



ESO/UC-80

**Users' Committee**

**37<sup>th</sup> Meeting**

**Garching, April 25 and 26, 2013**

## Draft Minutes

### UC

**Chairperson:** Prof. Scott Trager The Netherlands  
**Vice-chairperson:** Dr. Gary Fuller United Kingdom

**UC members:**

Dr. Stefano Benetti	Italy
Prof. Wolfgang Gieren	Chile
Dr. Emmanuel Jehin	Belgium
Dr. Adéla Kawka	Czech Republic
Prof. Stefan Kimeswenger	Austria
Dr. Hans Kjeldsen	Denmark
Dr. Kirsten Kraiberg Knudsen	Sweden
Dr. Nanda Kumar	Portugal
Dr. Elja Laurikainen	Finland
Dr. Claire Moutou	France
Prof. Thomas Preibisch	Germany
Dr. Hans Martin Schmid	Switzerland
Dr. Lourdes Verdes-Montenegro	Spain

**Invited to Special Session**

Dr. Pierre Kervella	France
Dr. Claudia Paladini	Italy

### On behalf of ESO

Prof. Tim de Zeeuw	ESO Director General
Andreas Kaufer	Directorate of Operations/La Silla Paranal Observatory (DOO/LPO)
Bruno Leibundgut	Directorate for Science (DSC)
Christophe Dumas	Paranal Science Operations (PSO)
Michael Sterzik	Data Management and Operations Division (DMO)
Francesca Primas	User Support Department (USD)
Martino Romaniello	Back-end Operations Department (BOD)
Paola Andreani	ALMA Regional Centre Department (ARC)
Ferdinando Patat	Observing Programme Office (OPO)
Thomas Bierwirth	Data Flow Infrastructure Department (DFI)
Pascal Ballester	Pipeline Systems Department (PSD)

**Invited to Special Session**

Jean-Philippe Berger	VLTI Programme Scientist (DSC)
Antoine Merand	Paranal Science Operations (PSO)
Markus Wittkowski	User Support Department (USD)

**Minutes taken by** Grant Tremblay ESO Fellow

## 1. OPENING OF THE UC MEETING

The Chair, **Prof. Trager (NL)**, opens the 37<sup>th</sup> Users' Committee (UC) meeting.

### 1.1. Adoption of the Agenda

As no suggestions for changes were raised the draft [agenda](#) was adopted.

## 2. UPDATE ON ESO'S PROGRAMME

**Prof. Tim de Zeeuw, Director General of ESO**, presents the highlights and most recent news on the ESO's programme. He reports on the activities related to the celebrations of ESO 50<sup>th</sup> Anniversary, last year in Garching and this year in Chile. He also gives an update on the status of the E-ELT project.

**Dr. Kumar (PT)** asks about the total impact of ESO over time (in terms of publication rates, citations, etc.) and says that it would be desirable to monitor this. Leibundgut (DSC) notes that the ESO's Library already keeps track of total number of publications and citations per year. The **Director General** adds that the ESO's Library actually tracks a wide range of statistics, most of which are publically available. He cautions that citation counts can be misleading due to uneven weighting in the statistics.

**Prof. Trager (NL)** applauds the encouraging progress on the E-ELT, and asks whether ESO foresees a budget shortfall in the coming years even after Brazil has ratified the accession agreement. The **Director General** confirms that the entire ESO programme is currently stressed financially and that indeed ESO will suffer from a foreseen budget shortfall of approximately 20 MEUR due to several long-anticipated factors. These include budget indexation issues that have worsened in recent years due to the current financial crisis throughout Europe.

**Dr. Schmid (CH)** asks about any progress in searching for new ESO Member States. The Director General responds that indeed there has been progress and that he hopes ESO will be able to announce more information in the future.

## 3. REPORT FROM THE OBSERVATORIES: LA SILLA & PARANAL

**Andreas Kaufer (Director of La Silla Paranal Observatory, LPO)** presents an update on the La Silla Paranal Observatory ([attachment 1](#)).

**Prof. Trager (NL)** asks how much additional XSHOOTER downtime might be expected as the ADC problem is addressed during its move from UT2 to UT3. Not much more than what has already been planned, says Kaufer (DOO/LPO).

**Dr. Schmid (CH)** asks how long the NACO refurbishment is expected to take. Kaufer (DOO/LPO) answers that the refurbishment on NACO is already finished, and that he expects the instrument to survive for a few more years, for sure until the arrival of MUSE and hopefully even longer.

