SKA SWG Update 18 April 2023

SWG Chairs: Adriano Ingallinera, Mark Sargent, Andrei Mesinger, Barbara Catinella, Abhirup Datta, Natasha Hurley-Walker, Eduard Kontar, Sebastien Muller, Phil Edwards, Jan Forbrich, John Ilee, Stefano Camera, Tessa Vernstrom, Phil Edwards, Fernando Camilo, Stijn Buitink

SKAO: Robert Braun, Anna Bonaldi (notes), Philippa Hartley, Wendy Williams, Simon Purser

Apologies: Francoise Combes, Jason Hessels. Patrick Woudt, Anna Nelles, Aris Karastergiou, Cherry Ng, Betsey Adams, Valentina Vacca, Divya Oberoi,

Meeting Recordings

RB: Recording of the SWG chairs meeting was trialled before. We are considering it allow SWG chairs who could not attend to view the meeting. Any objections?
Tessa: in favour
Andrei: in favour

Access and Proposals

RB: Last month we started a presentation on the Proposal planning and access, but we run out of time. We are going to go through those slides again and leave more time for questions and discussion. We also would like to suggest possible topics for future meetings to see what might be of interest. You are also very welcome to suggest other topics.

RB: Access will be proportional to member share while based on scientific merit and technical feasibility. Because we are providing science-ready product, the schedulable resources include the processing necessary to produce a useful product as well as the network bandwidth to ship the data to the SRC network.
Non-members will be capped at the "open time".
Raw data will typically not be available, although there might be some exception at an early stage to check and tune pipelines.

Observatory data products exist at observation level and at project level. The second could be co-add or mosaics and they will also be produced by the observatory. In slide 6 is a list of the data product types.

Proposal types:

KSPs: allocated over multiple observing cycles - several years. leadership team will be only from member countries, Co-Is can be from any country but there might be a limit on how many. They would return added-value data products and tools. regular reviews to track progress. 50-70% of time overall to KSPs.

PI projects: smaller, performed within a cycle

DDT: as usual for time critical cases

Special Proposal Attributes:
Target of Opportunity, which implies a rapid response
Long-term projects, spanning over multiple cycles but requiring limited resources
Joint Mid-Low proposal and Joint-facility proposals (e.g. VLBI)

The KSPs should be extremely compelling. The leadership team should generally be no more than 10 people, and progress will be reviewed periodically. For the proposal, several plans will be necessary in advance including data management and data reduction plans.

The process would first involve a letter of intent, to allow for some coordination with planning workshops that the Observatory will organise. Proposal teams could join forces and commensal observing proposals could be discussed.

We are keen to maximise commensal use. It could take several forms: different projects could share the dame data products, or different products obtained by the same raw data, or the same "time on sky" by means of sub-arrays. Commensal science isn't free, as the telescope time is not the only resource. The highest scientifically ranked project sets the schedule, but projects will the "charged" for all resources utilised.

Open time: of order of 5% initially.

At this stage nothing has been pre-allocated and the SWGs are not proto-KSPs but rather a forum to plan for those proposals.

Proposal review process: Time allocation committee for the scientific review, and a technical review to assess feasibility. Those two aspects will determine the ranking. In determining the allocated schedule, the member share will also be considered.

Questions:

Barbara: Is the SRC network part of the schedulable resources or not?
RB: The extent to which SRCs will be considered an SKAO schedulable resource is still under discussion, but if so, it would only apply to the core functionality to create the ODPs. The governance model for the network needs to be finalised before we can make a more precise statement.
Barbara: What is the logic behind the limit of 10 people for a leadership teams?
RB: It is a soft limit meant as guidance, based on experience with other large projects. However, teams can make their case for a larger leadership group.

Stijn: Cosmic particles will run long projects but use very limited observatory resources. Should we consider ourselves KSPs?
RB: Possibly a better match would be the Long-term project.

Mark: It is not clear to which extent the SRC processing needs to be considered for the allocation.

RB: There is a core functionality provided by the SRCs for producing the OPDs, plus potentially further processing to generate ADPs. Those two need to be considered separately.

Mark: How is the weighting done for commensal projects in the various cases, e.g. using the same data vs using different data from the same time on sky?

RB: For each project, the required resources are assessed, including telescope time, processing, etc. Each component of the resourcing might have multiple "beneficiaries" in which case the access share is distributed over the relevant beneficiaries.

Andrei: At the level of the Italian SKA board, but possibly in other countries, there is some question on to what extent investing in local SRCs would count towards member share.

RB: There is ongoing discussion within the SKAO Council to clarify this. What is relevant is the portion of the SRC that provides the core functionality for producing the Observatory data products. It is conceivable, although still under discussion, that this might count toward access share. Other SRC investment would not count toward access share in any case.

Topics for Future Meetings

RB: Shari provided some suggestions for discussion in this forum. Topics include SRC development, observatory tools, SDP development, sub-arrays and commensality.

Eduard: Very interested in discussing sub-array capabilities. What are the limiting parameters to what we can do?

Wendy: 16 sub-arrays operating simultaneously, but you can configure them as you want. Other limits can come indirectly from the SDP or correlator.

Abhi: Is it 16 subarrays in total between Mid and Low?

RB: No, 16 for each.

Abhi: Is open time reserved for non-members only?

RB: No, it is open to everyone, members and non-members.

Any Other Business

Fernando: Meerkat call for proposal close of date May 3rd.

Natasha: Cosmology and Continuum workshop tomorrow from 8am UTC.