

BIMclay Project

IMPROVE TECHNIFICATION AND LCA QUALIFICATION OF WORKERS IN CERAMIC SECTOR WITH THE SUPPORT OF BIM APPLICATIONS

INTELLECTUAL OUTPUT 1. Task A4
TECHNICAL CONCLUSIONS OF THE WORKSHOP IN COIMBRA, April 12th, 2018



Consortium members: Associação Portuguesa da Indústria de Cerâmica (APICER), Centro Tecnológico da Cerâmica e do Vidro (CTCV), Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales (CTM), Asociación Española de Fabricantes (Hispalyt), Institute of Entrepreneurship Development (IED).



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INTRODUCTION

This workshop has been used as the presentation of the BIMclay project to professionals in Portugal and as an official presentation of the IO1 corresponding to the “Establishment of common learning outcomes on clay placing methods, Life Cycle Analysis (LCA) and relative regulations” of the project.

The purpose of this workshop, in addition to being used as an official presentation of the project, is to collect information from the event attendees, who are experts in the different fields of ceramic sector. After the research in the project is performed, the different collecting placing systems was analysed and discussed, highlighting the strong and weak points of each of the systems used in every country, as well as their adaptation to the current situation and needs of the demand of clay products market.

Surveys were used as a means of collecting information, to take advantage of the feedback from experts to be used as validation of the event and the project.

At the entrance to the event, each of the attendants was given a survey. The survey was conducted voluntarily, obtaining a great response from the attendants who showed a high percentage of participation.

The workshop had a total of 25 attendants. 4 of them, were part of the project consortium. Of the remaining 21 attendants were professionals from the ceramic sector.

The feedback from experts’ will be used to make a methodology to be applied for coming courses and contents. A special focus will be done in the discussion of the different clay placing systems, with the organization of round tables covering different topics. Experts in ceramic sector will attend this event and participate in the round tables.

At the end of the interventions scheduled in the agenda, Victor Francisco (CTCV) moderated a round table discussion with the consortium members and the professionals who are experts in ceramic in the fields related to the project.



AGENDA

The event was celebrated on 12th April 2018 in Rua Coronel Veiga Simão, Coimbra (Portugal). The agenda of the Workshop is attached below:

Thursday, 12th **Workshop. Place: Rua Coronel Veiga Simão, 3025-307 - Coimbra (Portugal)**

09.15 – 09.30	Registration Registo
09.30 – 10.00	Presentation of the BIMclay project and the Consortium. [APICER/CTCV] Apresentação do projeto BIMClay e do consórcio
10.30 – 11.00	Objectives and results of the BIMclay project. [CTM – David Caparros] Objetivos do projeto BIMclay
11.00 - 11.30	Current situation of Ceramic Sector related to LCA [CTCV] Avaliação de Ciclo de vida na indústria cerâmica – e ferramentas (ex.DAPs – Declarações Ambientais de Produto) no sector cerâmico
11.30 – 12.30	Implementation of BIM technologies in Ceramic Sector Round table Implementação de tecnologias de BIM e da ACV/DAP no sector cerâmico Mesa redonda com a presença de <ul style="list-style-type: none"> • Cluster Habitat Sustentável • Stratbond • Empresa industrial do setor cerâmico
12.45	Closure of the Workshop Encerramento

According to the agenda of the Workshop, were made the following interventions:

1. Welcome participants by host organization (CTCV). It was carried out by Mr. Victor Francisco, Manager of Centro Tecnológico da Cerâmica e do Vidro.
2. Presentation of the BIMclay project and the Consortium. It was carried out by Mr. Victor Francisco, Manager of Centro Tecnológico da Cerâmica e do Vidro (CTCV) and Ms. Silvia Machado Associação Portuguesa da Indústria de Cerâmica (APICER).
3. Objectives and results of the BIMclay project. Mr. David Caparrós Pérez, the co-coordinator of the project and the contact person of CTM, oversaw explaining this point.
4. Current situation of Ceramic Sector related to LCA, presented by Ms. Marisa Almeida (CTCV).
5. Implementation of BIM technologies in Ceramic Sector. It was presented and explained by Ms. Cláudia Antunes, BIM consultant (Stratbond).
6. Round Table. The moderator was Mr. Victor Francisco (CTCV).