**Dr. Moutou (FR)** asks if there might still be room for improvement on the science time available at LSP (currently at 75% of the total time). Kaufer (DOO/LPO) notes that further improvements can only depend on how (efficiently) the 75% available science time (i.e. after deduction of planned technical time and of technical/weather losses) is used. Planned technical time, which is needed to keep the observatory operational, has dropped dramatically over the past several years, with the only exception of VLTI.

## 4. REPORT FROM THE OBSERVATORIES: PARANAL SCIENCE OPERATIONS

**Christophe Dumas (Head of Paranal Science Operations, PSO)** reports on the achievements of his department ([attachment 2](#)).

**Prof. Trager (NL)** says he was pleased to see in the submitted factsheets that Visitor Mode run completion has apparently improved dramatically between P89 and P90. Although some of this improvement is due to better weather

and less technical issues, Dumas (PSO) warns that much of the positive trend is merely stochastic variation, as this statistic varies a lot over time. He cautions that it's not necessarily true that the apparent improvement between P89 and 90 is due to any fundamental change in operation.

**Prof. Fuller (UK)** asks over what timescale LPO reaches 80-90% completion on carry-over programmes. Dumas (PSO) responds that the observatory rarely carries over programmes for more than two periods. **Prof. Fuller (UK)** notes that detailed carry-over statistics would be very interesting.

**Dr. Jehin (BE)** asks about the fact that La Silla no longer has support astronomers, wondering what the feedback from users has been. While some users have expressed confusion on this issue, Kaufer (DOO/LPO) says it has been working well in general.

**Prof. Fuller** asks how frequently Target of Opportunity (ToO) projects are triggered, and how many are running on the telescopes at any given time. Ferdinando Patat (OPO) recalls that, as a rule, ESO does not schedule more than 5% of science time at any one telescope for ToOs. In practice ESO actually schedules 10% of reserved floating time per telescope, but the actual ToO use is always below 5%.

## 5. REPORT FROM OPERATIONS: FRONT-END

**Francesca Primas (Head of User Support Department, USD)** gives an overview of last year's achievements in the front-end of data flow and operations ([attachment 3](#)).

**Prof. Dr. Kimeswenger (AT)** notes that users have complained that SkyCat is based on an old TCL platform, which is no longer ideal for many people. Primas (USD) clarifies that SkyCat is just one tool that users can use to prepare their finding charts, but it is not mandatory. She also adds that while USD is fully aware of the limitations with SkyCat and is already looking into this matter, at the moment there are insufficient resources for it to become a top priority.

**Dr. Moutou (FR)** asks whether there might be any future improvement in flexibility relative to target change requests. Primas (USD) asks for clarification because she is not aware of any limitation. **Dr. Moutou (FR)** responds that the need for a request is itself a limitation. Primas (USD) then remarks that if users want their science to be protected and to avoid being scooped by others, there must be some target change request procedure in place. Removing such a scheme would be a major change to one of ESO's most fundamental policies. Primas (USD) adds that the majority of target change requests are accepted, and that ESO is now working on a new programme change request interface. Dumas (PSO) asks if this concern originates from the community at large, which **Dr. Moutou (FR)** confirms: compared to other observatories where one can easily change his/her science target, ESO's policy appears restrictive at times.

## 6. REPORT FROM OPERATIONS: BACK-END

**Martino Romaniello (Head of Back-end Operations Department, BOD)** reports on last year's achievements in the back-end of data flow and operations ([attachment 4](#)).

**Dr. Knudsen (Sweden)** asks whether data obtained in Max Planck time at APEX is archived, as is the case for ESO and Swedish time. Romaniello (BOD) confirms that Max Planck observations at APEX are indeed archived, but they are not made publically available, as per the original agreement with the Max Planck Institute for Radioastronomy.

**Prof. Dr. Kimeswenger (AT)** asks if the new version of Reflex supports Java 7. Bierwirth (DFI) responds that this should not be a problem.

## 7. REPORT FROM OPERATIONS: ALMA Regional Centre

**Paola Andreani (Head of the ALMA Regional Centre Department, ARC)** reports on the latest ALMA operations developments ([attachment 5](#)).

**Dr. Kjeldsen (DK)** asks about how staffing and management works at ARC nodes. Andreani (ARC) explains that staffing varies from country to country and it depends upon local funding.

