



SMEs Involvement in Projects

KNOW-CONSTRUCT

Internet Platform for Knowledge-based Customer Needs Management and Collaboration among SMEs in Construction Industry



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Current situation in Construction Industry

- Current main restrictions in Construction industry:
 - High fragmentation
 - Low IT level
 - Classical Internet solutions insufficient
 - Need for improvement in communication with customers and effective knowledge sharing as a base for implementation of new co-operation forms
- Overcome these restrictions will have big impact in Europe as Construction Industry represents a significant percentage of European economy.



Research Objectives

- The project aims to develop a **common internet-based platform** for SMEs in **construction sector** to provide two general functionalities:
 - **Customer Needs Management (CNM) System:** a decision making support system regarding the **products** characteristics, applications and other **consultancy** services for SMEs' customers applying "web enabled dialogue"
 - **Knowledge Communities Support (KCS) System:** a system for **SMEs** to support an advanced form of co-operation through the creation of Knowledge Communities of SMEs in CI.
- Platform owned by **Associations**, offering members to establish individual CNM systems and take benefit of KCS System.
- KC system to be used within the Associations to collect and exchange the business area specific **knowledge** among the members (SMEs) in a form of essential expertise, reachable anywhere, at any time.
- A **low-cost** solution, affordable for SME community.
- The system will be tested by project partners and other similar organisations from the CI.

