

Global Design & Integration (GDI)

Status and Plans

Jin Huang, Richard Milner, Silvia Dalla Torre, Thomas Ullrich

Detector 1 General Meeting

April 29, 2022

Charge (4/26/2022)

[...]

Your working group is fundamentally quite different from the joint detector and physics working groups that have been recently formed, in that we are asking your working group to take a broad view of the EIC project detector as it evolves to a technical design. The global charge to your WG is as follows:

- Work with the project and the joint working group to develop a detailed, integrated technical design of the project detector. This includes the integration of various detector systems, the necessary supports and services, and the requirements imposed by the ability to service the detector between EIC running periods.
- Work with the detector and physics working groups, as well as project management, to ensure that the integrated project detector remains capable of the full science program outlined in the EIC Whitepaper and NAS report. Where compromises need to be made in the integration of the project detector, ensure that the proper simulations studies are completed to ensure they do not unduly compromise the EIC science program.

[...]

Logistics

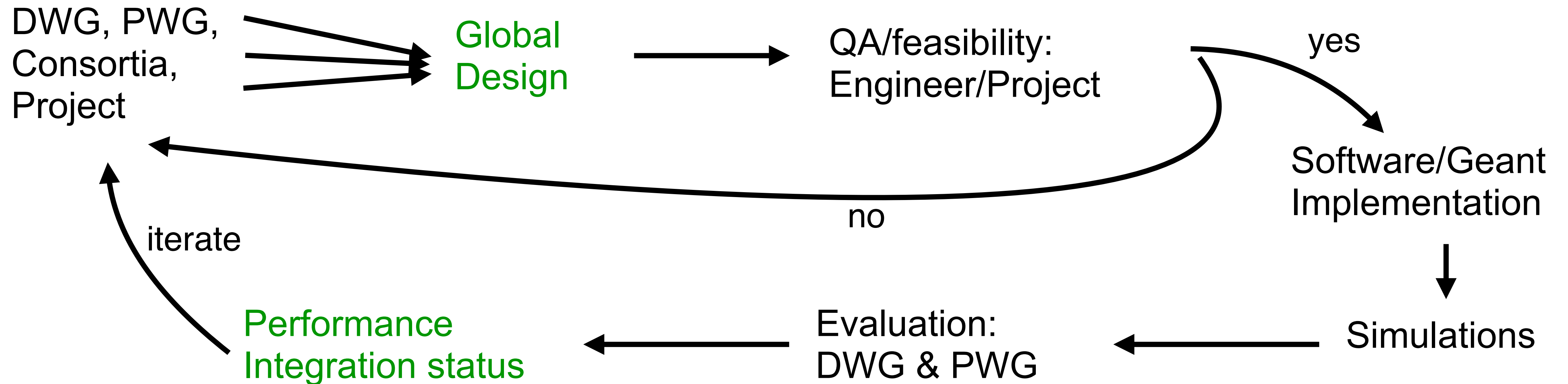
- Indico: <https://indico.bnl.gov/event/15540/>
- Mailing List: eic-projdet-globalint-1@lists.bnl.gov
- Wiki: <https://wiki.bnl.gov/eic-project-detector/index.php/GDI>

- Conveners: Jin Huang (BNL), Richard Milner (MIT), Silvia Dalla Torre (Trieste), Thomas Ullrich (BNL)

- First meeting of GDI conveners yesterday Thursday, April 28
 - ▶ Agenda: Goals, organization, kick-off meeting, weekly meetings, ...
- Kick-Off Meeting planned for 2nd week of May.
 - ▶ Exact date & time soon
- Weekly Meeting
 - ▶ TBD (soon)

Task Ahead Of Us

- Guide the global design and integration of Detector-1
 - ▶ Work closely with DWG, PWG, Consortia, Project, Engineers, Software Group
- Design Cycle:



- Representatives included in GDI meetings: Project (Elke) & SW/Sim
- Try to have at least one GDI convener to be present in every DWG meeting

Remarks

- Need of Input: if you recognize issues concerning the overall design/ infrastructure that affect integration and performance please let us know
- Software
 - ▶ we acknowledge that there might be various timescales in the common effort
 - ▶ we nevertheless urge the working groups, the S&C groups, and project to converge on one unified framework as soon as reasonably possible
 - ⦿ apple to apple comparison, different options evaluated with same software
 - ⦿ no duplication of efforts
- Backgrounds
 - ▶ GDI will start to coordinate joint efforts (machine, DWG, PWG) on background studies (methods, normalization, simulations)
 - ⦿ extremely important for DAQ, detector performance, and systematics control
- We are looking forward to work with all WG, consortia, project, and engineers to get Detector-1 ready for CD-2