Proposal of new Milestones until 2006

1. **30. September 2005 : Definition of T0 building blocks**
   The building blocks, their performance and their interactions are established (disk server, tape server, tape drives and the Castor software). decision on the best way to solve the 'impedance' problem between disk and tape server.

2. **17. November 2005 : IT Mass Storage DC at 750 MB/s to tape**
   Use the building blocks to setup a system to run at 750 MB/s to tape for at least a week, where 750 MB/s means the average over one week with a maximum of 4 periods of a maximum of 12 h (each) where the speed drops below 700 MB/s (minimum 600 MB/s).
   This would use the different available types of tape drives (LTO-3, Titanium, 3592A and 9940B).
   A certain number of IT test programs (~100-150) would fill the disks pools via Castor using RFIO and ROOT and then Castor would migrate the data to tape.

3. **5. December 2005: T0 buffer performance of 500 MB/s**
   Expand this system to the T0 buffer setup. The disk pool would be filled by about 100 streams and in parallel the data would be read by three different client systems (emulation of the T1 export, tape writing via Castor, emulation of reconstruction). This infrastructure should be large enough to cope safely with 500 MB/s (== 500 MB/s in to the pool and 1.5 GB/s out of the pool) and should also run for about one week.

4. **30. January 2006: Tape storage installation from two vendors**
   The two pilot installations form STK and IBM with a capacity of >=5000 slots (each) and 40 tape drives (each) in robotic installations are installed and working.

5. **27. February 2006: 1 GB/s Mass Storage performance**
   Repeat point 2 with 1 GB/s independently for both tape storage installations

6. **19. April 2006: T0 buffer performance of 500 MB/s**
   Repeat the T0 exercise with 1 GB/s

7. **30.April 2006: ALICE DC at 1 GB/s**
   Run the ALICE DC at 1 GB/s in ROOT format and with the ALICE DAQ at Point 2
   Where 1 GB/s is the average over one week measured as the input data rate into the Castor managed disk pool (consistent with the tape data rate). There are at maximum 4 periods of a maximum of 12h where the average data rate is below 1 GB/s and at the minimum of 800 MB/s.

Another set of new milestones concerns the purchasing strategy for CPU and disk resources.
In the current purchasing procedures we would align all tenders with the dates of the finance committee and would aim for two deliveries per year.

→ two major milestones per year
15.February and 15. September 2006,07,08 for the availability (delivered, installed and tested) of new hardware (cpu and disk).

This would be accompanied by minor milestones which would check the different steps which lead to the availability of recourses.

- One market survey per 12 month

- IT discussion about equipment choice
- 2 weeks preparing the tender documents
- 6 weeks tendering process
- 2 weeks sample equipment tests
- 2 weeks synchronization with finance committee meetings in June and November
- 2 weeks internal CERN order processing
- 6 weeks delivery time
- 4 weeks installation and acceptance tests