**Prof. Trager (NL)** remarks that from the UC poll it looks like that users really want more documentation for novice ALMA users (which probably account for ~60% of the community).

## 8. REPORT FROM THE OBSERVING PROGRAMME OFFICE

**Ferdinando Patat (Head of Observing Programme Office, OPO)** reports on the latest telescope statistics and activities in OPO ([attachment 6](#)).

**Dr. Schmid (CH)** asks if the Calibration Proposal category still exists. Patat (OPO) confirms and adds that ESO receives about two per semester.

**Prof. Trager (NL)** notes that 2/3 of all submitted proposals seem to end up in the C and D category OPC panels, but that only about half of the OPC panel members are assigned to these panels. Patat (OPO) confirms that C and D categories receive about 100 proposals per panel, while A and B panels typically receive only about 60. OPO is looking into this issue. Patat (OPO) also remarks that some users have told ESO that they would rather receive no comments from the OPC than bad/unhelpful comments. **Prof. Trager (NL)** thinks that this may be the opinion of a minority and that many users appreciate the OPC comments very much.

## 9. REPORT FROM THE UC CHAIR

In lieu of a formal report, **Prof. Trager (NL, Chair)** transitioned the meeting to the general discussion.

## 10. GENERAL DISCUSSION

### Reflex

**Prof. Trager (NL)** opens the floor for general discussion, with Reflex as the starting point. He has the feeling that users are only slowly coming to grips with Reflex, both from the point of view of simply installing the system and getting it running, but also from the point of view of actually using it. It seems that major problems with the system are on the installation side, not on the usability side, as many users have complained that while they like the idea of Reflex in principle, they are not able to actually install it.

Romaniello (BOD) acknowledges the difficulties encountered by some users in installing the system on their computers, but also reports on the recently ESO-hosted Reflex workshop, from which very positive feedback was received, especially on the top-to-bottom ease-of-use of the software. The challenge will now be in understanding the data products generated as output of the software and in iterating on them. Data reduction cookbooks can be extremely helpful in this regard and users are most interested in iterating on these recipes to improve the science-readiness of Reflex products.

**Prof. Trager (NL)** asks if these installation issues are specific to Reflex or to ESO's pipeline/computation tools and infrastructure in general.

**Prof. Dr. Kimeswenger (AT)** adds that this is a general problem, not just a Reflex issue. He notes that ESO uses too many unique front-ends in its software development. For example, Reflex is Java based, SkyCat is TCL based, while other tools are Python based. Dr. Kimeswenger recommends ESO to reduce the number of front-ends systems, though acknowledges that TCL is a requirement for the VLT software.

### Observing preparation tools

Sterzik (DMO) asks what the reaction would be if ESO drops the use of SkyCat entirely. **Prof. Trager (NL)** responds that his impression from Primas' presentation is that the majority of the community would not find this a problem. He notes that his colleagues in the Netherlands have long ago dropped the use of SkyCat and have instead adopted scripting Aladin as a more efficient way of producing finding charts. He acknowledges, however, that SkyCat is still useful for some applications. In his opinion, it is important that scripting tools are available to the community for the production of (e.g.) finding charts.

Sterzik (DMO) agrees that there are different and better ways to produce finding charts, but dropping SkyCat would imply that users are "on their own" when it comes to producing them. **Prof. Trager (NL)** suggests that cookbooks on "how to make an ESO-compliant finding chart" could be helpful in this regard. He has heard no feedback from the community suggesting that SkyCat should be preserved.

**Prof. Trager (NL)** acknowledges this but also notes that, e.g., FIMS runs on less than 50% of astronomers' computers in Europe because it requires out-of-date 32-bit Linux machines. Legacy codes can create a lot of hurdles and unnecessary work for people. In the case of FIMS, many people run virtualized Linux installations on their Apple

computers so that they can run these old tools. **Dr. Fuller (UK)** suggests that if this is a requirement nonetheless, a “cookbook” on how to run a virtualized 32-bit Linux installation might be useful.

## Observing Proposals and OPC

**Dr. Kumar (PT)** asks Patat (OPO) about a possible ESO-produced “cookbook” on how to write a good ESO proposal. He thinks that this might help with user complaints related to proposal issues.