The Workshop also was attended by professionals of recognized prestige who were part of a Table of Experts, where they first told about their experiences in relation to ceramic sector and EPDs from a business point of view:

- **Cluster Habitat Sustentável** www.centrohabitat.net
- **Stratbond** www.stratbond.com
- **Empresa industrial do setor cerâmico**

All the presentations of the Workshop will be uploaded to the BIMclay platform so that they are accessible and can serve as training and information materials related to the BIMclay project to all interested parties in the website of the project:

<http://www.bimclay.eu>

A brief description of all interventions carried out during the Workshop as well as significant conclusions of each presentation are explained below.



1. DESCRIPTION OF THE WORKSHOP. INTELLECTUAL OUTPUT 01/A4

1.1. Presentation of the BIMclay project and the Consortium. Victor Francisco (CTC V)

Mr. Victor Francisco presented the project, which included the main and resulting aims, activities carried out and results in the short and long term, also he presented the consortium and the importance of each of the partners, dividing its origin into three different areas vital to the achievement of the objectives. These are associations, companies and research centres.

Ms. Machado, highlighted attendees' feedback to improve the quality of the results of the Project and encouraged the participants to actively participate in the workshop round table.

Presentation available in *"APENDIX I_Presentation of Victor Francisco"*.

1.2. Objectives and results of the BIMclay project. David Caparrós (CTM)

PhD David Caparrós began its speech talking about the current growing trend, as well as the future need to incorporate environmental criteria in the ceramic sector.

Mr. Caparrós based his intervention on the detailed description of the tasks of the project. He presented the different studies carried out on regulations and EPDs related to the objectives of the project.

Presentation available in *"APENDIX II_Presentation of David Caparrós"*.

1.3. Current situation of Ceramic Sector related to LCA. Marisa Almeida (CTCV)

Ms. Marisa Almeida presented the current situation in the ceramic sector and the crucial role that sustainability plays in the outlook of the sector. Ms. Almeida spoke about ecolabels and Environmental Product Declarations and their degree of implementation in Portugal. It also addressed the different environmental products indicators and LCA as a support tools used for sustainable control of clay products. And she also showed a series of practical examples of EPD and LCA product used in Portugal.

Presentation available in *"APENDIX III_Presentation of Marisa Almeida"*.

1.4. Implementation of BIM technologies in Ceramic Sector. Cláudia Antunes (Stratbond)

Ms. Cláudia Antunes presented BIM technologies and the current situation about its implication in the ceramic sector. Ms. Antunes showed the dimensions, applications, advantages, challenges and weaknesses of BIM technologies at the present time.

Presentation available in *“APENDIX IV_Presentation of Cláudia Antunes”*.



As the agenda established, once all presentations had been finished, a round table was held, in which participants had the opportunity to express their doubts and concerns regarding the Project to workshop speakers.

Victor Francisco moderated the round table, where great and influential professionals of the ceramic sector took part and some large companies related to ceramic and clay exchanged impressions and provided solutions to meet the current needs of the sector. All this feedback will serve as a basis to all the products and results of the project.



2. NUMBER OF ATTENDEES

The total attendance to the BIMclay Workshop were 25 attendants, of which 4 are participants of the BIMclay project:

Associação Portuguesa da Indústria de Cerâmica (APICER)

- Sílvia Machado

Centro Tecnológico da Cerâmica e do Vidro (CTCV)

- Victor Francisco
- Marisa Almeida

Asociación Empresarial de Investigación Centro Tecnológico del Mármol, Piedra y Materiales (CTM).

- David Caparrós Pérez

In conclusion, the total number of attendants, who they are not linked to the organisations of the project, were 21.



3. QUESTIONNAIRE

During the workshop, a survey was distributed to consider the opinion of the attendants about the event and the BIMclay project, where the total number of surveys compiled were 21.

Next, it can be checked an example of the questionnaire provided.

1. Overall, how satisfied were you with the event?

Please tick a box in the respective line.

Very satisfied	Rather satisfied	Neither satisfied nor unsatisfied	Rather unsatisfied	Not satisfied at all
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. To what extent do you agree or disagree with the below statements?

Please tick a box in each line.

	Fully agree	Rather agree	Neither agree nor disagree	Rather disagree	Fully disagree
Event contents were of my interest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel now better informed on various aspects related to the ceramic sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I now better understand the benefits of the BIMclay approach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The event supports me in strengthening my knowledge, competences and skills regarding BIM technologies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. To what extent did the event show the following attributes?

Please tick a box in each line.

