



ANDES: current status and perspectives

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ANDES: first steps (since 2010)

- Time evolution of ANDES I.
 - Memorandum of understanding about the construction of the lab.
 - Discussions about the creation of the CLES.
 - Committees ANDES in Argentina, Brazil, Chile, Mexico
 - ANDES office in CLAF.
 - International support of the ANDES project.
 - Evaluation of ANDES in the Ministry of Science of Argentina.
 - Discussions with EBITAN and the formal inclusion of ANDES in the tunnel's complex.



ANDES: first steps

- Time evolution of ANDES II.
 - Discussions with Chilean authorities about ANDES
 - Workshops (Bs.As, Brazil, Mexico, Chile)
 - ANDES in several international conferences and papers about ANDES.
 - First scientific advisory committee.
 - Talks with members of the boards and directors of underground labs.
 - Design and fine details of the construction.

ANDES: urgently needed

- Official recognition by the Agencies/Ministers/Scientific Authorities (each country has its own organization) quite a difficult task in spite of the good will of the authorities, the obstacles are mostly due to bureaucracy
- The agenda of the steering committee: it should be promoted to ANDES first official document as such to help in the identification of ANDES as an established entity, like LNGS, SNO, SUL, etc.
- Discuss and define the structure of the different branches of ANDES organization from the roots, to give ANDES a solid operative basis
- Financial aspects of the construction of ANDES various studies: like environmental impact, fine detail design, etc, need funds



From the drawings to reality: I

- Basic:

- Construction and design of ANDES: technical committee, formal association with EBITAN from the start of the construction of the tunnels.
- Financing ANDES: who is paying and for what, how to channel and supervise the funds, international status of ANDES, diplomatic aspects, waivers and free circulation to and from the lab.
- Time table and accessories (networks, access, lodging, technical support)



From the drawings to reality: II

- Planning
 - Scientific branch
 - Administrative branch
 - Evaluation of ANDES activities, ANDES and the other underground labs.



From the drawings to reality: III

- Physics

- ANDES White paper
- Call for experiments
- Supporting the experiments, overheads.
- R and D in ANDES, detectors and acquisition systems
- Flag experiments



From the drawings to reality: IV

- Other than physics
 - Seismology and geology
 - New materials in low radiation environments.
 - Low radiation biology



From the drawings to reality: V

- Academic

- ANDES institute (modelled after the INT and the ECT).
- ANDES and the local universities (already discussed in San Juan, physics degree oriented towards ANDES).
- ANDES and the other labs: circulation of students, technicians and physicist.
- Programming ANDES workshops, formal contacts with ICTP as a regional partner.



From the drawings to reality: VI

- Social

- Propagate the news about ANDES among the regional governments, among official and private organizations and industries.
- Propagate idem in the media (ANDES news, perhaps, like NUPPEC news, CERN news, etc).

To conclude

- Main road: I
 - build ANDES and develop a structure like the CERN in Latin America.
 - ANDES is a unique opportunity for the region to integrate scientific, academic, economical and political activities.
 - ANDES may host modulus of extended detectors, like Majorana and Super-Nemo, and in due time build its own DBD Experiment.
 - More refined measurements of the neutrino oscillation parameters in ANDES may be planned in view of the space available for large detectors.
 - Dark Matter measurements, like DAMA, in ANDES may confirm the findings of experiments performed in the northern hemisphere. The location of ANDES is very convenient for it.



To conclude

- Main road : II

- The activities around ANDES, both in theory and experiments, will certainly give a great impulse to physics, astrophysics and detector-technology in the region.
- ANDES **should not be** a repository but a generator of new and challenging experiments.

Thanks for your attention (and better start digging in!!)