Patat (OPO) notes that this is a suggestion to consider, but “guidelines” for writing a good proposal are not very clear-cut. He is not in favor of “A&A style” abstract guidelines, in general not well received by the community. ESO could host workshops on how to write high quality proposals, which may be especially useful for users in countries that tend to have more difficulties in getting telescope time.

Kaufer (DOO/LPO) reminds the UC that the problem is not the lack of well-written proposals, rather the fact that ESO gets too many of these! Patat (OPO) notes that 2/3 of the Principal Investigators (PI) do not get telescope time, regardless of how “good” their proposal is. **Dr. Kumar (PT)** acknowledges this, but suggests that “how to write a successful proposal” can be different from “how to write a good proposal”. **Prof. Trager (NL)** adds that users should be reminded that they are not writing proposals for astronomers who are necessarily experts in their field. He suggests adding this reminder to the Call for Proposals.

Based on comments received from Italian users, **Dr. Benetti (IT)** remarks that often the Panel “expert” on a specific topic needs to leave the room because of very strict conflicts of interest rules. Patat (OPO) responds that OPC panel members themselves declare conflicts of interest and that OPO only regulates institutional conflicts. As OPO does not intervene on the declared conflicts, he does not think that the requirements are overly strict.

**Prof. Trager (NL)** remarks that users can always ask their OPC representative if they have concerns, but Leibundgut (DSC) notes that the OPC no longer has national representation. Users instead can always contact OPO directly. **Prof. Trager (NL)** asks then ESO to remind users about the option to directly contact (e.g.) OPO, Patat or the OPC Chair, should they have issues or concerns that need immediate attention.

**Prof. Dr. Kimeswenger (AT)** wonders if ESO has ever considered a super-committee for a “two step” application process, wherein proposals are refereed first by a super-committee, then returned to the users for revision, after which they re-submit their revised proposals to the OPC for final evaluation. Patat (OPO) appreciates the idea, but he does not see how this could be logistically possible.

**Prof. Kjeldsen (DK)** notes that “guidelines” on how to write a successful proposal will not be useful, because the success rate will not change. The majority of proposals are rejected not because they are *bad*, but because there are/were *better* proposals in the eye of the OPC. In this sense, **Prof. Kjeldsen (DK)** wonders what use OPC comments can serve: if most users find them not useful, then they may not be worth the effort, considering the amount of time that is invested by OPC panel members in writing them.

**Prof. Gieren (CL)** adds that users have long known that they have to write their proposals in a way that a non-expert can understand. He is instead of the opinion that a 6-people-panel is too small to discuss the broad scientific range of proposals. As there are entire scientific fields that go un-represented in the OPC (e.g., compact objects in D panels), some proposals may lack a thorough evaluation by an expert, thus receiving a (unfairly) lower grade. ESO must ensure this doesn’t happen. Patat (OPO) agrees that this is very important. Although OPO always tries to balance expertise, gender and country representation, in many cases it ends up violating the last two requirements in order to satisfy the scientific coverage. He notes, however, that when a panel lacks a specific expertise is mostly due to last minute cancellations.

## 11. CLOSED SESSION

*No meeting minutes are taken for the closed session.*

## 12. TOUR DE TABLE – UC Feedback

The Chair asks the UC representatives to present the most important points from their country-specific users’ polls. Each UC member reports a few examples/issues they have collected, mostly from individual users. Here, we report only on those items that were mentioned by more than just one country.

Overall, the satisfaction with ESO performance and services is high in most countries. The most common users’ feedback and request concerns the capability of using Mac OS to access various ESO tools and pipelines. Some concerns were raised about data reduction pipelines (especially for VLTI data), with some users wishing to have more

flexible modules and others wishing to have more automated pipelines. Some of the recurring topics that have come up in this year UC users' poll include OPC evaluation and comments, HARPS data proprietary time, Service Mode completion rates. One further aspect that was mentioned is about the protection of GTO targets, which in the case of a new instrument like KMOS is field-based. Users think that this is too conservative.

### 13. OLD (UC36) RECOMMENDATIONS

Listed below are last year's UC recommendations and ESO's official replies (in *italic*):

**UC36.R.1:** ESO should implement changes to the Phase 1 proposal preparation process rapidly and should keep the UC informed of these changes. The UC encourages ESO to present the implementation definition and timeline to the UC at their earliest convenience, at least by the UC Mid-Term Telecon.