	Fully agree	Rather agree	Neither agree nor disagree	Rather disagree	Fully disagree
Contents were clearly understandable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Contents were interesting and motivating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Event was well-organized and well-structured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall atmosphere was pleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

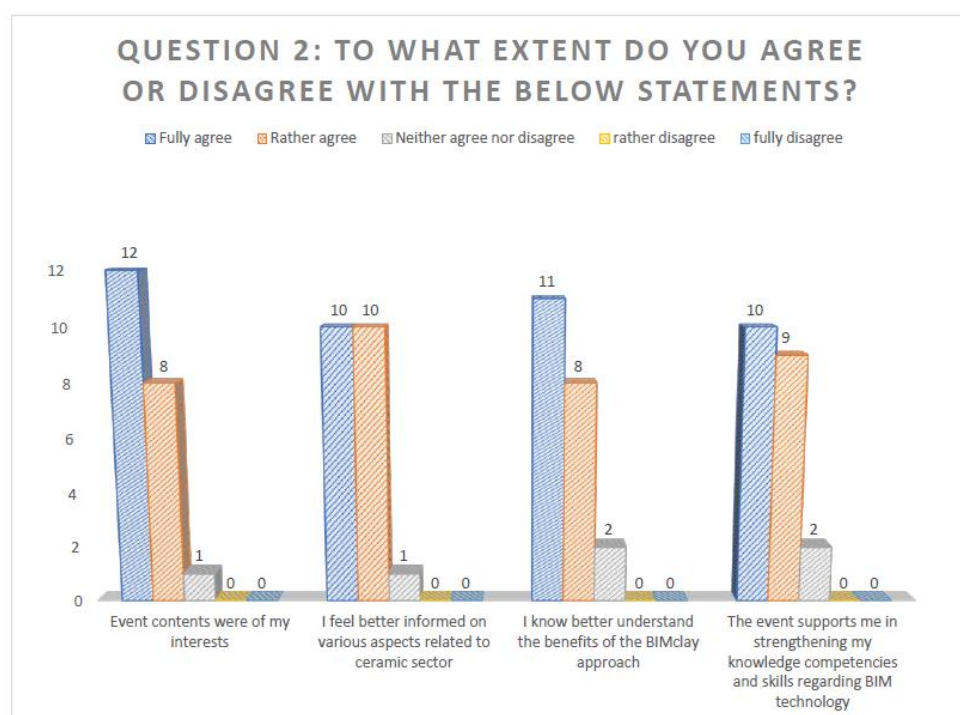
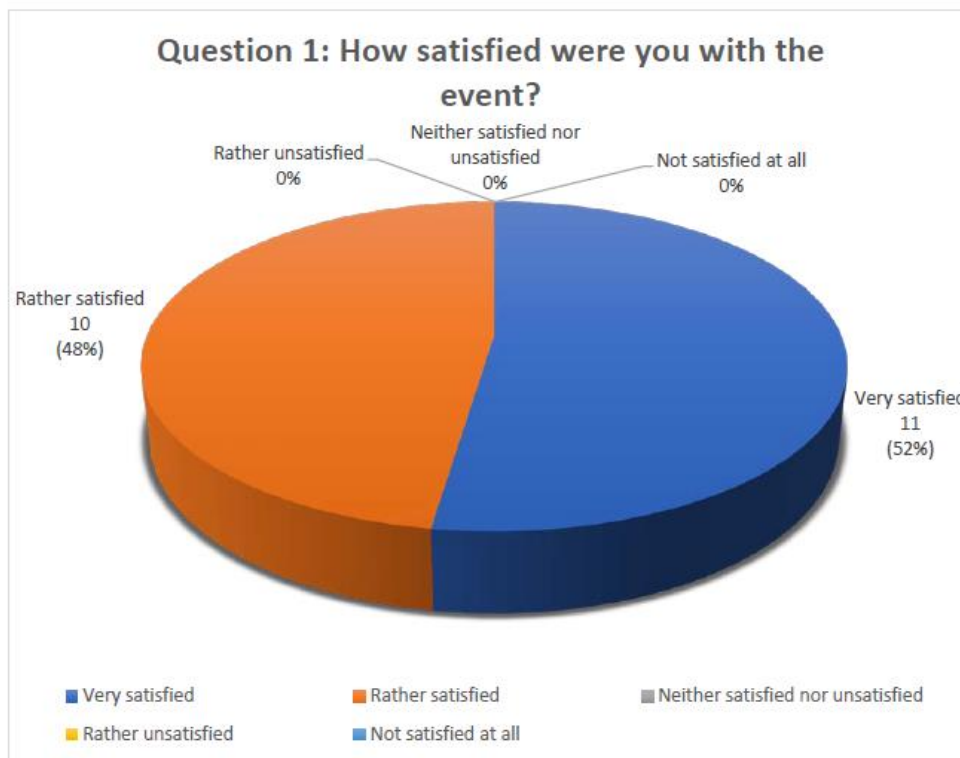
4. Do you have any further comments and recommendations on the event? What could have been done better?