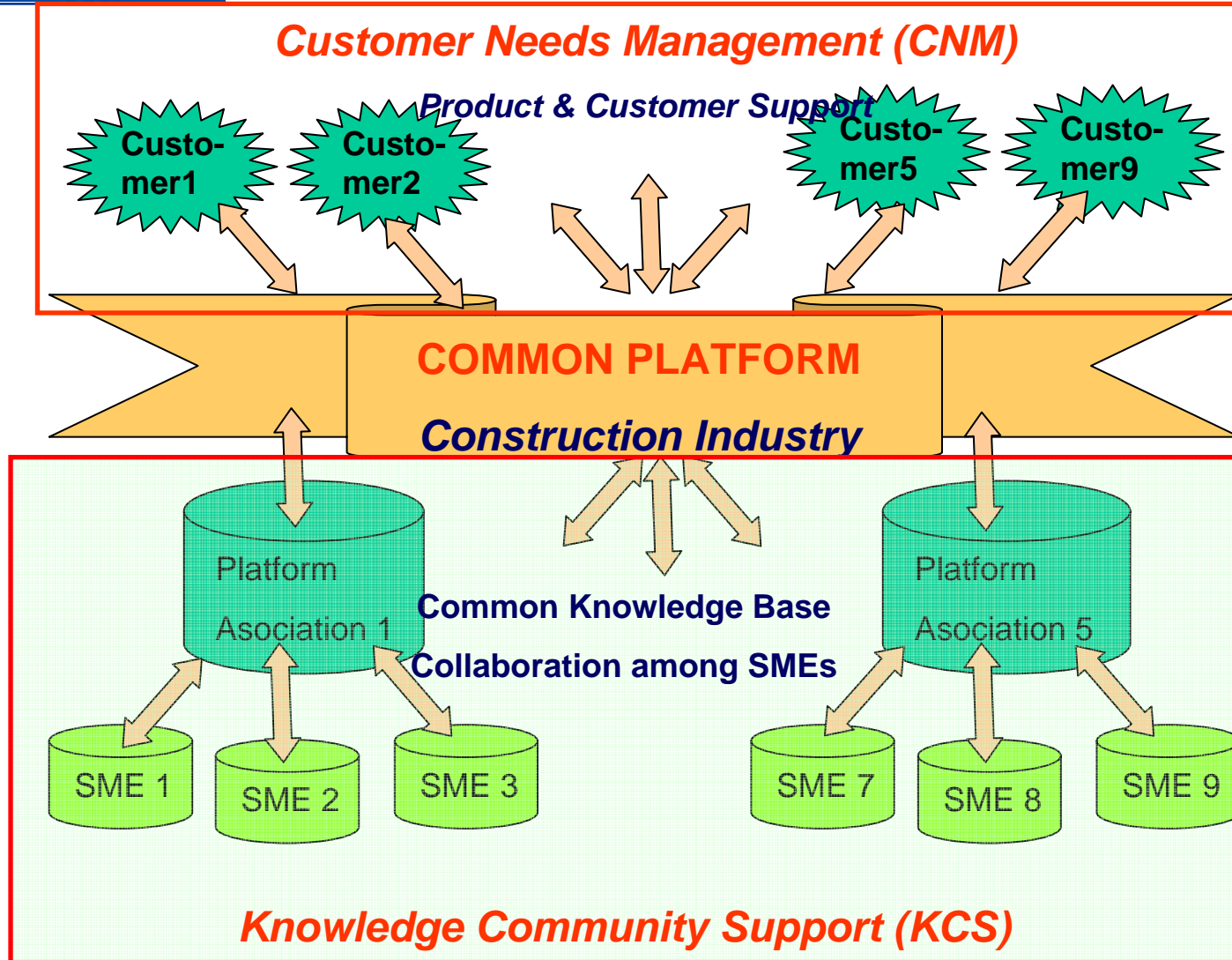




Business objectives

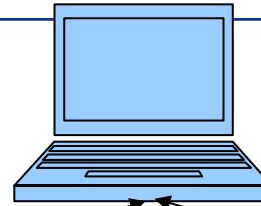
- Technical support to customers, **product technical information**, **problem solving** support, **product/services selection**, **legislative issues**, safety, analysis of **customer feedback**.
- Reduced efforts and time for offers preparation, answer to customer requirements, application instructions, search and selection of products.
- **Technical consultancy** between different actors (architect, manufacturer, supplier, etc.).
- **Best practice** exchange: legislative, health, safety, environment.
- *Some possible business scenarios:*
 - *Search for product information/documents*
 - *Search for construction work (service) information*
 - *Search for Partner*
 - *Customer Feedback*
 - *Navigate legal information*
 - *Register problem/solution*
 - *Consolidate product's application experiences*



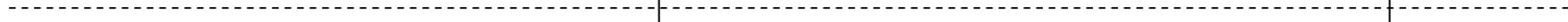
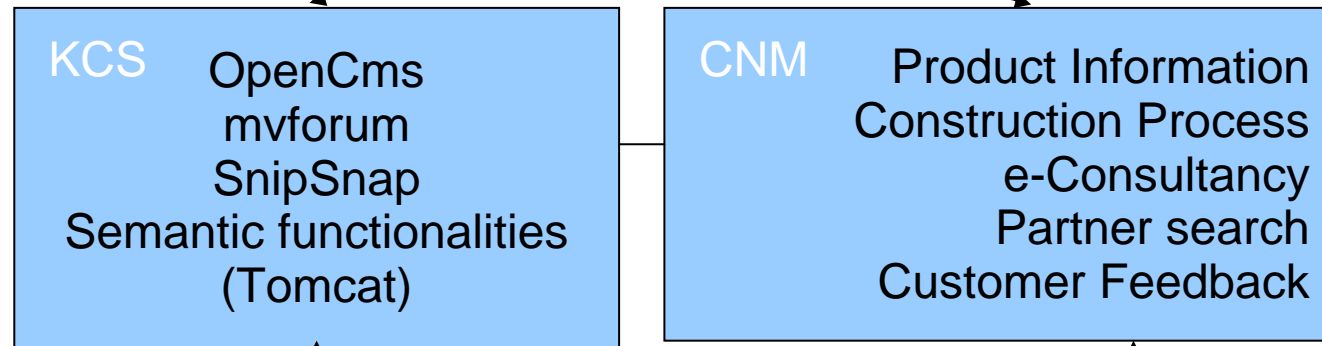


