

**LSC Scientific Committee
9th Meeting**

**December 1st and 2nd, 2011
Canfranc Estación, Spain**

Summary, Conclusions and Recommendations

DIRECTOR'S REPORT

Dr. Bettini reported on the status of the Underground and Surface LSC facilities, experimental installations and Personnel. He recalled that the Scientific Committee should prepare a report on the future opportunities, perspectives and capabilities of the LSC.

That document was drafted and discussed at the meeting and submitted to the Consejo Rector shortly thereafter.

The Director then presented a complete floor plan of the underground laboratory and gave a layout of where the experiments are being installed, and the status of the installations and preparations for future installations. The CUNA preliminary project was discussed including possible locations, a floor plan, and a conceptual plan for excavation that would minimize interference with Laboratory operations and traffic. The study showed that the excavation would remove 4,500 m³ of rock, cover an area of 1,700 m², cost approximately 2,900,000 € and require about 20 months to accomplish. While the idea for this project was Professor Bettini's, the Committee had encouraged him to make this study and is very satisfied with these encouraging results.

Professor Bettini then gave an overview of the Continuous Convergence Monitor, its layout and a discussion of the installation. Data were presented demonstrating the sensitivity of the concrete to temperature and humidity.

There are 13 personnel positions. The three in the Directorate are filled, two of the three Administrative positions are filled, the position in Safety and Maintenance, two in the Mechanical and Electrical shops, and four of the five Technical positions have been filled. In general, the staff positions appear to have been filled with highly qualified persons. The Director reviewed the progress in all the surface facilities and later gave a brief tour of them.

Professor Bettini then gave an overview of all the rules of the Laboratory to be followed by all of the experiments. These included those for submitting proposals, attending the LSC SC meetings, persons responsible for safety for each experiment and requirements for a Risk Analysis for each experiment. He then reviewed the list of Experiments and one Expression of Interest.

An overview was given of the underground facilities, including the Underground Clean Room, the germanium gamma-ray detectors in Hall-C, including three operating, two that just arrived, two to be purchased in 2012, and two of UZ that are being repaired at Canberra. An extensive discussion was also given of the

sources of background in the laboratory. These included a description of the Air Handling System (relevant to the Radon backgrounds), background gamma-ray measurements as well as muon and neutron flux measurements. Finally, the Director gave a detailed description of the construction and installation of the Argon-Dark-Matter (ArDM) experiment's platform in Hall-A, and a discussion and status of the Geo-Dynamic (GEODYN) system.

This report gave the Committee an excellent understanding of the readiness of the LSC for the installation and operation of the experiments. The progress since the last LSC S meeting is impressive.

The Committee is unanimous in its conclusion that Professor Bettini continues to do an outstanding job in managing the completion of the facilities in both the underground laboratory and external building. The Laboratory Organization and Execution plan is being executed in a timely manner. He has applied strong leadership in accomplishing the stated goals.