



## **PROJECT H-KNOW**

# **Digital Platforms to Support SMEs in Building Renovation**

**Complete process of rehabilitation  
Historical house in Porto Center**

**Palace of Count Bolhão**

**International Project Week**

**Seinajoki 14 February 2012**

## **BC3 demonstrator - VortalHeadQuarters in Porto**

### **Main Objective:**

Present the procedures that can be taken on the H-Know project to develop the rehabilitation of a historic building in Porto for the headquarters of Vortal SA, demonstrating all phases of the procedure from the competition, the contract, the relationship with subcontractors and specialists and technical support for educational institutions and development.

### **Project: The Palace of Count Bolhão**

The Palace of Count Bolhão, classified by the IGESPAR, is considered one of the most remarkable buildings of the nineteenth century civil architecture of Porto.

The purpose of this project is the completion of the work of recovery and redevelopment of the Palace of Count Bolhão in Vortal headquarters, respecting the historical character and special architectural of the space.

Used in this work are traditional construction techniques in conjunction with the most modern methods of recovery and intervention applied in heritage buildings.

Will be involved in this work several Portuguese and foreign experts in various aspects.

## IMAGES OF THE BUILDING



## Participants and Roles

**Vortal**, Comércio Electrónico Consultadoria e Multimédia, S.A. is a very important company in the Information and Communication Technology and is **owner of the contract**.

**FEUP** - Faculty of Engineer from Porto University is the responsible for the verification of standards and quality

**INESC** Porto - Instituto de Engenharia de Sistemas e Computadores do Porto is a research and technological development that will be responsible for the treatment of the information.

**José Gigante**, Architect, Professor in FAUP (Faculty of Architecture, University of Porto) is the architectural design

**SIKA** - Manufacturer of speciality chemicals for construction.

**3M2P**, Construção e Reabilitação de Edifícios, Lda, company with expertise in rehabilitation of buildings who have been awarded this contract – **Main Contractor**

**STB** - Sociedade Técnica de Tratamento de Aços e Betões, Lda. is a Portuguese partner that is responsible for defects analyses and treating specific construction pathologies.

**TEICOS** Costruzioni s.r.l. is an Italian company that is subcontract for the application of specific old buildings technicals restoration.

**Teusa** - Tecpropasa Euskadi S. A. is a Spanish company that is subcontract for the application of specific old buildings technicals restoration.

**Teitje** - is a German company that will be responsible for the application of the new processes and materials for energy-efficient restoration.

**Andre Cottenceau** is a French company that will be responsible for the stone works.

## BC3 -Main Phase's

**The implementation of this objective will be achieved through the following phases:**

- Phase 1 - Vortal launches a business opportunity through a collaborative space and invite companies to be featured.
- Phase 2. From the acknowledgement of the existence of a business opportunity to the proposal phase
- Phase 3. The work is delivered to 3M2P and passes to a collaborative space where execution simulates the various stages of the contract.
- Phase 4.Follow-up.
- Phase 5. Registration and distribution of information.

## Phase 1. Vortal launches a business opportunity through a collaborative space and invite companies to be featured.

The screenshot displays the Vortal web application interface. At the top, a banner features the 'KNOW' logo with 'Version 2.1' and the text 'Advanced Infrastructure for Knowledge Based Services for Old Buildings Restoring'. Navigation links for 'Home', 'Inbox', and 'My H-Know' are present. The main content area is titled 'Home » BC3 - VortalRehab HeadQuarters - Call for tenders'. Below this, a sub-header reads 'BC3 - VortalRehab HeadQuarters - Call for tenders'. A navigation bar includes links for 'View', 'Contents', 'Forums', 'Images', 'Events', 'Edit', 'Meetings', 'Planner', 'Reports', 'Statistics', and 'Close'. The central part of the interface shows a file explorer view for the directory '/ reconverso\_do\_palcio\_do\_conde\_do\_bolho / Drawings'. A table lists several PDF files:

Name	Modified	Size	Owner
101_ACE_PE_01.pdf	02/12/11 11:54	151 KB	3m2p
101_ACE_PE_02.pdf	02/12/11 11:54	113 KB	3m2p
101_ACE_PE_03.pdf	02/12/11 11:54	109 KB	3m2p
101_ACE_PE_04.pdf	02/12/11 11:54	136 KB	3m2p
101_ACE_PE_05.pdf	02/12/11 11:54	89 KB	3m2p
101_ACE_PE_06.pdf	02/12/11 11:54	154 KB	3m2p
101_ACE_PE_07.pdf	02/12/11 11:54	76 KB	3m2p

