



Knowledge Management ANDRA

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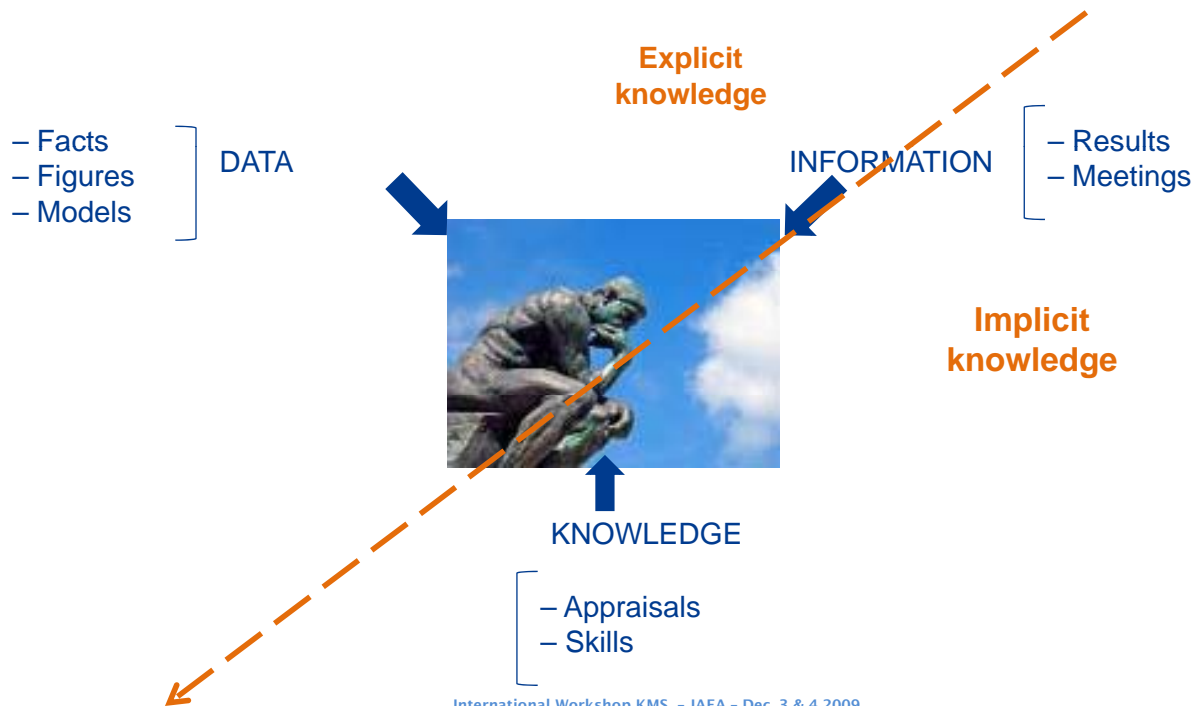


Summary

- 1) Background information
- 2) Status Report on Explicit Knowledge
- 3) Status Report on Implicit Knowledge
- 4) Evolutions

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1) Background Information



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1) Background Information

Knowledge management:

- Knowledge acquisition
- Classification/Editing
- Distribution

Objectives:

- To facilitate the decision-making process
- To ensure objective decisions (and traceability)
- To encourage innovation/apprenticeship capabilities

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1) Background Information: Application to Andra

- Sound control of “explicit” knowledge from the acquisition stage up to its very-long-term preservation
- To develop and to maintain the memory of exchanges in order to keep abreast of input, issues, responses, etc.
- To capitalise and transmit all required operational and safety-related information
- To develop a sound management method for the (implicit) knowledge held by the experts in useful scientific and technical fields in order to preserve memory and to pass on expertise throughout the lifetime of a repository

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2) Status Report on Explicit Knowledge

Document production:

The “written” culture remains crucial for Andra and involves a heavy demand from its supervisory authorities: the number of formal documents are therefore abundant.

