EUROPEAN ORGANISATION FOR ASTRONOMICAL RESEARCH IN THE SOUTHERN HEMISPHERE

FOR APPROVAL

SCIENTIFIC TECHNICAL COMMITTEE

82nd Meeting
ESO, Garching, April 8-9, 2014

DRAFT MINUTES
Draft Minutes of the 82nd meeting of the Scientific Technical Committee held at ESO, Garching on 8 and 9 April, 2014.

The STC convened in the following composition:

Chair: A. Marconi (Italy)

Members: J. Hron (Austria)  
H. Van Winckel (Belgium)  
L. Bronfman (Chile) 
S. Vennes (Czech Republic)  
J. Fynbo (Denmark)  
A. Finoguenov (Finland)  
A.-M. Lagrange (France)  
M. Steinmetz (Germany)  
M. de Vos (The Netherlands)  
A. Moitinho (Portugal)  
A. Alonso-Herrero (Spain)  
S. Feltzing (Sweden)  

Members at Large: E. Sadler (Australia)  
G. Wright (United Kingdom)  
R.L. Akeson (USA)  
J. Monnier (USA)

Excused: M. Perez Diaz (Brazil)  
M. Meyer (Switzerland)  
I. Smail (United Kingdom)

On behalf of the ESO Executive: T. de Zeeuw  
P. Andreani  
D. Baade  
P. Ballester  
J.-P. Berger  
M. Casali  
F. Delplancke  
C. Dumas  
P. Geeraert (Day 1)  
A. Glindemann  
S. Guniat (Day 1)  
N. Hubin  
A. Kaufer  
F. Koch  
R. Ivison  
J. Melnick  
L. Pasquini  
M. Peron  
S. Ramsay  
A. Russell  
A. Smette  
J. Spyromilio

Minutes: G. Tremblay
8 APRIL 2014

1. **Opening of the Meeting and Adoption of the Agenda (STC-530)**
   The Chair, A. Marconi, thanked the former Director for Science, B. Leibundgut, for his great service over many years. The Chair also welcomed the new Director, R. Ivison, and stated that the STC looked forward to a long and fruitful collaboration. He also welcomed the two new members of the STC - Michael Meyer and Ian Smail - who were unable to attend the meeting.

   The agenda (STC-530) was adopted without objection.

2. **Approval of the Minutes of the 81st STC Meeting (STC-529)**
   The draft minutes from the 81st STC meeting were approved without objection.

3. **Report of the Director General**
   The Chair thanked the DIRECTOR GENERAL for his report.

4. **ALMA**

4a. **Programme Status Report (W. Wild)**
   The Chair thanked W. Wild for his report.

   A.-M. Lagrange asked why some JAO staff positions remained unfilled. W. Wild noted that while there was no single answer, it had been difficult to convince highly qualified people to commit to demanding shift work in the desert. Moreover, ALMA required very specific expertise that was relatively rare worldwide, so the overall pool of potential applicants was small. Asked by A.-M. Lagrange’s whether salary scale might play a role, W. Wild noted that, in his view, the salaries were competitive and unlikely to be a root cause for the personnel issue.

   G. Wright enquired whether ALMA officials were at that moment confident that the power production and distribution issues were resolved. W. Wild answered that while no technical system was 100% reliable, the power system had been working continuously and without problems for the past six months and built-in redundancy should enable smooth operations going forward. However, he warned that unforeseen situations (like breaking a cable) could, of course, still arise. He estimated that operations could at that moment be restored within 1-2 hours of a power loss which did not significantly hamper operations.

4b. **Discussion on ALMA fact sheets (STC-531D-ALMA)**
   There were no issues raised regarding the ALMA fact sheets.

4c. **Science Operations (P. Andreani)**
   A.-M. Lagrange enquired why there were so many filler programmes in ALMA Cycle 2. P. Andreani explained that the precise meaning of “filler” was still under discussion. She noted that the primary purpose behind the “filler” category was to ensure that the array was
never idle. As some LST ranges were relatively undersubscribed, many filler programmes were accepted to prevent associated idle time.

J. Fynbo asked whether technical assessment could be made more efficient by reviewing fewer proposals (i.e. after science assessment). He noted that only 5% of proposals were found to be technically infeasible which was a small number given the number of person-hours that went into the assessment. P. Andreani answered that the observatory decided to be as helpful as possible to PIs, helping them to correct potential technical issues prior to science assessment. She noted that this might not be sustainable in future cycles.

