

The task(s) of our subgroup (April 15 slide)

- **Become a central place where the detector concepts “materialize”**
- **Work in close contact with the other subgroups, DWGs in particular**
 - Agree on the responsibilities, deliverables & realistic timelines
- It is *desirable* that the other WG conveners (or their representatives) attend the meetings of this group on a regular basis (and the Complementarity group - where the conceptual part of the detector models is discussed - too)
- **Participate in working out the input formats & interfaces ...**
- **... as well as in maintaining the detector model “database”**
 - Modular components (support a potential diversity of concepts) ...
 - ... but well-defined *releases* (facilitate the convergence at the end)
 - > **come up with a first “release” NOW; work on the interface details in parallel**
- **Provide the group’s “native” deliverables: the straw man solenoid magnet design & engineering models of the selected setups**

The next steps (yet another April 15 slide)

- **Define the “second option” solenoid requirements**
- **Come up with the first (even if incomplete) detector configuration ...**
- **... and assist the SWG in developing the “database” layout**
- **Try to establish the missing responsibilities, also within the other WGs, and develop a list of expected deliverables and milestones**
 - This apparently requires a well-defined “set of formats”

Topical discussions / reviews?

- **Steered by Integration and Complementarity subgroup conveners**
- **Topics & priorities suggested by the community (examples follow)**
 - > with a focus on Integration WG today; Complementarity WG examples and discussion will follow next week
- **The outline**
 - ▶ Spend a fraction of time at every 12pm Wednesday meeting
 - ▶ Plan this part of the agenda well in advance
 - ▶ Invite experts and responsible people as the main contributors
 - ▶ Assume concise talks + a discussion + a summary (+ a few page memo?)
- **Options**
 - ▶ Routine sub-component progress “reviews”
 - ▶ “Inter-disciplinary” topics (with no single WG responsibility)
 - ▶ Generic topics, which may require a consensus community “decision”
 - ▶ Generic “issues”, which the community better be aware of (Q&A included)

A “3D view” of a particular problem, as seen from several perspectives

Example: sub-component review

- **Silicon trackers:**
 - ▶ Current status of the geometry description
 - ▶ Status of tracking performance modeling
 - ▶ Complementarity options and how they fit a particular IR design
 - ▶ Technology status overview if appropriate
 - ▶ Associated physics studies
 - ▶ Interplay with the other subsystems and/or WGs (ToF, MPGDs, ...)
 - ▶ Timelines till the YR submission
 - ▶ Concrete requests to other WGs (e.g. software)
- **Solenoid modeling progress reports**

Example: topics outside of a single WG scope

- **Electron ID**

- ▶ What is the interplay between tracker and EmCal performance?
- ▶ Detector compositions vs η required to meet the suppression factors
- ▶ Is microscopic modeling needed or fast smearing suffices?
- ▶ Do we have enough technology options for two complementary detectors?

- **Space allocations**

- ▶ How much space do we actually have for a forward RICH?..
- ▶ ... and / or for a forward HCal?
- ▶ How do we balance the space / performance of the two endcaps?
- ▶ What are the possible compromises?..
- ▶ ... also from the Complementarity point of view?

Example: “have you thought about this?” topics

- **Crossing angle:**
 - ▶ Kinematics
 - ▶ High $|\eta|$ acceptance asymmetry of the solenoid field
 - ▶ Fiducial volume cut close to the beam pipe
- **Time of Flight:**
 - ▶ t_0 counter needed?
 - ▶ *Combined* ToF detectors preferred (LGAD tracker, LAPPD mRICH, ...)?
 - ▶ Finite bunch length effects: are they different at $\eta \sim 0$ and for the RPs?
- **Detector projectivity of a 4π collider experiment**
 - ▶ Detector performance (mRICH, ...)
 - ▶ Construction limitations (calorimetry, ...)
 - ▶ Space limitations if “flat” and projective equipment is mixed in the endcaps

The actual topics and *priorities* should better be defined by the community!