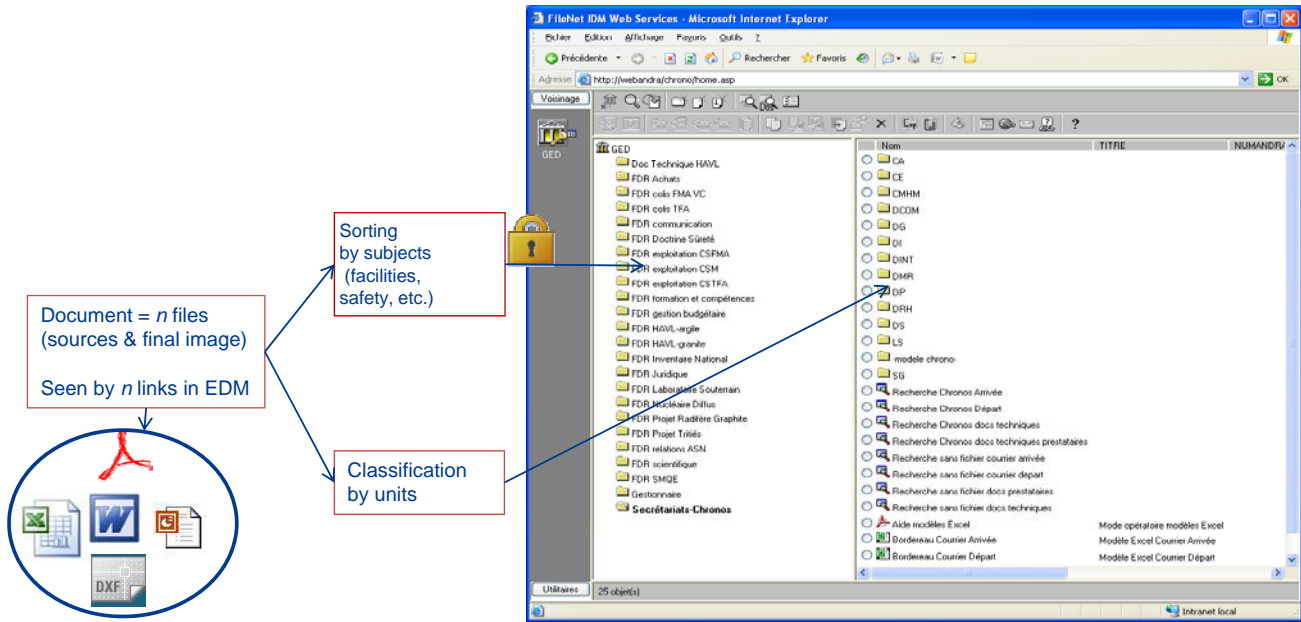
Andra has implemented a quality-assurance system for document management (verification and approval rules) in order to provide high traceability (evolutions through indices, multiple signatures, etc.).

The organisation of “electronical document management” (EDM) in “reference series” allows for transverse views with regard to activities and projects (over and above unit views).

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2) Status Report on Explicit Knowledge



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2) Status Report on Explicit Knowledge Tools

Databases



SAGD
Earth sciences
(data on underground laboratory)



Procom
Desirée
Sesame
(radioactive-waste management)



IN: Obsinv
(general mission of the National Waste Inventory)

Document management



Office automation
Electronic messaging
Etc.



EDM Filenet,
Dams (scientific fact sheets)
Sinequa search engine



Paper archives



Detailed memory
(permanent paper)

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2) Status Report on Explicit Knowledge Instant picture of the situation

Explicit operational capitalisation of the knowledge within a general overview

- Periodical collection of information, (e.g., for HL-LL waste or for the safety reports of the facilities)
 - *Dossier 2001*
 - *Dossier 2005*
 - *Dossier 2009*
- Allows also for structured external communications, notably with authorities

3) Status Report on Implicit Knowledge

Risk awareness to loose implicit knowledge due to staff severances/skill losses:

- Experience feedback from incidents on Andra sites

Management by human resources, transmission from senior to junior staff

Experience feedback from the CSM :

- Large reserve of information in the memory of former workers on the site
- Abundant documentation, but sometimes difficult to trace back (no digital or recorded format)

Some tools (databases) being maintained, but only thanks to current skills → need to preserve and transmit those skills

↳ Support documents of safety reports

3) Status Report on Implicit Knowledge Tools



Informal exchanges, etc. (informal exchanges on Andra themes)



Office automation
Electronic messaging



Modelling hypotheses, phenomenological
analyses of repository situations



Base of REX incidents
(under way)



Andranet fora
Wiki tests, Explore, etc.

Conclusion

The production of useful, but non-formal, documents must be integrated in the structured funds (FDR):

- Office-automation files on internal network
- e-mails
- Fora, exchange servers, wiki

Actions under way:

Project for the full-text digitalisation of CSM archives

EDM evolutions:

- Automated integration of e-mails → fewer losses of implicit knowledge
- Better integration of document production in the EDM → facility to produce explicit knowledge
- Supplies/exchanges by external portal → fewer risks to loose external knowledge
- Integration of publications and archives in the EDM (accessibility, better reference management)