4d. **ALMA Development Plan WG Update (L. Testi)**

The Chair thanked L. Testi for his report.

E. Sadler noted that there was tension with regard to ALMA VLBI. She noted that while there was enormous scientific momentum toward supporting it, mm VLBI remained a great technical challenge. She wondered whether the STC might be able to make a recommendation with regard to that tension. L. Testi noted that indeed mm VLBI was a large technical challenge. He noted that on ALMA’s side, the path to reaching 850 micron phasing would eventually be met, even if timelines might be too optimistic.

The DIRECTOR GENERAL noted that mm VLBI had recently been discussed by the ALMA board and that there was support with regard to direct ALMA involvement in VLBI provided it would be available to the community at large and not be restricted to a single experiment.

4e. **Report from ESAC (J. Martin-Pintado)**

A. Marconi thanked J. Martin-Pintado for his report.

E. Sadler asked about ESAC’s recommendation with regard to all proposals being technically assessed instead of waiting for triage. R. Ivison noted that ESAC had to take charge of the issue. He emphasized that workload on referees was enormous, and that there was a two month gap between the initial due date for proposal comments and the panel meeting. He added that during that gap, one could not be expected to remember details for all 120 proposals under review, causing the review process to suffer. The recommendation that technical assessment should not wait for triage gave the reviewer twice as long to review and cut the gap in half.

The DIRECTOR GENERAL noted that some recommendations were not new but that it was good that they were included. He explained that the issue of recruiting a Chief Scientist for JAO was an important one stressed by several committees including the ALMA Board and that the ALMA Director was considering it.

5. **Directorate of Programmes**

5a. **Directorate of Programmes Introduction (A. Russell)**

A. Russell made a short introductory statement about the fact sheet and introduced M. Casali.

5b. **Status of Instrumentation Deliveries (M. Casali)**

The Chair thanked M. Casali for his report.
A.-M. Lagrange asked for more details regarding delay of the coudé structure redesign for ESPRESSO. L. Pasquini answered that a new design was needed because there was a collision found between the coudé and the STS that was only partially foreseen. He noted that that was one of the reasons why the ESPRESSO project was taking more effort than originally thought.

Speaking on behalf of the GRAVITY consortium, A.-M. Lagrange raised a concern about unanswered change requests and questioned whether the level of personnel commitment or activity within ESO was sufficient to complete GRAVITY on schedule. M. Casali responded that indeed the cancellation of PRIMA was done partially to free up resources to devote to the Infrastructure for GRAVITY (and MATISSE). L. Pasquini stressed that the move of PRIMA personnel to the Infrastructure for GRAVITY (and MATISSE) project would still be insufficient. He added that there were design and engineering tasks that might only be accomplished with additional personnel.

J. Hron asked about the current plan/timeline for the return of CRIRES. L. Pasquini answered that in principle the instrument could be ready by mid-2017. The current (unofficial) thinking was that the instrument might move to UT2, as there were no other obvious Nasmyth platforms free for CRIRES in that timeframe. L. Pasquini suggested that FLAMES be retired after the ESO GAIA survey was completed, freeing room for CRIRES. He added that this was still preliminary thought, and that there had to be a formal recommendation.

A.-M. Lagrange asked about lessons learned relative to problems with the Aquarius detector (in the context of VISIR), wondering whether this set new constraints on E-ELT MIR instrumentation. M. Casali stated that ESO’s understanding of the detector was at that moment fairly complete and that the answer was no and that it would not be a problem. He added that the MIR instrument for the E-ELT would have an internal chopper that could operate at very high frequency. F. Kerber outlined that the Aquarius detector was developed for MIRI on JWST, and was therefore designed for low background situations in space, not for ground-based astronomy.

5c. Discussion of Directorate of Programmes Fact Sheets (STC-531B-DOP)
None.

5d. Actions following PRIMA review (A. Russell) (STC-532 [*]/VLT-TRE-ESO-15700-6082
The Chair thanked A. Russell for his report which called for a specific STC recommendation relative to ESO’s expressed wish to cancel PRIMA.

