NA62 replies following the DT Steering Meeting held on April 30th

(1) What is the relevance of this WP fitting for your experimental program?

WP4:
Although, the timeline of the NA62 experiment is different from the LHC upgrades, we have had an excellent cooperation for radiation hardness tests (mainly measurement on irradiated diodes using IR laser) and consultancy.

WP5:
So far, we have had no contact with WP5 activities.
However, NA62 is developing a novel and ultra light Straw Tracker (0.1% of X0 per layer), which is presently the biggest new gas detector development at CERN. We believe that R&D work on "ultra light gas detector architectures usable in vacuum" would be of interest for a number of present and future experiments.

WP6:
see comments made after ESE steering.

WP7:
no specific comments.

WP11:
NA62 is very interested in the Micro-Channel cooling, which is part of the WP11 program. If the development presently engaged with WP11 is successful, it has a very high chance to be selected as the final choice for the cooling of the NA62 GTK.

(2) Are the deliverables expected by end of 2011 meeting your requirements?
   a. If yes, how many of these deliverables should be available and when and what else are you expecting (production, integration, ...)?

   WP4: We have no agreed deliverables, but we would like to continue the cooperation. Our main interests are:
   - Confirmation of radiation hardness of final detectors (end 2010 or beginning 2011)
   - Understanding of radiation damage influence on the pulse shape (->time resolution). Timeline to be discussed.

   WP11: The main deliverables expected by NA62 are:
   1. A micro channel cooling prototype made of a thin Si-Pyrex assembly using Anodic bonding. The prototype should be able to run at operating conditions,

i.e. mass flow (C6F14) 29kg/h, ΔT<5C, $T_{Det.}$ ≈ 5°C. (Timescale: ≈ Summer 2010)

2. Same prototype with Si-Si assembly. (thickness 2x50 µm + channel depth (50-90 µm)). One of the major issues is the understanding of the Si-Si fusion bonding. Interest to decrease T_{Det} to -20°C. (Timescale: ≈ End 2010)

b. If not, what are the extra developments needed and in which time scale?

(3) Which resources are you able to inject in that particular project either to reach completion of new requirements or to customise or to integrate? With which time scale?
WP4: Rad. hard test and time resolution: several FTE's are working on this from the collaboration.
WP11: NA62 will continue to participates with 2 FTE's in the micro-channel development.

(4) How do you see the long term future (beyond 2011) of this WP ? (e.g. extension, reduction, re-focus, conversion to service, absorption in experiment specific upgrade projects, …).
WP4+ WP11: Our timeline is to built the detector by the end of 2012, so the R&D work should be finished by end 2011.

(5) General comments