On the left side, a sidebar contains a '3m2p' section with links to 'My H-Know', 'Collaborative Spaces', 'Entities', 'Collaborative e-Learning Courses', 'BC1 Window Tool', and 'Log out'. Below this is a 'Search' section with options to search content, partners, collaborative spaces, entities, courses, and in the ontology. On the right side, a 'Recent Activity' section lists events such as 'Carpintaria (interno 3M2P)' and 'BC3 Presentation in Paris meeting'. At the bottom right, there is a search bar with the text 'Enter keywords:' and a note that 'Search is automatically restricted to'.

**José Gigante, places in the collaborative space all the drawings and specifications for completion of the project.**

## Phase 1. Vortal launches a business opportunity through a collaborative space and invite companies to be featured.

Home » Groups » BC3 - VortalRehab HeadQuarters - Call for tenders

**Create Forum topic**

Subject: \*

BC3 - Clarifications to the submission of proposals

Image:

Maximum Filesize: 1 MB

Allowed Extensions: png gif jpg jpeg

Body: \*

☒ Show summary in full view

Fonte

Formato Normal

B I U abc x<sub>1</sub> x<sub>2</sub>

Recent Activity

Carpintaria (interno 3M2P) 2011-11-10 01:44

BC3 Presentation in Paris meeting 2011-11-10 01:41

Levantamento Inicial 2011-11-09 15:56

Logistica (interno 3M2P) 2011-10-26 12:54

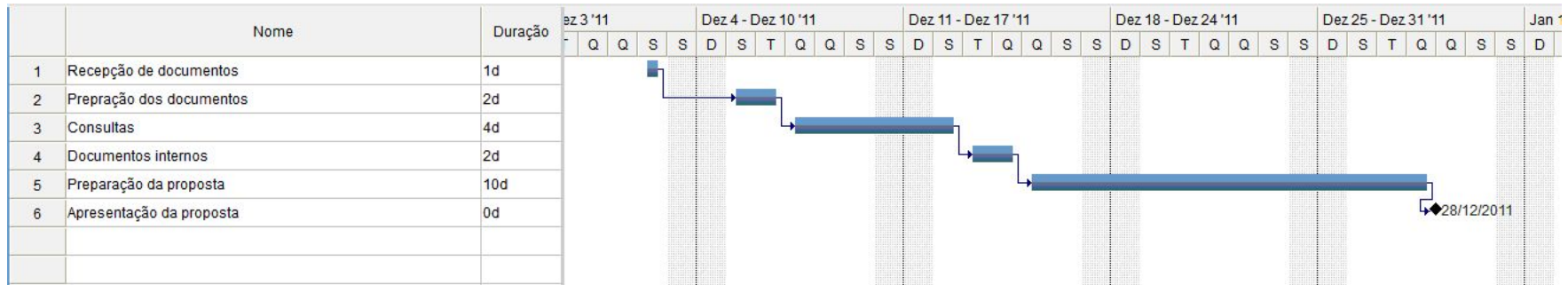
Gestão da Dono de obra. (DO+Proj\*Empreiteiro Geral+Fiscalização) 2011-10-26 12:31

BC3 - VortalRehab HeadQuarters - Call for tenders

Enter keywords:

**Is created a Forum to give clarifications to the submission of proposals**

## Phase 1. Vortal launches a business opportunity through a collaborative space and invite companies to be featured.



Vortal places on the platform the planning for the proposal phase



## **Phase 2 - From the acknowledgement of the existence of a business opportunity to the proposal phase**

- Search and selection of VortalRehab Headquarters collaborative space
- Permission to join the collaborative space
- Creation of a new collaborative space by cloning
- Content management and selection regarding STB specific needs
- New members were invited to join STB collaborite space in order to give some technical support in particular issues (STB staff, usual suppliers,...)
- Technical / commercial discussion using H-KNOW forum and meeting tools
- Proposal sending by e-mail or using H-KNOW meeting tool

## Phase 2 - From the acknowledgement of the existence of a business opportunity to the proposal phase

The screenshot displays a web-based collaborative space forum. The interface is divided into several sections:

