

**SAFECAST
MEETING**

A. L. Soares-Pereira
J. Barros Viegas
R. Reguengo
F. Saraiva
L. Mendes
E. Coelho




Madrid
15-16th April 2010

**Performance On Innovative Mechanical Connections In
Precast Building Structures Under Seismic Conditions**

SAFECAST

1^o Year Meeting

LOEMCO LABORATORY

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Summary:

- **Work package number 1**
Literature survey and identification of needs
 - ✓ Design exercise – comparative study

- **Work package number 2**
Experimental activity on new and existing connections
 - ✓ **Tasks 2.1:** Definition of the test programme and distribution of experimental tasks;
 - ✓ **Tasks 2.2:** Tests on simple units,
 - ✓ **Tasks 2.3:** Tests on joints and subassemblies,
 - ✓ **Tasks 2.4:** Shaking table tests

SAFECAST – 1st year meeting

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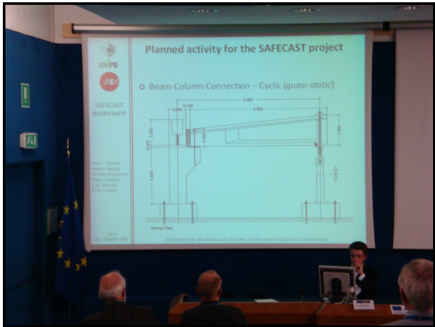

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Work Package 1

Literature survey and identification of needs

✓ **Task 1.1: Kick-off Workshop**
Technical Session 2 – “National perspectives, Portugal”

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Work Package 1

Literature survey and identification of needs

✓ **Task 1.2:** Literature survey on design procedures for precast structures

- ✓ Behaviour of long span precast concrete structures under horizontal actions
- ✓ Cyclic tests on column-to-column, column-to-strong-element, beam-to-column and beam-to-strong-element connections
- ✓ Experimental Development Stages of an Innovative Earthquake-resistant Precast Frame System - The performance of the system is similar to the equivalent monolithic solution
- ✓ Beam-column connection for precast concrete structures in seismic regions
- ✓ Seismic Behaviour of Hollow-core Slabs. Experimental assessment stages

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Work Package 1

Literature survey and identification of needs

- ✓ **Task 1.2:** Literature survey on design procedures for precast structures
 - ✓ PRECAST-Seismic Tests of a RC Precast Building System



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Work Package 1

Literature survey and identification of needs

- ✓ **Task 1.2:** Literature survey on design procedures for precast structures
 - ✓ Design exercise – comparative study (Serena)

ponto de situação

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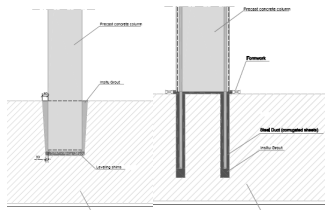
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Work Package 1

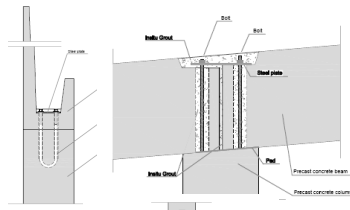
Literature survey and identification of needs

✓ **Task 1.3:** Literature survey on connection typologies

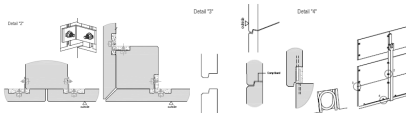
Column - Foundation






Beam - Column



Cladding - Structure



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Work Package 1

Literature survey and identification of needs

✓ **Comon products used in Portugal**



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PLANNED ACTIVITY FOR THE SAFECAST PROJECT

Portuguese Group

- **Work package number 2**
Experimental activity on new and existing connections
- ✓ **Tasks 2.1:** Definition of the test programme and distribution of experimental tasks;
- ✓ **Tasks 2.2:** Tests on simple units,
- ✓ **Tasks 2.3:** Tests on joints and subassemblies,
- ✓ **Tasks 2.4:** Shaking table tests

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- **Work package number 2**
Experimental activity on new and existing connections




Test Programme:




- Beam-to-Column Connection
Cyclic (quasi-static)
- Cladding Panels-to-Structure Connections
(Dynamic)
- 2 Models

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- **Work package number 2**
Experimental activity on new and existing connections
- **Cladding Panels-to-Structure Connections (Dynamic)**

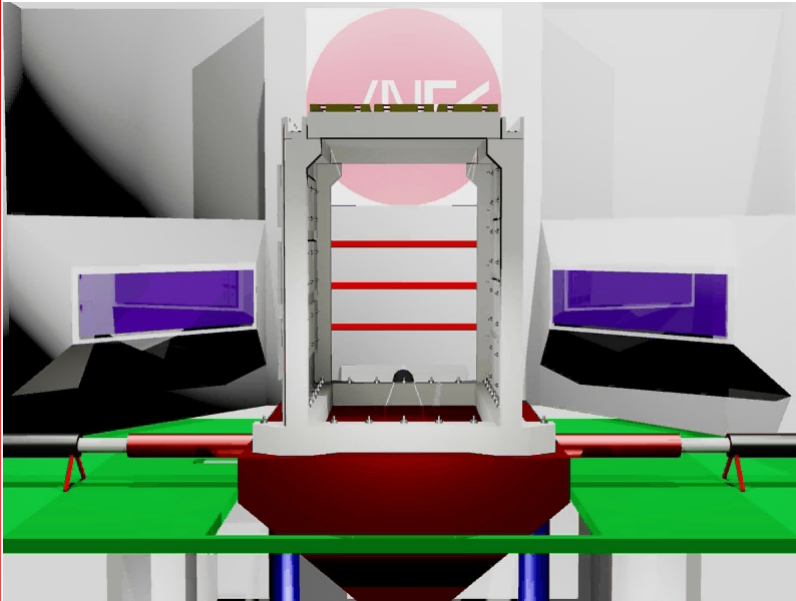







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◦ **Cladding Panels-to-Structure Connections (Dynamic)**



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