*The project has been discussed with the software groups and the specifications and a timeline are being finalized. This project suffered from the fact that the OPO resources in January and February were essentially fully occupied with the ISAAC Delta call, which prevented a more detailed discussion of the specifications with the software groups. An update on the status of the project will be given at the UC meeting.*

**UC36.R.2:** ESO should maintain a frequently-asked questions list on reducing data from ESO instruments, linked from both the User Portal and the individual instrument pages.

*We are collecting all of the input we receive from users via [usd-help@eso.org](mailto:usd-help@eso.org), but no resources were available to curate them and systematically put them available in an FAQ form. This is mainly because other activities in the back-end were given higher priority (Phase 3 operations, Catalogue Facility development and operations, X-Shooter science-grade pipeline, follow up of Austrian and UK in-kind contributions on data reduction and data products, design and validation of data reduction systems for upcoming instruments) and because of the very limited use that the community is making of the Science Data Products forum.*

*In addition to one-on-one user support and to pipeline and calibration plan manuals, detailed data reduction tutorials with Reflex are available from the pipeline home page (<http://www.eso.org/pipelines>) for selected instruments (UVES, X-Shooter).*

**UC36.R.3:** The ESO data archive should contain calibrated data where at least instrumental signatures are removed to increase the value of the archive for the ESO users.

*Work In Progress. The highest priority among the activities to fill the ESO Science Archive Facility with data products was given to completing and operating the Phase 3 Infrastructure for Public Surveys in order to meet the corresponding delivery and publication deadlines. Now that these milestones were successfully met (see also the outcome of the Workshop on Surveys and the Public Survey Panel review thereafter), we are working with alacrity on the generation and archive publication of Internal Data Products. We are currently working on data products from UVES-Echelle for which we expect to ingest and publish data via the ESO Science Archive Facility in Q4 2013. In parallel, we are developing a further deployment plan, which at the moment tentatively includes X-Shooter-Echelle, GIRAFFE-MEDUSA and HAWK-I and VIMOS imaging from the UK in-kind contribution.*

**UC36.R.4:** ESO should consider approving the UC minutes formally and release them to the public in as timely a matter as possible, no longer than five to seven months after the annual UC meeting.

*ESO Minutes from last year UC meeting were officially approved at the UC-ESO mid-term telecon and publicly released immediately after. This recommendation was discussed already at the mid-term telecon. It is kept in this report as well, just for completeness.*

**UC35.R.5:** ESO software should be platform independent. ESO should solicit help from the user community for testing on a wide range of platforms and publicly document the results.

*ESO will, whenever possible and appropriate, use software technologies such as java which have been conceived to provide some level of platform independence. However ESO will only test the software on a limited number of predefined platforms.*

**UC35.R.6:** ESO should release the report of the OPC Working Group to the UC.

*The report OPC Working Group was delivered to the Users' Committee immediately after last year UC meeting. This recommendation was already discussed at the mid-term telecon. It is kept in this report as well, just for completeness. . The report was also presented in a Messenger article (Brinks, Leibundgut, Mathys, Messenger 150, 20; <http://www.eso.org/sci/publications/messenger/archive/no.150-dec12/messenger-no150-17-20.pdf>).*

**UC35.R.7:** ESO should not follow the recommendations of the OPC Working Group on yearly La Silla proposal submissions and consortium-driven proposals.

*We followed the UC recommendation and continue to offer ESO telescope time as before.*

**UC35.R.8:** ESO should continue its efforts towards rebalancing the load on individual OPC reviewers to continue the improvement of the OPC process.

*A redistribution of the scientific sub-categories of ESO proposals could not be done due to work required for the ISAAC Delta call. This will have to be taken up after the P92 proposal selection and scheduling.*

*Smaller changes to the process are continuously being implemented. These include the new format of discussions of ongoing Large Programmes. In addition, the OPC meetings have been shortened by half a day by streamlining various processes. This has been welcomed by the OPC. The decreased number of submitted programmes also helps to ease the load on the OPC and panel members slightly.*

*Improvements in the process are a topic at every OPC meeting and ESO attempts to implement these suggestions, when possible*

**UC36.R.9:** ESO should review all applicable rules for Phase 1 and Phase 2 proposal preparation in order to make sure that they are clear, well documented and public. Users should experience no disadvantages in cases when such rules are not properly documented.

