



## **O<sup>2</sup> Plenary meeting 01 October 2014**

Slides can be found here: <https://indico.cern.ch/event/335388/>

### **1/ O<sup>2</sup> Project status - P. Vande Vyvre**

---

P. Vande Vyvre starts the meeting with the schedule of the Technical Design Report. It becomes urgent to fix the elements in order to keep some consistency in the document. Some pending issues have consequences and delay other parts of the TDR such as chapters 2.4, 5.3.3 etc. A new Editorial Committee will take place from January 20<sup>th</sup> to January 22<sup>nd</sup> 2015. People in charge of the several chapters are listed in slide 5.

He continues with the design, showing in functional requirements (slide 7). Concerning modelling and simulation, the global Grid/Cloud system should be modelled as well as the global system at Point 2. The simulation work made by C. Delort will be taken over by LIPI and TU of Split will work on the Grid modelling.

P. Vande Vyvre gives information about network technologies showing some plots, and about the Intel's announcement made in June 2014 (slides 11 to 13).

He concludes with the online calibration and reconstruction processing schema and reminds that input from ITS, TPC and TRD is needed.

### **2/ Croatia contribution to the O<sup>2</sup> project – S. Gotovac**

---

S. Gotovac presents the FESB research group and the possible contribution they could provide to the O<sup>2</sup> project.

### **3/ Simulation of O<sup>2</sup> offline processing - tools and models – E. Mudnic**

---

E. Mudnic starts with the simulation of the O<sup>2</sup> data processing and details the Online and Offline simulation challenges.

He continues with the simulation tool Omnet++ and the scalability issues of DE simulation models. The tool has already been used in the past and provides a good base for simulation of O<sup>2</sup> data processing. However the most of INET framework modules are for simulating packet network traffic and some negative points are detailed in slide 4.

Slide 5 shows some schemas related to the network and Omnet++ as flow based model.

Slides 6 and 7 detail what is currently known about the Online-Offline simulation, especially the file catalogue and processing node, as well as the data storage models.

FESB can contribute to the incorporation of the flow based network model into Omnet++ and to the creation of simulation modules for Offline data processing. The contribution could be extended.

#### **4/ CWG 6 (Calibration) and CWG 7 (Reconstruction) – R. Shahoyan, C. Zampolli**

---

C. Zampolli presents the report for CWG6 and 7. She reminds people that some information is still missing from the detectors concerning chapter 5 (Calibration) and chapter 7 (Reconstruction), especially from the ITS and TDR concerning the TPC SCD calibration (slide 3).

She details the prototype for calibration and reconstruction for the TRD, ITS and TPC.

TRD plan is to use online tracklets in run3 tracking. To do so, some steps are needed (see slide 4). In addition, there are on-going discussions within the TRD group about manpower.

Slide 5 shows a graph related to the standalone reconstruction for the ITS by CA algorithm. The progress made in the past weeks is significant even if the efficiency still has to be improved at low-pt.

For the TPC, the implementation of SC calibration based on standalone reconstruction is detailed in slides 6 and 7. It should be released by the end of 2014.

Next milestones will be clarified at the TPC upgrade software mini-workshop mid October 2014.

The processing schema of the prototype is displayed on slide 10. It is required to proof its feasibility.

Concerning the long term planning, the TPC offline milestones are physics simulation, reconstruction and calibration (slide 11). The manpower requirements for Run3 R&D are summarized in slide 12.