- Left Sidebar:**
  - João Graça** profile section with links: My H-Know, Collaborative Spaces, Entities, Collaborative e-Learning Courses, BC1 Window Tool, Log out.
  - Search** section with links: Search content, Search partners, Search collaborative spaces, Search entities, Search Courses, Search In Ontology.
  - Personal News** section with a dropdown menu set to 'All' and a text input field containing '<add new feed>'. There are also '+' and '-' icons.
- Top Navigation:** Home » Groups » BC3 - VortalRehab HeadQuarters - Palacio do Conde do Bolhão - STB PROPOSAL » Forums » General discussion
- Main Content Area:**
  - Simple.Works!** section with 'View', 'edit', and 'clone' buttons, followed by 'General discussion'.
  - Simple.Works! technical issues** section with a link to 'Rehabknow & Son, Lt.'.
  - Groups:** BC3 - VortalRehab HeadQuarters - Palacio do Conde do Bolhão - STB PROPOSAL. Below it are links: 'Add new comment', 'Printer-friendly version', and 'Send to friend'.
  - Masonry reinforcement** post by Diogo Coutinho on Thu, 2012-01-12 19:02. The post content says: 'simpleworks! Hi! Simple Works! can provide cost effective solutions for masonry reinforcement. Please look on content page.' There is a 'reply' link.
  - Technical Information** post by João Graça on Fri, 2012-01-13 17:30. The post content says: 'Hello Diogo, could you send us more technical info regarding crack stitching solutions?' There is a 'reply' link.
  - Crack stitching** post by Diogo Coutinho on Fri, 2012-01-13 17:44. The post content says: 'simpleworks! Hello João, You can find more information in www.helifix.co.uk.' There is a 'reply' link.
- Right Sidebar:**
  - Recent Activity** section listing recent posts: HELIFIX Commercial presentation (2012-01-12 19:07), Helifix solutions (2012-01-12 19:03), Worklike Images (2012-01-12 18:32), Simple.Works! (2012-01-12 16:31), and Rehabknow & Son, Lt. (2012-01-12 16:29).
  - BC3 - VortalRehab HeadQuarters - Palacio do Conde do Bolhão - STB PROPOSAL** section with a search bar labeled 'Enter keywords:' and a 'Search' button. Below the search bar is a note: 'Search is automatically restricted to posts in this Collaborative Space.'
  - Language** section with a dropdown menu set to 'English'.

Technical discussion using collaborative space forum.

### Phase 3. The work is delivered to 3M2P and passes to a collaborative space where execution simulates the various stages of the contract.

3M2P open a new collaborative space to develop the construction phase.

These new collaborative space is a clone from the one that has been created by Vortal initially to accommodate the documents in the tender phase. In this way there is no need to reenter all documents

KNOW Version 2.1  
Advanced Infrastructure for Knowledge Based Services for Old Buildings Restoring

Home    Inbox    My H-Know

Home » BC3 - VortalRehab HeadQuarters - Call for tenders

**Clone of BC3 - VortalRehab HeadQuarters - Call for tenders**

View   Contents   Forums   Images   Events   Edit   Meetings   Planner   Reports   Statistics   **Clone**   Documents

This clone will not be saved to the database until you submit.

Title: \*  
Clone of BC3 - VortalRehab HeadQuarters - Call for tenders

Group language:  
☐ Language neutral  
☐ English  
☐ French  
☐ German  
☐ Italian  
☒ Portuguese, Portugal  
☐ Spanish

Selecting a different locale will change the interface language for all group pages and emails. Users who have chosen a preferred

Collaborative Space

Type of Collaborative Space:

☐ N/A  
☒ Project  
☐ Business Opportunity  
☐ Problem Solving  
☐ Proposal

Select the type of Collaborative space:  
Project : Space for developing a joint construction project.  
Business Opportunity Space: Space for tracking a Business Opportunity.  
Problem Solving In solving a problem by

## Now is time to invite all partners and subcontractors to join the collaborative space

3m2p

- Meu H-Know
- Espaços Colaborativos
- Entities
- Cursos de e-Learning colaborativos
- BC1 Window Tool
- Log out

Search

- Search content
- Search partners
- Search collaborative spaces
- Search entities
- Search Courses
- Search in Ontology

Home » Groups » BC3 - VortalRehab HeadQuarters - Contract Execution

Send invitation

Email addresses or usernames:

bpuga@3m2p.pt - Engineer  
csilva@3m2p.pt - logistic  
jfonseca@3m2p.pt - woodwork  
eveloso@3m2p - equipment

Enter up to 10 email addresses or usernames. Separate multiple addresses by commas or new lines. Each person will receive an invitation message from you.

