INFN – Italy

contribution to the Accelerator Design Update (ADU)

INFN is in charge of WP6
Front End and Normal Conducting Linac
WP leader: Santo Gammino – INFN LNS

This sector of the linac consists of
- Ion Source & LEBT (INFN-Laboratori Nazionali del Sud, Italy)
- RFQ (CEA-IRFU, France)
- MEBT (ESS Bilbao, Spain)
- Drift Tube Linac (INFN-Laboratori Nazionali di Legnaro, Italy)

INFN teams from Naples, Turin and Milan (know-how on superconducting elliptical cavities) are involved in WP5

Status of WP6 activities in preparation of the TDR (investments: 1.7 M€, including around 7 FTE)

- Ion source & LEBT
  - Design about to be completed (end of November), in due time for the TDR final version deadline
  - Construction of the source may start immediately, chopper tests are scheduled for 1st half 2013 in LNS and Saclay
- RFQ
  - RFQ design is slightly behind the schedule because of problems in the thermo-mechanical studies, but TDR deadline should be matched.
  - Further steps will be related to the 4 m option, which appears to have additional advantage. Unaffected costing and delivery time.
- MEBT
  - MEBT design is almost ready. Minor mechanical elements are depending on the beam instrumentation choice.
- DTL
  - DTL design is slightly behind the schedule because of problems with manpower availability, TDR deadline should be matched.