

ATHENA WG role and WG conveners' contribution in moving forward

ATHENA WG convener meeting
April 1st, 2022

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INTRODUCTORY CONSIDERATIONS

- The **ATHENA Proposal is great largely thanks to the WGs and their conveners**
 - It is a great scientific proposal. This has been recognized by DPAP:
“ ... the panel finds that ATHENA and ECCE satisfy the requirements to fulfil EIC's "mission need" statement based on the EIC community White Paper and the National Academies of Science (NAS) 2018 report.”
- The DPAP closeout followup meeting by PM and Hosting Labs was **a clear and warm invitation to ATHENA to collaborate in view of Detector 1.**
- **Question to the ATHENA Collaboration EB:** should the ATHENA SP-team represent the collaboration in the new phase in front of us ?
 - Mandate for Spokesperson and Deputy to proceed as proposed.

INTRODUCTORY CONSIDERATIONS, cont.

- From principle declarations (previous slide) to **implementation**
- Not all aspects are clear and obvious
- There have been some opportunities for questions and discussion
 - it clearly emerges that further discussion opportunities are needed
 - we have to dedicated all the needed time to clarify the path in front of us: meeting today is an opportunity to move in this direction

ANALYSIS OF THE MESSAGES @ THE EICUG QUARTERLY MEETING

KEY-WORDS towards COLLABORATIVE EFFORT

- **integrate new collaborators** in a manner that enables them to make contributions that **impact** the capabilities and success of the experiment in significant ways, including **new collaborating individuals and groups into positions of responsibility and leadership**
- **integrate new experimental concepts and technologies**
- **Evolve the reference design** towards the technical design of a global detector based on science
- **Now in the optimization/consolidation phase need to also compare with ATHENA detector solutions**
- **Joint WG process is an opportunity to build collaboration and trust**

ANALYSIS OF THE MESSAGES @ THE EICUG QUARTERLY MEETING

OPERATIVE ELEMENTS RELATED TO WGs

- ***Detailed ECCE detector space*** → Layout ECCE in a CAD program to start on the detailed design of the individual sub-detectors, support structures, front-end electronics and services
- Reach out to **Consortia** and all **ongoing R&D efforts** of interest for Detector-1
- *Establish joint working groups on:*
 - ⦿ *Consolidation and optimization of detector technologies*
 - ⦿ *Define an electronics group and embed it in these joint working group meetings to progress on ASIC and overall readout design/needs*

ANALYSIS OF THE MESSAGES @ THE EICUG QUARTERLY MEETING

CHARGES FOR JOINT WGs *(in blue my comments)*

- ❑ Create joint homogeneous working groups grouping items listed into existing Working Group Structures of ATHENA and ECCE *(list to be provided soon, even if almost obvious in ~all cases)*
- ❑ Reach out to existing Consortia that seem universal (EICSC, EEEMCAL, MPGD, DIRC, DRICH)
- ❑ Each joint WG should hold a kickoff meeting where the designs of each proposal are presented in detail *(at least a meeting, more than one can be needed)*
- ❑ WG conveners lead a discussion to identify any non-trivial differences and/or need of further optimization
- ❑ For each non-trivial difference working groups will then work to prepare a **pro/con list** accounting for **technical performance risk and cost**. Decision on non-trivial differences will then be done in consultation with the project. *(Anticipate some challenges in comparing performance in some cases)*
- ❑ Constant **validation of performances for physics** during the optimization process *(here we need you, PWGs)*
- ❑ Working groups will work closely with the project towards the technical design **taking into account global integration**

ANALYSIS OF THE MESSAGES @ THE EICUG QUARTERLY MEETING

WG Activity in the next 1-4 weeks (next month)

Start the formation of joint Working Groups ASAP, e.g., through kick-off meetings/mini-workshops organized by the joint conveners

- Strive to have first working groups working together by the end of next week / early following week

COMMENT: Some working groups (DAQ/electronics, software) have already started in autonomous way informal joint work

- this is fully fine and certainly productive

WHAT IS MISSING TO START ?

1. The formal **definition of the joint working group LIST**

- ECCE structure similar to ATHENA, but not identical

2. The formal **decision about how many conveners per WG**

- The ECCE and ATHENA conveners should be equal in number

- This means that for ATHENA WG where the number of convener is larger, most likely we should reduce the number and we will ask YOU (namely the present convener teams) to make the choice

- An agreement between ECCE and ATHENA is being elaborated

- We try to progress at maximum speed but, as it is well known, “the devil is in the details”
- Assuming the overall frame is made clear to you today, points 1. and 2. will be communicated via e-mail a.s.a.p.