M. Steinmetz asked whether ESO had indeed placed the PRIMA project on hold until GAIA results. A. Russell answered that yes, it was the case and reiterated ESO’s position that PRIMA should be cancelled.

A.-M. Lagrange asked what the updated PRIMA/ ESPRI science case was. J.-P. Berger answered that ESPRI was a blind search for planets using a sample of 30-40 stars. There was also a separate science case that included the characterization of stellar radial velocities.

A.-M. Lagrange noted that she had the impression that part of the problem came from insufficient ICDs and asked for comment on that. A. Russell explained that ultimately, the
complexity of the VLTI system that led to the delays was a systems engineering issue. He added that he was not necessarily sure that it was the ICDs. With 20/20 hindsight, he stated that ESO should have had unambiguous control over the error budget from the beginning. He emphasized that the lack of a PI-level scientist was another serious issue. He was of the opinion that these counted as the two most important “lessons learned” from PRIMA.

A.-M. Lagrange stated that the lesson learned relative to the error budget could be applied to Paranal as a whole. A. Russell agreed adding that it was built into the E-ELT project.

J. Hron asked about the timescale for a second-generation fringe-tracker. A. Russell answered that the current plan was to continue a recently opened investigation into whether or not it might be possible to use GRAVITY as a fringe tracker. If it indeed turned out to be feasible, plans for a second-generation fringe tracker might not be necessary. He added that in any case, NAOMI took precedence over any second-generation fringe tracker plan. He concluded by saying that the prospects for such a second-generation fringe tracker were bimodal. If GRAVITY worked as a fringe tracker, then a separate instrument was unnecessary. If not, he cautioned that plans for a second-generation fringe tracker could only go forward after the commissioning of both GRAVITY and NAOMI.

A. Marconi stated that the star separators would be recycled for GRAVITY and wondered whether their performance would be adequate. J.-P. Berger answered that that would not be a problem.

5e. **VLTI Top Level Science Requirements (J.-P. Berger)**

R. Akeson asked whether PIONIER would ever be opened to the community. J.-P. Berger responded that there were two possible futures for the instrument: (1) to leave it as a visitor instrument with strong support from astronomers at Paranal, or (2) to transition it to a full ESO instrument operated in service mode. He added that there was strong interest in keeping PIONIER during the time of GRAVITY and MATISSE.

E. Sadler wondered whether there were any plans to do aperture masking with the E-ELT. M. Casali explained that that had been discussed informally, though there were no formal plans at that moment. He noted that it might be an interesting possibility for the PCS instrument.

A.-M. Lagrange agreed that improving the VLTI imaging quality would increase community interest. She noted that the same would be true if VLTI data reduction were made more transparent and less difficult. She added that the idea of a “VLTI Node” was very interesting, and asked for further comment. J.-P. Berger outlined that he had discussed this with European VLTI colleagues and had found great interest.

A.-M. Lagrange wondered whether that might be pursued through an EU funding initiative. The DIRECTOR GENERAL noted that before VLTI was a pure-ESO programme, there had been indeed a large discussion with regard to external funding. He added that a more strategic discussion of possible VLTI support centre(s) was probably premature. However, he expressed support for the idea of strengthening community interest in VLTI.


R. Gilmozzi was not able to attend the meeting. Therefore, the agenda item was skipped.
5g. Report from the La Silla Paranal Subpanel (J. Monnier)

E. Sadler commented about filler and bad weather programmes. She noted that Gemini had a bad weather programme (the “Band 3” queue), adding that it was very successful and had enabled a lot of science that might otherwise have been lost in poor conditions. M. Sterzik stressed that indeed ESO’s C class was not a traditional “filler” queue. E. Sadler outlined that the Gemini Band 3 programme was effectively a D class queue that was independent of the others. A. Marconi asked whether ESO could ask C-class programme PIs whether they would like to relax constraints, thereby converting their programme to a “true” filler programme. M. Sterzik answered that this was indeed what ESO was heading for.

5h. Discussion

There was some discussion about the problem of STC recommendations sometimes causing stress on the system. The DIRECTOR GENERAL took it as a positive sign that both the STC and LSP subpanel seemed to be aware that that could happen. A. Marconi noted that indeed, the STC was always worried about what was and was not feasible, even if it was not the official duty of the committee. He explained that the STC had only ever recommended projects after the committee had been told by ESO that it was feasible. He agreed that it was possible that the STC recommendations could sometimes overstress the system.

