

**Work package (number / title)**

WP8 - Instrumentation & e-tools

**Work package leader** : Peter Willendrup (PW)

**Venue** : Coimbra

**Date** : September 7th 2016 (WP meeting, Workshop was on September 6th)

**Agenda :**

**9h00** Welcome (Peter Willendrup)

**9h10** News from DTU (Erik Knudsen)

**9h35** News from PSI (Uwe Filges / Emmanouela Rantsiou)

**10:00 – 10h30** *Coffee/ Tea Break*

**10h30** News from NPI (Jan Saroun)

**10h55** September 6<sup>th</sup> workshop summary, tour de table & discussion

**11h30** End of meeting

**List of participants** – please see last page. Photo below is from September 6th workshop. A separate summary / set of minutes from that event will follow.

(evtl **Photo**)



**Collect all power point presentations** and make them available on the intranet (contact [info@sine2020.eu](mailto:info@sine2020.eu))



## Minutes of Meeting

**Detailed** points incl discussion and outcome

### **Agenda :**

#### **9h00** Welcome (Peter Willendrup/PW)

- PW welcomed participants and summarized the scope and goals of the WP – to allow Kristiaan Temst (KT) to follow more closely.

#### **9h10** News from DTU (Erik Knudsen/EBK)

- EBK first gave an introduction to neutronics (e.g. MCNP) and neutron optical Monte Carlo ray-tracing softwares (e.g. McStas, RESTRAX) to explain their differences. He further summarised and evaluated different McStas-MCNP coupling solutions developed at DTU. The talk was a repetition from the September 6<sup>th</sup> workshop.
- EBK further summarised a talk on the MCPL particle list format also given by Thomas Kittelmann (TK), ESS during the September 6<sup>th</sup> workshop. The MCPL software has been developed in collaboration between ESS and DTU.
- The abovementioned DTU tools as well as the MCPL software which have been developed in collaboration between ESS and DTU have been released to the McStas GitHub repository and the MCPL website. Hence, only formal EU reporting is remaining to complete deliverable D8.2

#### **9h35** News from PSI (Uwe Filges/UF and Emmanouela Rantsiou/ER)

- UF gave a presentation about PSI work on high-energy neutron background and related detectors. He reported on the extensive evaluation of detectors that PSI have carried out for deliverable D8.1, only reporting is remaining to complete this deliverable. He further reported on development of the PSI Bonner Sphere spectrometer, which has received new spheres made from Cu and Pb, to allow measurements up to the GeV energy range.
- ER gave a short summary on experimental benchmarks carried out at the BOA beamline, showing important realism achieved in the combined application of McStas and MCNP. The existing experimental data will further be applied for a cross-check of the new MCPL developments. The presented slides were also part of the September 6<sup>th</sup> workshop.

#### **10:00 – 10h30 Coffee/ Tea Break**

#### **10h30** News from NPI (Jan Saroun/JS)

- JS gave a presentation on work carried out at NPI to allow *backward ray-tracing* in McStas, a powerful feature that has been available for a long time in his own RESTRAX code. The presentation showed impressive simulation speed-gains of 2-3 orders of magnitude. Further, JS presented a newly developed semi-transparent, channeled guide element for McStas, which can be used to model the bispectral extraction foreseen for the ESS.

#### **10h55** September 6<sup>th</sup> workshop summary, tour de table & discussion

- All agreed that the workshop on September 6<sup>th</sup> was very useful and clearly indicated where work will be going in the next period.
- Miguel Magán, ESS Bilbao (MM) suggested that he starts formulating relevant test cases for the software.



## Minutes of Meeting

- Participants indicated that collaboration and work is progressing well. No issues to report at this time.
- TU Delft have reported (by email) that they recently hired a Post Doc to begin work on Task 8.3.

**11h30** End of meeting

### Decisions taken

- From September 6th Workshop:
  - We should have a later workshop on ADVANTG and CombLayer codes and challenges for long beamlines.
  - We will arrange code-camps/workshops locally at e.g. ESS, where 2-3 people from 2-3 partners will physically sit together a few days and concentrate on progressing on the softwares.



## Minutes of Meeting

### Tasks / responsables

Task # / Sub task #	Responsible person / entity
Task8.1	PW will ensure all presentations given in workshop and WP meeting are available on the web, including the recorded videos from the workshop.
Task 8.1	MM will starts formulating relevant test cases for the software.
Task 8.1	PW/EBK will start scheduling code-camps, feedback to WP fall 2016.

### Deliverables (due in this period)

Deliverable #	Status
Milestone MS2 achieved	Workshop held on September 6h
D8.1	Work done, UF will write report in September
D8.2	Work done, PW will write report in September

September 6th '16  
7th



"Neutrons Cradle to Grave" /MS2

Participant	Signature
PETER WILKENDRUP	Peter Wilkendorf
Emmanuela Rantsiou	Emmanuela Rantsiou
ZAN SAROUA	Zan Saroua
Uwe Felges	Felges
Miguel Mugón	Miguel
Steven Lilly	Steven Lilly
Stuart Ansell	Stuart Ansell
ERIC B KNUDSEN	Eric BKS
Jakob Garde	Jakob Garde

Also present (no signature):

Kristiaan Temst, KU Leuven (representing advisory committee)

Online (web) participation from (no signature):

Esben Klinkby, DTU/ESS

Phil Bentley, ESS