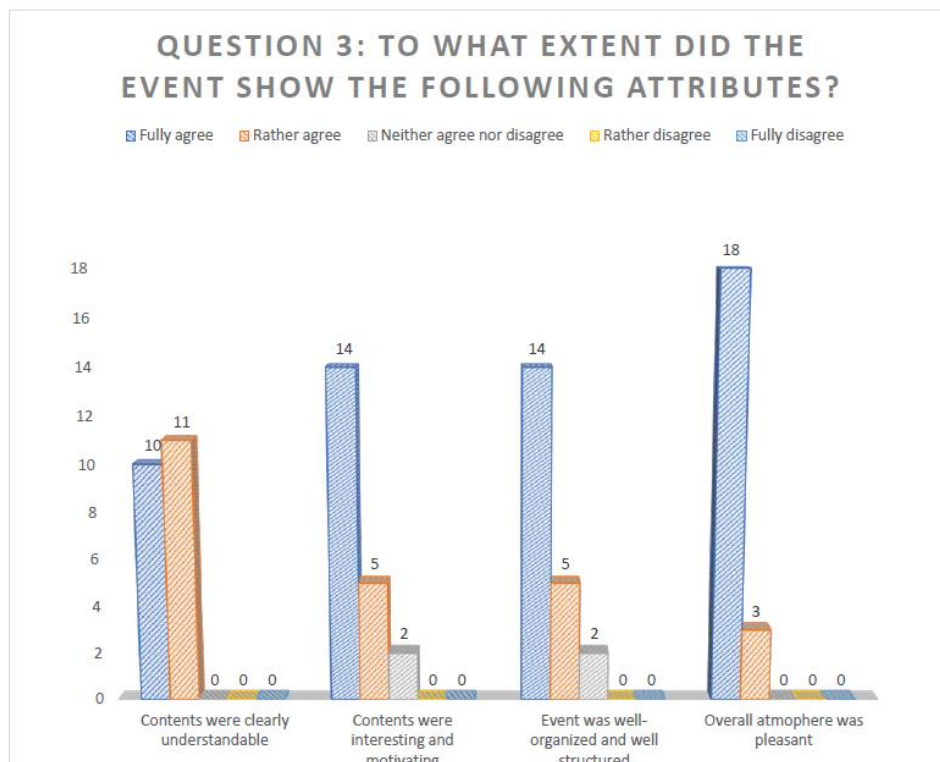
Please answer in the flip side.

4. CONCLUSIONS

The results collected through the questions reflected in the 21 questionnaires, which have been replied by attendees, are summarised below.

The answers collected for the questions are reflected in the following pictures:





The BIMclay project was very well received by the participants of the Workshop. During the event, the need to establishment of a common learning outcomes on clay placing methods and evaluate the impact of these systems and products on the environment were discussed.

This Workshop on Clay Placing Methods, Life Cycle Analysis and relative Regulations in the ceramic sector, allowed the presentation of the project to the Portuguese ceramic industria, as well as to the different representatives related to ceramic and the environment, to disseminate the project and involve the companies in it, through their opinion on the intellectual products developed and in the development phase.

The presentation of the combination of BIM technologies, ceramic sector and LCA, received high praise from the attendees, who felt that BIMclay could respond to a real need in the sector.

The external expert who attended the workshop gave a very positive assessment of the progress of the project and the involvement of the consortium.

The feedback gathered through the surveys and round table, will greatly help to achieve the proposed objectives and results, as all the improvements considered will be studied to be implemented in all phases of project development.



The proposals compiled by the attendees, related to how to implement this first intellectual output of the project. More specifically, all those suggestions that help to improve the tasks carried out and presented in the workshop (O1/A1 Comparative study on the normative for placing the clay products; O1/A2 Methods and procedures used for placing clay products; O1/A3 Comparative study on Life Cycle Analysis of clay products in the participant countries Methods and procedures used for placing clay products), as well as recommendations for next task of Intellectual Output 2 and 3 about the BIMobjects and the ORC (Online Resource Centre).