E. Sadler asked about plans for the two multi-object spectrographs (MOONS and 4MOST). She wondered whether a discussion of these instruments might be better suited after the broader scientific review chaired by R. Ivison had been completed. The DIRECTOR GENERAL agreed.

A. Marconi asked about the root cause for the statistic that 50% of PIs did not ultimately publish their data. He wondered whether that was primarily because people were overloaded with data/ work or whether it was due to the fact that the data were not good to warrant publication. M. Sterzik noted that the A ranked programmes were very complete in terms of observations. However, they still only reached publication rates of 60%.

The DIRECTOR GENERAL noted that all STC members were observers on ESO’s telescopes, and as such, all were urged to publish their papers. He did not know whether the 50% of observing runs that did not produce papers over a long baseline was good, bad or average, as similar analyses for other observatories had not been (publically) completed.

A.-M. Lagrange enquired what “programme” really meant for ESO – was it a run, a proposal, etc? M. Sterzik answered that indeed a programme was the sum of all observing runs in a proposal.

E. Sadler asked about the temporal baseline for that statistic – after how many years it was decided that a programme had not resulted in a publication? M. Sterzik explained that the study was based on the VLT publication statistics over the last 15 years and that the more recent programmes were expected to still lead to publications in the future.

A. Kaufer enquired how many people in the room had VLT data sitting on their hard drives which remained unpublished. Half of the people in the room raised their hands.

6. Directorate for Science
6a. Directorate for Science Overview (R. Ivison)

A. Marconi thanked R. Ivison for his report.
H. Van Winckel was of the opinion that six months was a very short time for such a broad scientific review. R. Ivison stressed that that was what the STC wanted. However, he acknowledged that a six month timescale was not expected to encompass the entire review. He was fully aware of the aggressive timeline but thought that it was feasible. R. Ivison had already had discussions within the Directorate about the review and had received excellent feedback. He believed that it would be a positive exercise for ESO.

6b. **Discussion of Directorate for Science Fact Sheets (STC-531C-DSC)**

H. Van Winckel noted that Monitoring Programmes seemed to take up a very small fraction of the overall programme.

6c. **CTA Science Case (W. Hofmann/ S. Wagner) (STC-533)/ CTA topical issue of Astroparticle Physics**

J.-P. Berger asked whether the technology was a simple extrapolation of what had been done with HESS or whether there were remaining big technical challenges for CTA.

W. Hofmann responded that telescope/ instrument reliability was the largest challenge but that otherwise the CTA was mature in terms of technology readiness level. There was some technical challenge remaining in low cost manufacturing of large secondary mirrors. However, the main question was “will we achieve the near order of magnitude increase in reliability?”

E. Sadler asked about synergy with ESO. There had to be benefit to being in the same location as a large optical observatory. W. Hofmann agreed that indeed there was a huge benefit to being located next to an optical observatory. Often follow-up from an 8 m class telescope like the VLT was not necessary (a 1 m telescope typically sufficed) but sometimes it was necessary to get redshifts for GRB hosts, for example.

E. Sadler enquired what kind of observations were needed to detect the dark matter annihilation signature. W. Hofmann responded that the Galactic Centre was the best place to look for that (or, more specifically, one degree off the Centre, searching for continuum emission which decayed as one moved towards the centre).

J. Monnier asked whether there was an intensity interferometry capability for the CTA that was under discussion. W. Hofmann explained that it was being discussed and that in principle it was feasible. He cautioned, however, that it was not formally part of the CTA baseline plan. It was not necessarily cheap either, as it would probably cost a few extra million euros.

M. Casali asked what sort of instrument was going to be at the focal plane of the CTA telescopes. W. Hofmann answered that the focal plane instrument was a photomultiplier camera (a bundle of 2000 photomultiplier tubes) roughly 2 meters large. All of the electronics were in the focal plane box.

A. Marconi enquired whether a non-detection of dark matter annihilation could imply the non-existence of dark matter. W. Hofmann answered no, a non-detection was not stringent enough to rule out the model.

A. Finoguenov asked how the background could be predicted. W. Hofmann outlined that they had extensive simulations of the atmospheric cascade, ray tracing and electronics
signal chain. These codes were tested with existing instruments and were successful at the 10-20% level.