Personal message:

It was awarded to our company carrying out the work of rehabilitation of the palace of Count Bolhão.  
All information design and implementation has already been introduced on the platform.  
Will briefly marking a coordination meeting.

Optional. Enter a message which will become part of the invitation email.

Send invitation

3m2p

- Meu H-Know
- Espaços Colaborativos
- Entities
- Cursos de e-Learning colaborativos
- BC1 Window Tool
- Log out

Search

- Search content
- Search partners
- Search collaborative spaces
- Search entities
- Search Courses
- Search in Ontology

Home » Groups » BC3 - VortalRehab HeadQuarters - Contract Execution

## Send invitation

Email addresses or usernames:

Ventimola GmbH & Co. Dämmtechnik KG (t.feischen@ventimola.de)  
Teusa S.A. (lzarraoa@teusa.com)  
TEICOS Costruzioni s.r.l. (g.hugony@teicosgroup.com)  
SARL (cotenceau-tailledepierre@wanadoo.fr)  
STB Sociedade Técnica de Tratamento de Aços e Betões, Lda. (jgraca@stb.pt)

**International Partners**

Enter up to 10 email addresses or usernames. Separate multiple addresses by commas or new lines. Each person will receive an invitation message from you.

Personal message:

It was awarded to our company carrying out the work of rehabilitation of the palace of Count Bolhão.  
All information design and implementation has already been introduced on the platform.  
Will briefly marking a coordination meeting.

Optional. Enter a message which will become part of the invitation email.

Send invitation

Is create several discussion forums to interchange with various partners.

3m2p

- ▶ My H-Know
- ▶ Collaborative Spaces
- ▶ Entities
  - Collaborative e-Learning Courses
  - BC1 Window Tool
  - Log out

Search

- Search content
- Search partners
- Search collaborative spaces
- Search entities
- Search Courses
- Search in Ontology

Home » Groups » BC3 - VortalRehab HeadQuarters - Call for tenders » Forums

**General discussion**

View

Contents

Forums

Images

Events

Edit

Meetings

Planner

Reports

Statistics

Clone

Documents

Post new Forum topic

Topic	Replies	Created	Last reply▼
 Logistica (interno 3M2P)	0	11 weeks 4 days ago by Guest User	n/a
internal forum of 3M2P			
 Carpintaria (interno 3M2P)	0	9 weeks 3 days ago by Guest User	n/a
 Gestão da Dono de obra. (DO+Proj*Empreiteiro Geral+Fiscalização)	0	11 weeks 4 days ago by Guest User	n/a
Forum for discussions with Owner of work			



# TEL APPLICATION

□ Guide for using TEL

□ WiHKi

□ Modular case

□ Innovation material or technique

□ Complete case

# TEL APPLICATION

- **Modular**

- **Helifix system for masonry**




- **Five modules (system description, documentation, techniques, specifications and case studies)**

- **Registration, calendar, learning objectives, tutor, documents, links**



Firefox
Course: HK - BC3
dionisio.inescporto.pt:8282/drupalv2/moodle/course/view.php?id=11
Google

# Learning Courses

H-KNOW ▶ BC3-MRuH

Switch role to... Turn editing on

## People

Participants

## Calendar

January 2012

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

## Events Key

Global
 Course  
 Group
 User

## Administration

- Turn editing on
- Settings
- Assign roles
- Grades
- Groups
- Backup
- Restore
- Import
- Reset
- Reports
- Questions
- Files
- Unenrol me from BC3-MRuH

## Topic outline

# Masonry Repair using HELIFIX systems

### PRESENTATION

This training module is an introduction to HELIFIX masonry reinforcement systems.

**Abstract:**  
 This course gives a comprehensive knowledge of common masonry defects and problems where Helifix repair techniques can be used to solve and repair.

**Course Details:**

- Explain principles of damage investigation, of cause diagnosis and design of repair scheme.
- Not intended to transform contractors into surveyors or engineers.
- In conjunction with approved Helifix installers the objective is to become the first support for clients with masonry problems.
- Providing technically sound, cost-effective solutions to the problems of masonry failure.
- Be aware about causes of the damage and that theses have been correctly diagnosed.

