

# The LDC/ GLD common LOI task force

State of discussions after LCWS2007:

- Decision for common LOI between LDC and GLD has been accepted by the community
- Contact people have been charged to work out the next steps
- Scope of the activities is the common LOI

Since LCWS2007:

decided among contact people on formation of a steering group with 6 members

phone meeting between contact people of LDC and GLD in July

Nomination of the following people to be members of the steering group:

# Steering Board

Task of the steering board:

- Setup a structure which will allow LDC / GLD to efficiently work on a common LOI
- This will entail:
  - Definition of an appropriate number of working groups, needed to make the case
  - Follow the work of the working group and make sure that the relevant questions are worked on with sufficient person power and priority
- Setup a structure to write the LOI (responsible people, editors, etc) once the schedule is known and once the common LDC / GLD detector has been sufficiently well defined

Hitoshi Yamamoto  
Yasuhiro Sugimoto

Ties Behnke  
Henri Videau

Graham Wilson  
Dean Karlen

# Extended Management Group

The structures of LDC and GLD will remain in place for the time being

Decision in LDC will be taken by the "general assembly" + contact people

Decision in GLD will be taken by the Executive Board

LDC - GLD: far reaching decision will be taken by the extended management group:  
proposal for composition:

contact people

executive board members (equivalent for LDC has to be defined)

chair people of the LDC - GLD working groups

# The proposed structure

The steering board has met twice to discuss the setup of the groups:

Propose the formation of three working groups, which should start to operate immediately:

- 1) Detector Optimization
- 2) Detector Integration (MDI, overall engineering, integration)
- 3) Cost

The goal is

Define a common detector model which can then be used as the basis of a common LOI, and as a basis for a large scale simulation and reconstruction effort

# Detector Optimization

Proposal: two person headed effort, but of course much larger group is expected to form

*General Optimization:* We want to design a detector optimized for particle flow, but also doing great on tracking and vertexing: need a much better understanding of the details of particle flow in particular, of dependencies, of algorithms, etc

*Specific Optimization:* We want to arrive at a final detector layout properly optimized for what we want to do (not just <LDC+GLD>). We need to find a (preliminary) optimum between cost and benefits, performance and risk, etc.

# What does LDC contribute?

Generic optimization

we plan to continue our close cooperation with SiD in addition to the one with GLD:  
This should benefit all of us as this will advance our understanding of fundamental problems connected with particle flow

International Working Group on Jet Energy Reconstruction:  
Steve Aplin will take a lead in this

Specific optimization:

Lots of effort in LDC focused around Mark Thomson (PandoraPFA)  
Increasing effort e.g. at DESY (Philip Bechtle)  
Many studies at other places (Pascal Gay, UK groups, etc.)

These ongoing / starting efforts will be the basis of our contribution to the common LDC GLD effort