A. Marconi enquired when the site selection recommendation by the CTA site committee would be made public. W. Hofmann answered that in principle a press release would be issued on Friday, 11 April, if a clear recommendation had been made. Another 1/2 year would be needed to settle details and make a final decision.

The DIRECTOR GENERAL stressed that it was not a discussion of whether there was money in the ESO budget to fund CTA. It was clear that all funding came from external consortium partners. The STC’s charge was to make a recommendation as to whether or not the CTA was scientifically interesting in terms of being hosted at an ESO site.

W. Hofmann expressed his great appreciation for the opportunity to present the CTA science case to the STC. In turn, the STC thanked the representatives of the CTA consortium for their very exciting presentation.

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7. **Directorate of Operations**

7a. **Directorate of Operations Overview (A. Kaufer)**

Questions for A. Kaufer were reserved until he had completed his full presentation including Agenda items 7a., 7b. and 7c.

7b. **Proposals for New Exoplanet Transit Projects (A. Kaufer) (STC-534 [*])**

A.–M. Lagrange asked what NGTS would deliver to the broad community and whether data products were now publically available from the survey. A. Kaufer answered that their deliverable would be calibrated lightcurves for any object brighter than a threshold magnitude within their ten survey fields. Those lightcurves were delivered with a 1% precision for a magnitude 15 star. The community would have access to science-ready, reduced data products through the ESO Archive.

A.-M. Lagrange enquired whether there was no lower-limit restriction on photometric precision. A. Kaufer responded that indeed the best would be delivered which could be achieved. The lightcurve precision would not be degraded to the 1% level if it was intrinsically better than that.

A. Marconi asked whether the locations and sizes of the fields was publically available information. A. Kaufer responded that he would have to check the proposal again to answer with certainty.

R. Akeson enquired whether the infrastructure work to date had indeed been as low-impact as the STC had originally hoped. Furthermore, she noted that neither of the two new proposals specified what data would be delivered to the archive. R. Akeson asked whether ESO needed to expend a lot of effort in these negotiations. A. Kaufer answered that NGTS did not have high priority at the observatory. On ESO’s side, the main work had been a few technical meetings to ensure that the interface with the observatory was properly set up and that infrastructure/ safety standards were met. He acknowledged that yes, it was work on ESO’s side, approximately at the level of 4-5 few hour meetings over a year during the
A. Kaufer added that ESO kept a detailed record of all effort it had expended for NGTS and that everything was being properly charged to NGTS.

A. Marconi expressed a wish to avoid burdening Paranal staff too much, should the STC move forward with a recommendation for that project. He recalled the previous day's discussion about STC recommendations overstressing the programme. A. Kaufer appreciated that statement very much and agreed that it was an important concern. For example, one of the two projects required their instruments to be refilled daily with liquid Nitrogen, which could be a burden on Paranal staff. A. Moitinho asked about other financial resources ESO might have to provide. A. Kaufer answered that all of these facilities were robotic. Therefore, visits to the site should be purely technical. Infrastructure agreements were in place and hours of work on the part of ESO staff were reimbursed. There was an emergency support agreement in place, e.g. if it started to rain and their enclosures did not automatically close, Paranal staff would close them. He reiterated that all such work would be properly charged but that indeed money did not cover everything.

A. Moitinho stated that the NGTS lightcurve deliverables might not be useful to the community adding that the consortium would get the most “juicy” parts of the data.

A. Marconi worried about the snowball effect - at that moment there were two unsolicited proposals under consideration. What if there were more at a later stage? Eight the following year? Did accepting these proposals set a bad precedent and give the impression to the community that ESO was happy to accept unsolicited proposals?

Along those lines S. Feltzing asked that when these proposals went to (e.g.) the ERC for funding, did they already have a letter of support from ESO? Or did they approach funding more generally, before any informal or formal site arrangements had been made? A. Kaufer answered that the consortium only approached ESO when they had the grant ready. He added that they specified preferred sites in their proposal text (Paranal in the proposals under discussion) but that La Silla was always mentioned as possible location. This was because ESO had stated that it had the infrastructure for these projects at La Silla. As for the question as to whether it set a bad precedent, A. Kaufer thought that it was important to consider that these were fixed-timeline projects. He added that in a Paranal environment there had to be an agreement that once a project was over, it was truly over. A. Kaufer stated that there had to be a removal clause in such agreements.

