Organogram

Physics Working Group

Detector Working Group

Needs to be a strong effort, many members. Also include eRD20 (software) and eRD17 (BeAGLE).

Simulation Team

Two sub-conveners each, one concentrating on the detector technology options & link with detector consortia, the second to make direct links with simulation team & integration groups.

Tracking

Particle Id

Calorimetry (e + h)

Far-forward Detectors (e + h)

Ancillary Detectors

Assign to Polarimetry WG?

One sub-convener each, with strong links to various other teams.

Central Detector Integration

Forward detector/IR Integration

Computing (DAQ and electronics)

Magnet Group

Integration and installation

Start later? Assign to us?

Some further relevant ongoing activities to integrate in these efforts.

IR Working Group

eRD21 Background

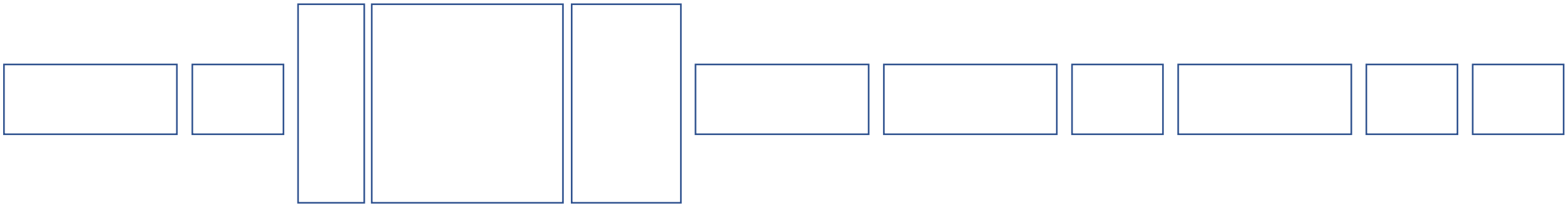
eRD20 Software

eRD23 Streaming

Organizational Structure

- Assume a separate strong simulation team efforts working together with both Physics and Detector WGs
- The organization starts from the references given (science as from EIC white paper for now, known detector requirements, listed introductory documents, and detector-consortia related papers)
- The Central Detector here includes the central detector itself and both electron and proton/ion endcaps
- The Ancillary Detectors here includes both polarimeters and luminosity monitors. We hope the Polarimetry WG is willing to include the luminosity monitor scope.
- We assume two sub-conveners each for tracking detectors, particle identification detectors, calorimetry, and far-forward detectors (including tracking, Roman Pots, ZDCs, etc.). Far-forward is after the final-focus quads.
    - One of these sub-conveners concentrates more on the detector technology options and link with detector consortia, the second sub-convener on coordination with simulation team & integration groups
    - As first task, we would ask each of these groups to first start with listing pros and cons of possible detector technologies, and a general set of parameters associated with each linking to simulations.
- We assume the Integration and Installation activity can start later, and can either assign one sub-convener or first assign this scope to the Detector WG conveners.
- We assume one sub-convener each for various overarching activities: the central detector integration, the forward detector/IR integration, the readout- and computing-related activities, and the magnet field choice.
    - We have indicated several further ongoing activities to integrate in such overarching activities.
    - As first task, we would ask these sub-conveners to list what activities are required over the next 6-12 months, and what questions need to be answered.

Organizational Cartoon/Model of the Extended Detector and IR



far-forward e detection	e final-focus quads	“Central detector”, included e endcap, central, and p/ion endcap detectors	Ion final-focus quads	far-forward h detection	forward dipole	far-forward h detection	forward dipole	far-forward h detection
Low-Q^2 spectroscopy		Inclusive Structure Functions, TMDs, heavy flavors and jets, electrons for GPDs		Baryon decay π/K structure evaporated n		GPDs/DVCS, tagging, diffraction		lowest-t, diffraction
GEMs Diamond detectors?		Vertex and Tracking detectors, particle identification detectors, calorimetry detectors, muon detectors, etc.		GEMs ZDCs e/γ calorim.		GEMs Roman pots e/γ calorim.		Roman pots GEMs?

physics examples

detector examples

Detector WG Sub-conveners

System	Sub-convener
Tracking	1. 2.
Particle Identification	1. 2.
Calorimetry	1. 2.
Far-forward detectors	1. 2.
Ancillary detectors	Polarimetry WG?
Central detector integration	1.
Forward detector/IR integration	1.
Readout and Computing	1.
Magnet(s)	1.
Integration and Installation	NA yet
Simulations (shared with Physics WG)	1. – n.