

## Addendum to the LCTPC MOA: Status April 2010 of Scenarios Table

The Phase(2) LP and SP tests are expected to take about three-four years and will be followed by Phase(3), the design of the LCTPC. A scenario for Phase(2) options is presented below in Table Scenarios which will be readjusted as we go along. The star \* denotes that a decision must be made as to where, Fermilab, CERN, Desy or elsewhere, this stage should take place. Note that the AIDA proposal which is to follow EUDET has been preliminarily approved whereby the final approval will follow in a few more weeks; it is denoted AidaTBC.

<b>Scenarios Table April 2010</b>
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Large Prototype R&D		
Device	Lab(years)	Configuration
LP1	Desy(2007-2011)	Fieldcage $\oplus$ 2 endplates: GEM+pixel, Micromegas+pixel
<i>Purpose: Test construction techniques using <math>\sim 10000</math> Altro or T2K channels to demonstrate measurement of 6 GeV/c beam momentum over 70cm tracklength, including development of correction procedures.</i>		
LP1.5	Desy(2012)	Fieldcage $\oplus$ thinned endplate: GEM+pixel, Micromegas+pixel
<i>Purpose: Continue tests using 10000 Altro or T2K channels to demonstrate measurement beam momentum over 70cm tracklength using LP1 thinned endplate. If possible, test a jet-like environment.</i>		
LP2	FL*C*D*O/AidaTBC (after 2012)	Fieldcage $\oplus$ advanced-endcap prototype: GEM, Micromegas, or pixel
<i>Purpose: Prototype for LCTPC endcap module design: mechanics, electronics, cooling, power pulsing, gating. Demonstrate measurement of high momentum.</i>		

Small Prototype R&D Possibilities		
Device	Lab(years)	Test
SP1	KEK(2007-2010)	Gas tests, gating configurations, Altro
SP2,SP3	FL*C*D*O(2010-2013)	Performance in jet environment
SPn	LCTPC groups(2007-2013)	Performance, gas tests, dE/dx measurements, continuation of measurements in progress by groups with small prototypes