

## H-KNOW

Increasing number of multidisciplinary complex works in construction industry (CI), particularly for restoration and maintenance of old buildings and cultural heritage (CH) objects, urgently requests an advanced and systematic access to the relevant knowledge related to this area and to the state-of-the-art processes and materials to be applied.

A highly promising approach to enable such an access and to foster advancing of construction industry SMEs toward the knowledge organizations are innovative forms of collaborative knowledge & business networks of SMEs and RTD partners.

**H-KNOW** is a 7<sup>th</sup> FP European project in the area of construction, rehabilitation, restoration and maintenance which will focus on this approach.

The project entails research and development work in two specific areas: establishment & management of collaborative networks in SMEs and management of knowledge and technology enhanced learning.

Following the business objectives summarized as achievement of improved quality/price ratio and on time completion of complex tasks, the project plans to develop

an ICT solution which will include:

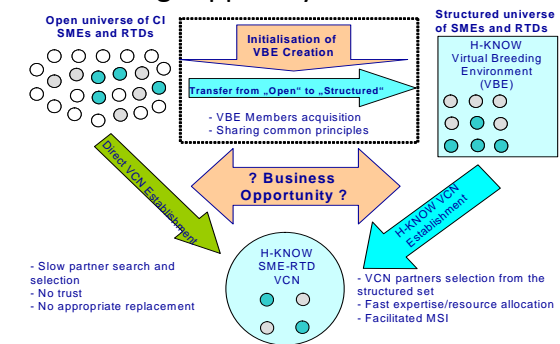
- Advanced support for realization of new forms for SME-RTD networking through their specific knowledge/competence integration.
- Innovative competitive knowledge and training providing services (TEL).

The system should provide the possibility for interactive sharing, generation and reuse of the branch specific knowledge and essential expertise, resulting in creation of new full services with a high added value for end-users.



## Technical Approach

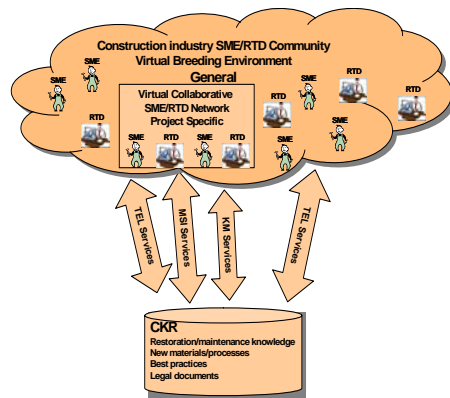
Project Scientific & Technical objectives are to develop a methodology for creation of SME-SME and SME-RTD virtual collaborative networks (VCN) and to develop a SOA-based platform, hosting a set of services to enable effective combination of an advanced knowledge and training provision system, and an innovative business networking support system.



The platform will respond to the following main requirements: Internet based, deployable by SMEs, assuring an ubiquitous access to specific knowledge resources and experts in VCN, recording the knowledge generated along the restoration/maintenance works and structuring it in the learning content form(s) for reuse in the TEL system, supporting open forms of collaboration between actors in the construction/ restoration process, supporting mobile users, security and trust aspects, etc.

The system developed within the project will be tested in four Business Cases (BCs). Each BC will elaborate a specific domain of the restoration/maintenance works in the construction industry, using and creating specific domain knowledge, but the system will be open for collection and structuring (for the later reuse) of the knowledge from all CI restoration/maintenance areas.

The project intends to utilize the emerging technologies for collaborative networks creation based on SOA principles as an optimal approach to cope with requirements regarding flexibility and dynamics of envisaged collaborations in CI, while combination of TEL and KM is likely to provide targeted knowledge sharing facilities and to enable innovative training creation.



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## H-Know

“Advanced Infrastructure  
for Knowledge Based  
Services for Buildings  
Restoring”

NMP-2007-21456

“Collaborative Project Targeted to SMEs”

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