The DIRECTOR GENERAL noted that ESO was in discussion with several others who had cast their eye on La Silla. While he did not believe that the next STC meeting would have another four unsolicited proposals to consider, he did note that the idea of using robots for science was becoming more and more appealing.

A. Marconi wondered whether or not ESO should forbid or set limits to these kinds of unsolicited proposals in order to avoid setting a bad precedent and inviting an ever-increasing number of such proposals in the future. He added that perhaps it was not something the STC should worry about, unless it was related to the community.

A. Kaufer explained that these unsolicited proposals were more or less self-regulated. There was clearly a capacity in the community for small projects. He added that the current unsolicited proposals were very small relative to the scale of ESO. However, he thought that, as a starting point, ESO should at least state that unsolicited proposals could only come from within member states.

H. Van Winckel asked whether in principle all of the projects under consideration could be hosted simultaneously. A. Kaufer stated that both project teams came for a site visit. They
were treated equally. Both projects wanted their infrastructure and materials in exactly the same place. In principle there was space for both, though space was quite limited. He added that while ESO had not spent much time considering space optimization issues, to first order, both should fit.

A. Moitinho enquired whether space would run out as more projects come. A. Kaufer answered that technically ESO had 700 square kilometres. Therefore, it was hard to argue against the perception that they had a lot of space. A. Moitinho noted that while that might be the case in terms of land area, it might not be the case in terms of infrastructure to support it. He was concerned that the two projects under consideration were scientifically very similar.

The DIRECTOR GENERAL noted that the projects under consideration would probably already be accepted had they asked to be placed at La Silla. He added that the argument here was not about policy, it was about a specific scientific argument brought to the STC for feedback. At that moment he did not see a need to write a full policy in terms of unsolicited proposals. If, indeed, the number of future unsolicited proposals suddenly increased, then ESO could look into a policy in the future.

A. Marconi noted that the main reason these proposals looked acceptable was because the infrastructure was already in place. The ExTrA and SPECULOOS projects could be placed without much significant additional infrastructure work done. The initial infrastructure had already been created by NGTS. These strong synergies would also help to prevent a false impression in the community that ESO was suddenly willing to accept unsolicited proposals on a whim.

A. Alonso-Herrero stated that while NGTS might have the funding in place, it might be prudent to conduct an assessment of whether or not their cost forecasts were realistic. She stressed that ESO should not become mired in a project that was only half finished and out of money. A. Kaufer agreed, adding that ESO did not want to be placed in a position of having to rescue a project.

A. Alonso-Herrero cautioned that ESO would have some natural investment in the success of the project simply because the project was taking place on their land. A. Kaufer agreed, noting that ESO paid a great deal of attention to the project’s quality standards. For example, ESO personnel made inspections of the project’s concrete slabs, making sure they were compliant with earthquakes safety standards, etc. He added that, indeed, there was some level of ESO responsibility but that it was kept strictly to the interface level. If the project’s telescopes did not work, were not run well or if their scientific results were not interesting, that could not be ESO’s responsibility.

Note: the discussion on agenda item 7b. occurred after the presentation & discussion (below) on item 7c, as the presentations were given in the opposite order. We leave this section here for consistency with the approved agenda.

7c. **Update on NTT Call for Ideas (A. Kaufer)**

A.-M. Lagrange asked whether there was some a priori idea of the number of selected projects that ESO planned for the second round. A. Kaufer responded that there would be some down-selection but that it would not be too narrow. Only a few would drop out, as these were not in the spirit of what was asked in the Call for Ideas.

S. Feltzing enquired whether it was clear from the proposals what the proposed instruments were generally intended for. For example, were the proposals mostly for surveys? A. Kaufer
answered that the proposals were mostly science focused. Some proposals were designed to become long-term facility instruments with broad potential community interest.

7d. **Discussion of Directorate of Operations Fact Sheets (STC-531A-DOO)**

J. Hron asked about LSP statistics, noting that they were accessible only to the sub-committees and not to the STC as a whole. R. Ivison stated that this was an error and that the entire STC would be given access.

7e. **Discussion**

There was no discussion here as there was previously a long discussion.

8. **E-ELT**

8a. **Status (R. Tamai)**

The Chair thanked R. Tamai for his report. There were no specific questions.

