



CERN openlab IT challenges workshop is paving the way for phase V

On the 10th and 11th of December 2013, the CERN openlab IT Challenges Workshop took place in Thoiry, France, with the objective to define the key IT challenges to be addressed in the coming years in support of the ambitious upgrade schedule of the LHC programme. For the first time in its history, the preparation of the next CERN openlab phase was extended beyond the physics community bringing together more than 40 participants from CERN, the LHC experiments, the Human Brain project¹, inter-governmental scientific research organisations (EMBL-EBI², ESA³, ESRF⁴, ILL⁵), and leading IT industry companies already active in CERN openlab (Intel, Oracle, Rackspace, Siemens and Yandex). The participants shared their views and input to identify use cases to consider during CERN openlab phase V, due to start in 2015. The material presented during the workshop is available online⁶.

After the introductory talk given in the morning by Alberto Di Meglio from the CERN openlab Chief Technology Office, the experts from the industry, the Human Brain Project and the research labs presented in a synthetic way their priorities and roadmap for the upcoming years. The participants of the workshop were then introduced in the afternoon to the six IT challenges identified by CERN: Compute Management and Provisioning, Data Analytics, Data Storage Architectures, Network and Connectivity, Offline Analysis and Simulation, Online Triggers and Data Acquisition. During the ensuing break-out sessions each challenge was explored in-depth to identify potential collaborations and synergies. The parties interested in the challenges actively contributed to elaborate specific use-cases deriving from their future IT needs. In the evening, during the networking cocktail, the participants added further ideas and comments on the posters summarising the results achieved during the break-out sessions. At the start of the second day, the challenge coordinators outlined the possible use-cases, presented their views on the scenarios developed as a result of the previous day's dialogue, and called for feedback and suggestions. Alberto Di Meglio stressed through a "process and timeline" proposal, the crucial importance of planning for the successful and efficient utilization of the various stakeholder's strengths. Building up on these points, Bob Jones, the Head of CERN openlab, focused on a Governance Model proposal for future partnerships, suggesting approaches for the development cycle, possible types of formal agreements and funding schemes. At this stage the interest shown by participants represents a willingness to further develop the use cases rather than a formal commitment to engage in implementation.

The workshop was held under the Chatham House Rule⁷ and a whitepaper summarising the ideas shared and the outcome of the workshop will be presented at the occasion of the next CERN openlab Major Review meeting on 13th February 2014. Once approved by the participants, the whitepaper will be published on the CERN openlab website and will pave the way for negotiating the engagement of the research organisations and companies during 2014.

¹ <https://www.humanbrainproject.eu/>

² <http://www.embl.org/>

³ <http://www.esa.int/>

⁴ <http://www.esrf.eu/>

⁵ <http://www.ill.eu/>

⁶ <http://indico.cern.ch/conferenceDisplay.py?confId=276887>

⁷ <http://www.chathamhouse.org/about-us/chathamhouserule>