SCHOOL OF NUCLEAR KNOWLEDGE MANAGEMENT

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Enterprise information portals at GRS

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KM and Portal

- A Portal is a central access point to all information in an organization

- A Portal may be regarded as a „backbone", focussing KM activities

- At GRS, two types of activities on Portals
  - Portal deployment - Internal: adaptation and implementation
  - Portal services activities - External: hosting, maintenance and exposure to world wide web users

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Portals

- R & D activities: Portal Development
  - GRS is developing portals for communities / institutions as listed:
    - BMU (Federal Ministry for the Environment, Nature Conservation and Nuclear Safety): RS-Portal
    - SARnet (Severe Accident Research Net): SARnet-Portal
    - COVERS (Co-Ordination Action Project VVER Safety Research): COVERS-Portal
    - FGCoop (French German Cooperation): FGCoop-Portal
    - WimiP (Wissensmanagement in der Praxis): WimiP-Portal
    - Esau (Endlagerstandort- Auswahlverfahren)
    - WasteInfo (Collection for waste related Information)

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A Portal: What is it Good for

- Information to all Participants

- Search in structured / unstructured document compilations

- Simple exchange of data

- Presentation of information in particular contexts

- Archiving and distributing information

- Integration with Quality Management

- Support of the General Manager

- Contribution to maintaining competence

- Access to applications

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What to Put into a Portal?

- All relevant documents
- Information assemblies (data bases)
- Archives
- Actual informations and messages
- Discussions
- Yellow pages
- Link lists
- Relevant e-mails
- Calendars

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Structured / Unstructured Information

- **„Basic Rule" for information management:**

  - Either efforts to be spent when adding information to an assembly (metadata, thesaurus)

  - Or efforts to be spent when retrieving information

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The GRS- Portal

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- Central access point to all documents and information
  - Realized with MS Sharepoint Portal Version 2
  - Integrated Document Management
  - Collaboration in Team Sites
- Document Management System (DMS)
  - DMS "Light"
    - Ease of use
    - DMS Features:
      - CheckIn/CheckOut
      - Versioning
      - Metadata (document profile data)
      - Mail export

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– Crawling and indexing of external sources
  - File Shares (CD's, …)
  - Notes Databases
– Very good integration with MS Office 2003
- Portal Sites:
  – News (different sources such as existing databases, external sources …)
  – GRS Portal News

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– Themes - horizontal
  - Yellow Pages
  - Quality Management
  - Education and Training
  - Organisation Handbook
  - Information Systems
  - GRS-Reports
  - Photo- and Overhead Archive
  - Support and Help (portal and non-portal content)
  - International Activities
  - Knowledge Management
  - Sitemap
– Organisation Units – vertical
  - Presentation of Management, Divisions

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- Collaboration
  – Open Team Sites for
    - Departments
    - Projects
    - Particular Areas
      – Emergency Response Team
      – Strategical Programme Groups
      – …
  – Closed Team Sites
    - Often short-term collaboration on restricted fields

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Project-Server: Standard Default Layout

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Enterprise Information Portals
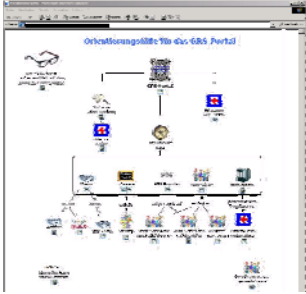## at GRS

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- Each project has its own project team site (German or English)
- Project Planning with MS Project (option for each project)
- All project documents incl. mail electronically held
- Preset project metadata
- Default structure:
  - Quality assured documents (allows limited access by sponsor)
  - Work documents
  - Particular rights to project members, project leader, controller

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GRS Portal: Navigation Help Page

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What should the portal achieve:

