMS-Portal-integration
  - „Key-project“ with tight timeline
Sample Project: OpenCms-Portal-Integration (IV)

- Architectural Portal-conditions
  - Advanced Role-concept
  - Import of external contents via
    - Webservice
    - File system
  - Portlets can display contents regardless of original format
    - Conversion via XSLT
Sample Project:
OpenCms-Portal-Integration (V)

Role-mapping in OpenCms: 2 Possibilities

1. Implicitly
   - High customization efforts
   - Minimum of content items

2. Explicitly
   - Less effort
   - Better usability (role-context directly viewable)
   - High number of items / folders
   - Redundant contents (siblings)
   - Complexity for project managers

Key criteria: Time & Usability

Final choice: New Navigation structure
Sample Project: OpenCms-Portal-Integration (VI)

Content trees

- MasterTree
  - Global contents
  - Role-specific contents
- SpecialTrees

Distribution

Roles

Special-Trees
Sample Project: OpenCms-Portal-Integration (VII)

**Pull contents**
- Dynamic content delivery
- Realtime-availability of contents
- Defined middleware that can comparatively easy be customized

**Push contents**
- OpenCms as non-critical system
- Relatively low implementation efforts

- Additional implementation efforts for Webservice
- Availability: OpenCms as critical system
- Hardware-sizing: Requests directly to CMS

- Contents available with delay only
- Higher error probability
- Technically not advanced solution

Final choice
Sample Project:
OpenCms-Portal-Integration (VIII)
Lessons Learned

- System with acceptable performance up to 50,000 siblings
  - Higher number:
    - Performance problems e.g. when calling property dialogues
  - Probable cause:
    - Slow Oracle-DB-server

- rSync to Portal proved to be an adequate solution
  - On OpenCms-failures Portal-contents have not been affected
  - Easy change of sync-directions for maintenance / tests
  - No expensive high-availability environment for OpenCms necessary
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Conclusion

- OpenCms as suitable system also for larger ECM-projects

- Generally positive feedback of end users
  - Easy to use

- Improvable aspects according to customers
  - Handling of XML-editor
  - Real inline-editing
  - Out-of-the-box workplace-documentation of „standard-OpenCms“
Outlook

- **Further expansion of OpenCms within Bayer planned**
  - Smaller and medium-sized Intranet- and Internet-sites
  - Plan:
    - Establish OpenCms as standardized CMS for Bayer Business Services

- **Integration of OpenCms and Microsoft Sharepoint**
Thank you for your attention!

Which questions do you have?

Should you have any further questions, please do not hesitate to contact me

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