

# **EuCARD2 WP11 (Materials for Collimation) kick-off and tasks meeting**

## **Report of Contributions**

Contribution ID: **0**

Type: **not specified**

## Welcome speech and general introduction

*Monday 9 December 2013 10:00 (10 minutes)*

**Presenter:** Dr REDAELLI, Stefano (CERN)

Contribution ID: 1

Type: **not specified**

## **Review of EuCARD WP8 achievements and main objectives of EuCARD2 WP11**

*Monday 9 December 2013 10:10 (20 minutes)*

1. Background on EuCARD WP8
2. WP8 objectives achieved and in progress
3. Organization and main goals for EuCARD2 WP11
4. Rough time schedule for EuCARD2 WP11

**Presenter:** BERTARELLI, Alessandro (CERN)

Contribution ID: 2

Type: **not specified**

## **GSI: introduction, overview of WP8 work and possible contributions to WP11**

*Monday 9 December 2013 10:30 (20 minutes)*

**Presenter:** TOMUT, Marilena (GSI)

Contribution ID: 3

Type: **not specified**

## **RHP-Technology: introduction, overview of WP8 work and possible contributions to WP11**

*Monday 9 December 2013 11:20 (20 minutes)*

**Presenter:** Mr KITZMANTEL, Michael (RHP Technology)

Contribution ID: 4

Type: **not specified**

## **Politecnico di Torino: introduction, overview of WP8 work and possible contributions to WP11**

*Monday 9 December 2013 11:40 (20 minutes)*

**Presenter:** PERONI, Lorenzo (Politecnico di Torino)

Contribution ID: 5

Type: **not specified**

## **University of Malta: introduction, overview of WP8 work and possible contributions to WP11**

*Monday 9 December 2013 12:00 (20 minutes)*

**Presenter:** CAUCHI, Marija (University of Malta (MT))

Contribution ID: 6

Type: **not specified**

## **RRC-Kurchatov Institute: introduction, overview of WP8 work and possible contributions to WP11**

**Presenter:** Prof. RYAZANOV, Alexander (National Research Centre Kurchatov Institute (RU))

Contribution ID: 7

Type: **not specified**

## **University of Manchester: introduction, overview of WP8 work and possible contributions to WP11**

*Monday 9 December 2013 14:15 (20 minutes)*

**Presenter:** APPLEBY, Robert Barrie (School of Physics and Astronomy Schuster Laboratory-University o)

Contribution ID: 8

Type: **not specified**

## **Royal Holloway University of London: Overview and contribution**

*Monday 9 December 2013 14:35 (20 minutes)*

**Presenter:** GIBSON, Stephen (University of London (GB))

Contribution ID: 9

Type: **not specified**

## **University of Huddersfield: introduction, overview of WP8 work and possible contributions to WP11**

*Monday 9 December 2013 14:55 (20 minutes)*

**Presenter:** Mr FLETCHER, Simon (University of Huddersfield)

Contribution ID: **10**

Type: **not specified**

## **KUG: introduction, overview of WP8 work and possible contributions to WP11**

*Monday 9 December 2013 15:40 (20 minutes)*

**Presenter:** DEBOY, Daniel (Universitaet Musik u. darst. Kunst (AT))

Contribution ID: **11**

Type: **not specified**

## **CSIC: introduction, overview of WP8 work and possible contributions to WP11**

*Monday 9 December 2013 16:00 (20 minutes)*

**Presenter:** RESTA LOPEZ, Javier (Universidad de Valencia (ES))

Contribution ID: 12

Type: **not specified**

## **Introduction to Task 11.2 and 11.3: scope, main goals and preliminary roadmap. Status of R&D collimator materials and future activities at CERN**

*Tuesday 10 December 2013 09:00 (30 minutes)*

1. Scope and objectives of Tasks 11.2 and 11.3
2. Proposal of a preliminary roadmap
3. Status of R&D of novel materials for collimation
4. Materials to be characterized in the scope of the WP
5. Numerical tools for high intensity impacts simulations.
6. First ideas for a multi-material test in HiRadMat2

**Presenter:** BERTARELLI, Alessandro (CERN)

Contribution ID: 13

Type: **not specified**

## **GSI: Possible Contributions to tasks 11.2 and 11.3 and Work Proposals**

*Tuesday 10 December 2013 09:30 (30 minutes)*

1. On-line and in-situ SEM monitoring of (heavy) ions radiation-induced damage on material structure (with particular reference to carbon-based composite materials)
2. On-line thermal camera studies of thermal conductivity degradation induced in irradiated materials (with particular reference to carbon-based composite materials)
3. Off-line RAMAN spectroscopy on irradiated materials
4. Study of dynamic effects induced by pulsed particle beams (thermal fatigue)
5. Laser induced spall studies on pristine and irradiated materials (dynamic characterization)

**Presenter:** TOMUT, Marilena (GSI)

Contribution ID: **14**

Type: **not specified**

## **RRC-KI: Possible Contributions to WP11 and Work Proposals**

1. Results after irradiation of CuCD
2. Progress on on-going irradiation studies
3. Studies and proposals for the development of Equations of State for relevant materials

**Presenter:** Prof. RYAZANOV, Alexander (National Research Centre Kurchatov Institute (RU))

Contribution ID: 15

Type: **not specified**

## **Politecnico di Torino: Possible Contributions to Tasks 11.2 and 11.3 and Work Proposals**

*Tuesday 10 December 2013 10:00 (30 minutes)*

1. Development of strength and failure models for relevant materials (mechanical tests at different temperatures, strains and strain rates)
2. Fracture analysis of composites materials
3. Contributions to the development of Equations of State for relevant materials
4. Contribution to multi-material tests in HiRadMat2

**Presenter:** PERONI, Lorenzo (Politecnico di Torino)

Contribution ID: 16

Type: **not specified**

## **RHP-Technology: Possible Contributions to Tasks 11.2 and 11.3 and Work Proposals**

*Tuesday 10 December 2013 11:00 (30 minutes)*

1. Presentation of advanced ceramics produced at RHP Technology (WC, MoC, SiC, TiC, ecc) with specific focus on highly conductive materials
2. Proposals for new heavy and conductive refractory materials (e.g. WC- or Mo<sub>2</sub>C- based) as an alternative to present tungsten heavy alloys
3. Proposals for other SiC- based materials and their bonding to metallic substrates
4. Type and number of material samples to be produced.

**Presenter:** Mr NEUBAUER, Eric (RHP Technology)