Architecture Model and Functionalities

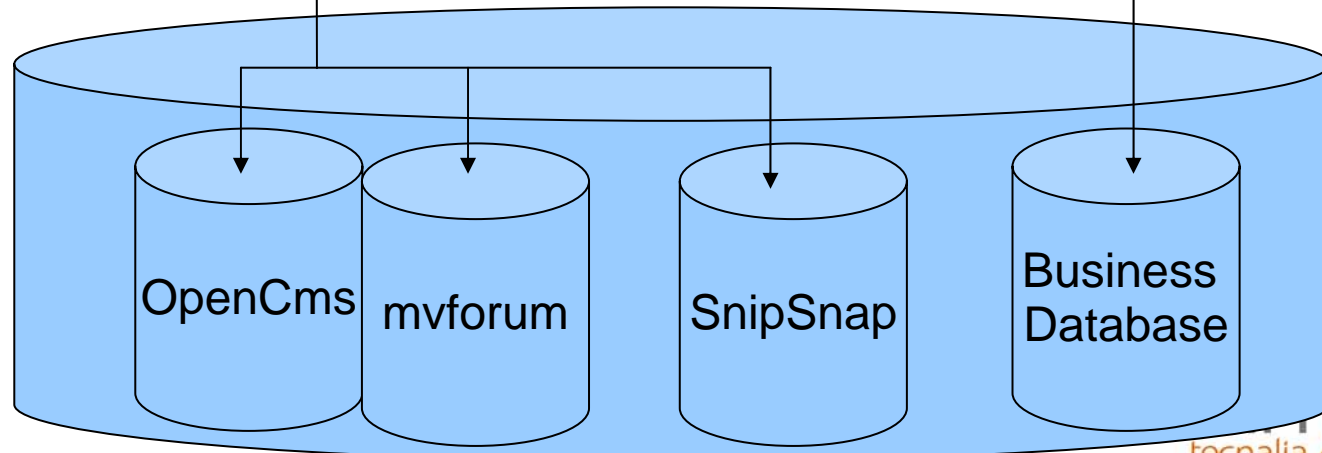
HTML Client (browser)