8b. **Report on Science Activities (J. Spyromilio)**

The Chair thanked J. Spyromilio for his report. There were no specific questions.

8c. **Call for E-ELT Instruments (M. Casali)**

The Chair thanked M. Casali for his report.

G. Wright asked about the specifics regarding the GTO agreements between ESO and the consortia building E-ELT first light instruments. M. Casali answered that the first light instrument teams would receive the same GTO time allocation as teams for future instruments.

G. Wright noted that there was an important difference here: The first light instruments carried a lot more risk as the teams were building expensive instruments for a telescope that did not yet exist. Second generation instrument teams had a much easier job, simply because the telescope was built and its performance characterized. M. Casali agreed that there were many subtleties. He added that one could argue that second generation instruments required more work than first light instruments because they were more complicated. M. Casali emphasized that ESO did not enter into negotiations regarding how much effort a certain institution might commit. He agreed that yes, there were many issues to consider but ESO tried to “smooth over the top” by applying the same GTO policies equally for everyone.

J. Fynbo outlined that for small countries like Denmark, it was not possible to lead an E-ELT instrument project. These small countries might nevertheless be interested in participating in a larger project. He asked whether ESO could be precise regarding its requirements for consortium member composition.

M. Casali replied that ESO absolutely did not intend to shut out small countries. He added that ESO simply wanted to avoid contorted work breakdown structures that were driven not by efficiency but rather by a convoluted attempt to patch together a specific consortium.
A. Marconi emphasized that knowing how many GTO nights would be awarded was an important consideration for those who might want to propose a Phase A study. He added that the call would include only a “TBD”, with the specific number of awarded GTO nights left unspecified pending Council decision. Some would need to know what the rough GTO allocation figure was before they proposed.

The DIRECTOR GENERAL stated that that decision had to be approved by Council. He did note that one could do the rough math in one’s head, based on past GTO allocations. The DIRECTOR GENERAL expressed willingness for the call to give a rough estimate for how many GTO nights a consortium could expect.

A. Marconi remarked that if there was a statement along the lines of “GTO will be of the order of X nights over Y years”, then at least teams could have a rough idea of what deal they were going to get. He cautioned that a team would not be happy if it submitted a proposal only to later hear that the number of GTO nights was not what they had expected.

A. Russell pointed out that the teams would know. The Council decision would be after the call, yes, but far before the proposal deadline. ESO would let all proposers know how many GTO nights they would get before they had to submit their proposals.

A. Marconi thought that this sounded fair.

8d. Report from the E-ELT Subpanel (A.-M. Lagrange)

The Chair thanked A.-M. Lagrange for her report.

M. Casali stated that for first-light instruments, ESO was considering making technical specifications a deliverable at some point in the design phase. This was because the interfaces were still under development. The Nasmyth platform architecture was still under design, and it would be difficult to have it finished by October. He pointed out that ESO could not afford all the instruments that would meet all Top Level Requirements. The TLR formed a framework for the key scientific functionality for the instruments. However, with the call for proposals there would be a cost ceiling. The consortium would have to think about costs from day 1.

8e. Discussion

The DIRECTOR GENERAL expressed his gratitude to the ESC for their important set of recommendations. He also expressed concern that there might be an appearance of conflict of interest if, indeed, the ESC had been communicating directly with instrument consortia. He stressed that the ESC had to avoid giving the impression of being a second channel of communication between the consortia, for fear of losing credibility and marginalizing itself in the eyes of both the Council and the community at large. The DIRECTOR GENERAL was worried that levels of conflict of interest appeared to be high and stressed that, above all, it was critical that ESO be the only channel of communication with the consortia.

A. Marconi noted that conflicts of interests had evolved with time since the creation of the ESC and that all potential conflicts of interest could not be apparent until the Phase A teams for HIRES and MOS had been defined.

A.-M. Lagrange stressed that the ESC did not communicate with instrument consortia as if they were speaking as representatives of ESO. She noted, however, that both ESC and STC members were inevitably lobbied by members of consortia and the community at large.
Despite this, she stressed that members of the ESC were nevertheless behaving correctly and within their Council mandate.

A. Marconi noted that while the ESC was at that moment very small, the group would become less obviously conflicted when new members were added, in consultation with the Director for Science.

_The committee adjourned for lunch and closed session at 12:00 pm._