Suggestions to the DWG Subgroups towards the 2nd EIC YR Workshop

DAQ/Electronics

- Define and consider some different scenarios of trigger-less options
- Evaluate and define implications for front-end electronics of streaming options

Calorimetry

- More actively seek information from and provide information to eRD1 Calorimetry Consortium.
- Similar, with the tracking, particle id, central detector integration/magnet, and software groups.
- Explore solutions for HCAL technologies that can provide <40%/sqrtE as required by large-x physics. Investigate HCAL resolution and granularity needs for forward detection.
- Document granularity studies.
- Communicate any issues with available space in the forward region of the IR/central detector for the EM and hadronic calorimeters.

Tracking

- Evaluate a full silicon tracker next to vertex+gaseous tracker options, including its possible TOF capability
- Define and compare the realistic alternatives for tracking with gaseous detectors in the different regions (barrel, forward)

PID

- Continue work in the direction chosen realizing there is still much to do
- Consider a proximity RICH as alternative to DIRC and TOF for the Central Region (or document why not suitable)
- Evaluate the suitability of different photodetectors

Forward Detectors/IR Integration/Ancillary/Lumi/Polarimeters

- Collect information on Forward and Ancillary Detectors (Lumi/Polarimeters) in a central place
- Follow your plan to combine resources for the vacuum/beam pipe/synchrotron/hadronic background efforts.
- Document the possible issues with the carbon polarimeter in an EIC, and perform an engineering study for central carbon rod direct beam heating, heating by the wake fields, and possible ways to remove heat.

Central Detector/Magnet

- Evaluate the central solenoid magnet options discussed, new 3T or new 2T with sufficient bore. This includes documenting the physics studies and the engineering studies of these options.
- Collect information provided by subgroups in a central place.
- Following up on your suggestion, please fold in documenting the impact of various detectors on performance of others in your integration scope.

Joint Forward Detector/IR Integration and Central Detector/Magnet Integration

- Communicate with accelerator design about shifting the interaction point (by ~0.5m) for maximum space for detectors as space in the forward region is at a premium.
- Update the interactive detector requirements matrix (Yulia, Alexander and Will have been added as people who can also add information).

Complementary Detectors

- As was pre-announced, start meetings with other subgroups to collect ideas for complementarity.
- Communicate with subgroups about each group generating cartoon layouts for different detector options that maximize the complementarity functionality, i.e., work with the tracking, the calorimetry, and the electronics/DAQ groups to make similar cartoons as particle id showed.
- Similar, work with the Central Detector/Magnet and Far-forward Detector/IR integration for magnet and IR variations that could provide complementary science functionality.