Course plan is composed by five modules:

- MODULE 1. Helifix & Forms of Construction**
- MODULE 2. Masonry Structural Assessment**
- MODULE 3. Principles of the Helibeam System**
- MODULE 4. Helifix Repair Techniques**
- MODULE 5. Helifix Project Form & Repair Procedures**

### Participation and Communication

## Latest News

Add a new topic...  
(No news has been posted yet)

## Upcoming Events

There are no upcoming events

Go to calendar...  
New Event...

**Phase 5. Registration and distribution of information.**

**Advantages in the organization through collaborative spaces.**

# H-KNOW BC3 RELATED COLPLACES CLONING COLPLACES

partner1 (admin)  
partner 2  
partner 3  
...

**colspace**  
call for  
tenders

related space

**colspace**  
VerbalRehab  
HeadQuarters -  
Contract Execution

- defining relationships between colPlaces
- quickly creation of a related colPlace by cloning an existing one and customising it

partner1 (admin)  
partner 2  
partner 3  
**partner 4**  
**partner 5**

# H-KNOW BC3

## COLPLACE SELECTIVE CONTENT PERMISSIONS

BC3 partners can decide which content created in the collaborative spaces can be shared with the community

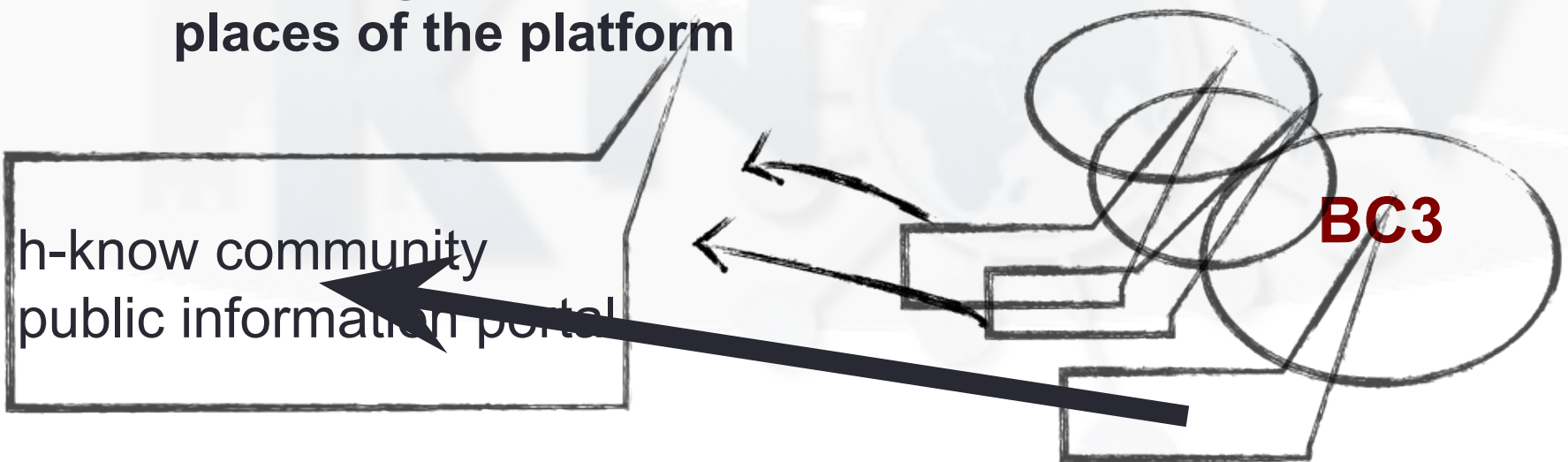
**colspace**  
type:project  
Vortal Headquarters  
in Porto

Content	Permission
Blog	Private
Page 1	Private
...	...
Document 4	Public



# H-KNOW BC3

With the selective permission management of the colSpaces content it is possible to collect, organise and present dynamically the information and knowledge shared in all the collaborative places of the platform



# H-KNOW BC3

**h-know  
business  
community**

**Content**  
collection,  
organising,  
presentation

**colspace**  
call for tenders

Content	Permission
Blog	Private
Page 1	Private
...	...
Document 4	Public
VortalRehab HeadQuarters - Contract Execution	

Content	Permission
Blog	Private
Page 1	Private
...	...
Document 4	Public