- Transition from e-mail based communication to Team communication
- Improvement of internal communication
  - Information on all GRS-activities of common interest, GRS-Strategies
  - Team Cooperation
- Build a Corporate Memory
- Integrate DMS (particularly w.r.t. projects) in everyday work
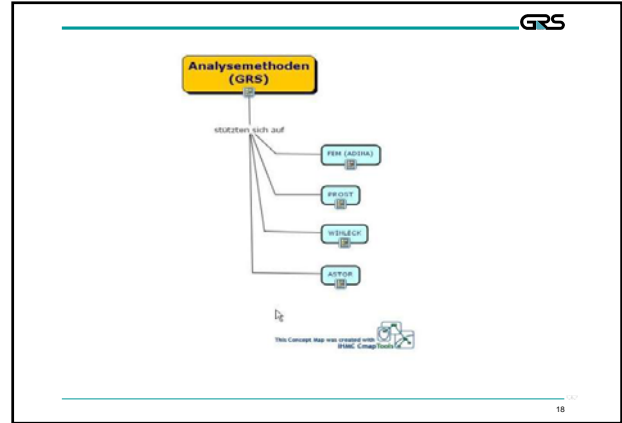- Help along the notion of Knowledge Sharing
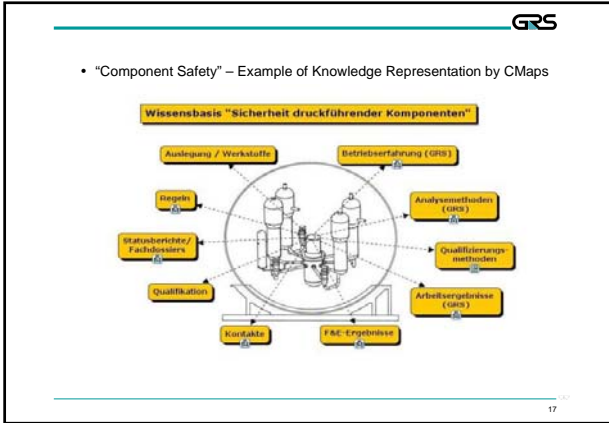
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- Search
  - Sharepoint default had to be improved by a third party tool (Boolean, Metadata, Wildcard search)
    - Search over all portal and non-portal content
- Integration of tools for knowledge representation
  - Concept Maps
  - Ontologies
- Alerts
  - For every list (document library, announcements, news …)

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• "Component Safety" – Example of Knowledge Representation by CMaps

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RS-Portal (Reaktorsicherheits-Portal, Reactor Safety Portal)

- The Dept. RS (Reaktorsicherheit- Reactor Safety) of BMU is presently funding these GRS- projects in the area of Nuclear KM:
    - Information and Knowledge Management Concerning the Atomic Energy Act
    - Nuclear Safety Network (INT 9150) - Information and Knowledge Management for Multilateral Regulatory Cooperation - Nuclear Safety Network

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Information- and Knowledge Management for the Atomic Energy Act Purposes

- Project Aim
    - The project deals with the development and operation of a information management system that supports the BMU with its tasks at the execution of the Atomic Energy Act and federal licensing and surveillance. Therefore, electronic and conventional compilations of documents and important specific information for the atomic licensing authorities are sifted and evaluated (editorial works). This information is then presented electronically so that a staffer has it on her / his desktop computer and might do without use of conventional clipboards and handbooks.

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Information- and Knowledge Management for Multilateral Regulatory Cooperation

- Project Aim
  - To make accessible a multitude of already existing international documents, data bases and information by a shared platform as well as to use a tool for cooperative electronic provision of documents and programs to be developed is an important step towards the simplification of international cooperation. The management of national information for the German licensing authorities is subject of a separate project.

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Information and Knowledge Management Concerning the Atomic Energy Act

- Within this project, GRS is setting up the "RS Portal". In a first step, the portal services the Unit RS I 5 „Multilateral Regulatory Cooperation" of the German BMU.
- Then, the superior Dept. RS (Reactor Safety) of the BMU will be serviced.
- The use of the portal is safely restricted to BMU staff only.

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RS Portal

- RS Portal:
  - Workbench for the RS- staff
  - Single access point to information ressources (document compilations, data bases, information collections, knowledge representations)
    - Concept Maps, Mind Maps, Lotus Notes databases
- Work on the portal comprises
  - Technical Support, such as installation, maintanace, integration into intranet
  - Content work, such as structuring due to the needs of customer, content investigation and collection

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RS Portal: Main structure

- Presently, there are 12 main navigation topics in the portal:
  - Homepage (entry point)
  - Rules and regulations
  - National institutions
  - International institutions
  - In house planning
  - Running projects
  - Supervision
  - Department file system
  - Knowledge
  - Quality management
  - hints
  - Site map

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Regulations Pyramid

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Workflow Modelling with Cmap and SADT

Action

Result

Hyperlinks:
e.g. to diagrams,
documents, actions

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Example of Process Descriptions: Composition of GRS A-Report

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Current and future activities

- Concentration on description of competence fields
  - Competencies of GRS have been described in main business areas:
    - Reactor Safety
    - Waste Disposal
    - International and Cross-Cutting Topics
  - Each area is subdivided in competence fields
  - For each competence field, an own portal site is developed
  - Initial page is standardized (default)
    - Contains e.g. main documents, events and event calendar, internal/external contacts, links to other portal sites, link list to internet

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- Introducing Wikis (experimental phase)
  - High potential of Wikis for knowledge management (literatur, first successful deployments)
  - Follows the Wikipedia concept: Easy introduction of contents, editable by others, highly dynamical

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