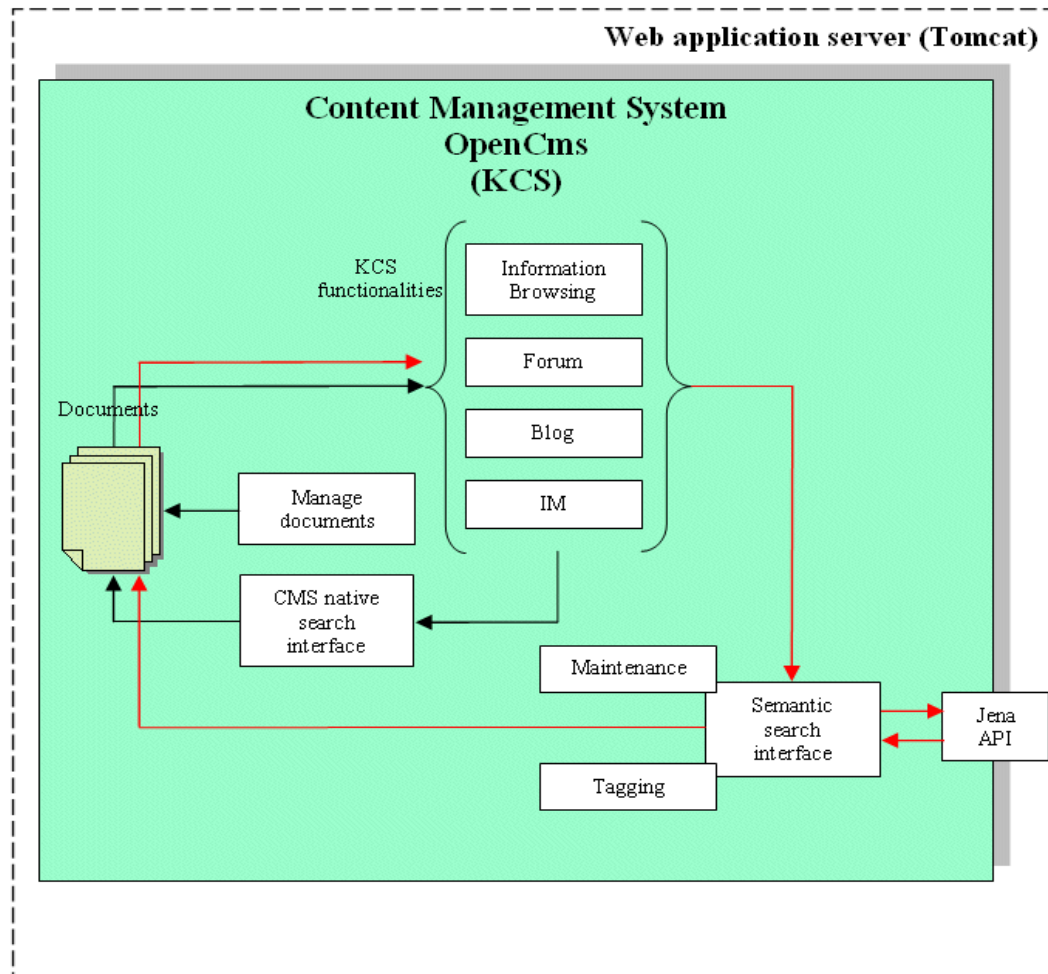


Application Server



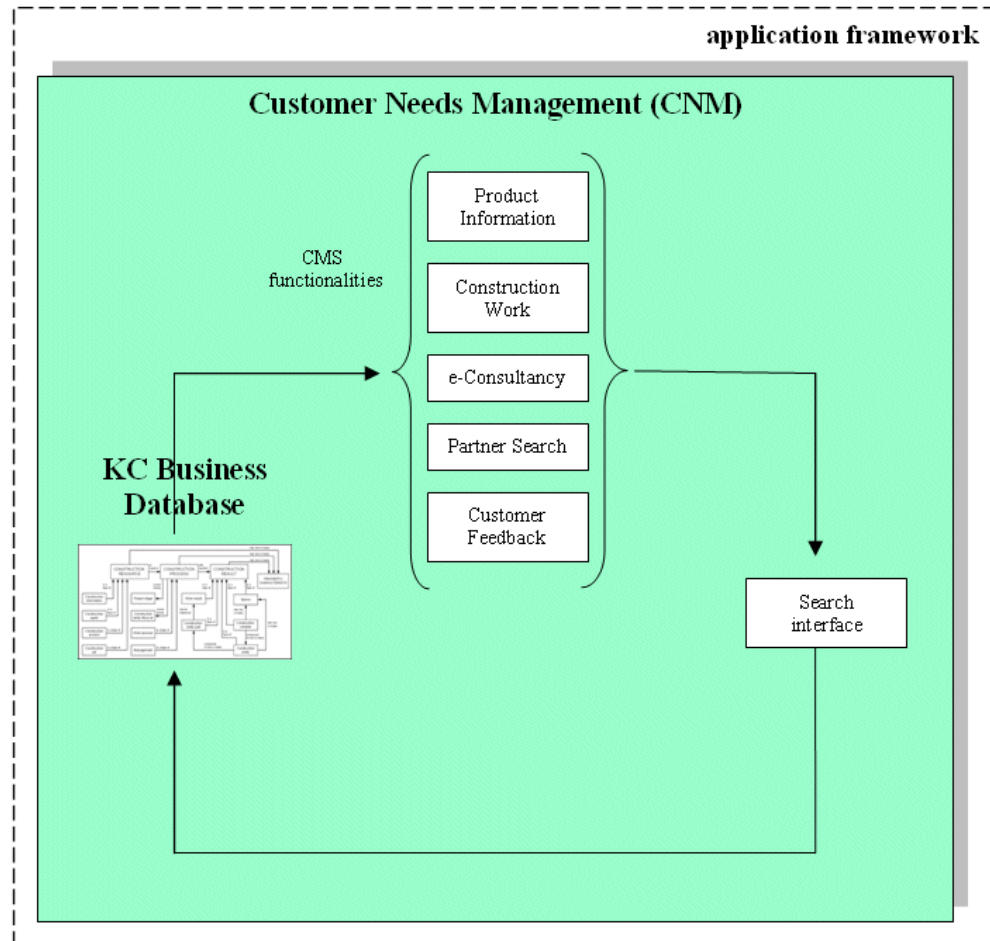
Database





The **traditional** way is “text based search” (black arrows)

The **extended** way is “semantic search” (red arrows). Increased searching capabilities due to the usage of a common CI ontology.



The CNM will extract information from private SME databases in order to provide end users with:

- Searching for Product providers
- Searching for Construction processes providers
- Interactive e-consulting
- Searching for cooperating partners
- Feedback from customer



Development approach

- Create a CMS module
- Implement basic functionalities:
 - Semantic query
 - Document tagging
 - Integration of weblog / forum / IM utilities
- Install the module in associations
- Incrementally add and refine functionalities
 - According to the end-users
 - Online concurrent development using JSP



Conclusions and future work

- Early prototype finalisation
- Training and Feedback from industrial partners
- Full prototype development.
- Ontology localisation (translation into different languages)
- Ontology customisation for each BCs
- Final prototype testing and assessment



Acknowledgement

- Project "***Internet Platform for Knowledge-based Customer Needs Management and Collaboration among SMEs in Construction Industry***" (KNOW-CONSTRUCT) is funded by the European Commission under the Collective Research program.





End of Presentation

**THANK YOU
FOR
YOUR ATTENTION**

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