*The preparatory work behind the release of the new Call for Proposal for Period 91 has included a thorough review of and homogenization between Phase1 and Phase2 constraints and requirements. Work will continue for further optimizations. Users are rarely penalized for lack of clarity in ESO documentation. Should users complain, the details of these special cases should be brought to the attention of ESO (e.g., Primas, main ESO contact point for UC matters).*

**UC36.R.10:** ESO should continue to make efforts to improve the VLTI observation system in order to further increase observing efficiency.

*ESO has been continuously improving the VLTI observing system. For example, the execution time of an AMBER OB has been reduced from 60 minutes in P78 to 25 minutes in P91 (gain in acquisition) while during the same time the fraction of time available for science operations has increased from 40% to 75% (in particular, significant the reduction of technical downtime), together adding to a 4.5-fold increase in observing efficiency. Furthermore, in Service Mode, the carry-over rate could be reduced to about 10% of the total SM time in P90 and P91.*

*During the last year, ESO has discussed and implemented a number of additional measures to further increase the observing efficiency. The sensitivities of AMBER and MIDI are being improved, allowing to observe the same target under worse seeing conditions (a particular caveat of interferometry), which should make programs easier to complete. In the near future, we will monitor the impact of new VLTI-specific ranking algorithms introduced together with the implementation of P2PP3/OT3 for VLTI.*

*Finally, ESO is exploring options to further increase the scheduling flexibility, which is particularly difficult at VLTI because of:*

*- The large number of Telescopes/Instrument/LST/weather configurations in regard to the small fraction of Service Mode time (currently 10n in P90, 12n in P91 mostly due to PIONIER – a visiting instrument solely operated in VM, taking 50% of the offered science time). Moreover, the poor performances of AMBER/FINITO push PIs to request good conditions (seeing <0.8), but more than what is available on Paranal. This leads to 33% (~4 nights) idle time in SM for both P89 and P90.*

*- The raise of time consuming “imaging proposals” which require frequent reconfigurations (many times a month): each time we move 3ATs, up to 2nights are lost (~24 nights lost on average per period, during P89-P90-P91).*

*Thankfully, the second generation of instruments (GRAVITY and MATISSE) will both use 4 telescopes simultaneously, which will be easier to schedule since there will always be only one possible configuration at a given time. Moreover, they should be more robust to average seeing conditions thanks to NAOMI (AO for the ATs) and the 2GFT (second generation fringe tracker).*

**UC36.R.11:** ESO should implement the process of automatic ingestion of APEX data into the ESO Archive as soon as possible.

*Since July 2012, all ESO (and Swedish) APEX data are now transferred over the network instead of via USB disks. This has reduced the average delay to make new data available to the users from ~1 month to 3.5 days. DMO/BOD is currently working on further streamlining the archive ingestion procedures to reduce this delay to <2 days, which will allow PIs to provide feedback on the ongoing observations. Testing and commissioning of these further enhancements will be performed on the stream of ESO data when it resumes on April 11th. Based on that, the actual current situation will be presented during the UC meeting itself.*

One Action Item was assigned to the Users Committee itself.

**UC36.AI.1:** The UC Chair and STC Chair should have a Telecon to discuss how best to share information between their meetings.

### 13.1. Follow-up Discussion

**Prof. Trager (NL)** thanks ESO for their hard work on the responses to last year's UC recommendations and invites reactions on either side. As there are no immediate responses, **Prof. Trager (NL)** opens the floor by remarking that the UC is very pleased to see ESO continuing to support La Silla. In his opinion, any possible/future decline in the number of La Silla papers should not be confused with a lack of interest in the facility. Rather, it may be connected to a lack of support for this facility. There is a large community still very interested in La Silla and its cost-per-paper is rather low. Moreover, he asks if SciOps 2.0 is ever going to be implemented on La Silla, e.g. if Operations Specialists would be hired for HARPS in the near future, or if Support Astronomers would ever return to the Observatory.

Kaufer (DOO/LPO) replies that we must be careful with interpreting publication statistics in terms of the 2010+ operations mode for La Silla, because three years is not enough time to correctly interpret these numbers. There are very strong constraints on the cost development of La Silla for the next 8-10 years, aiming at more contributions from the community on projects at the NTT and 3.6m telescope. Future plans for La Silla Operations will depend on the science done at these telescopes. With HARPS now planned to run for many years, there is no foreseen need for any additional expert support. If there is some new big instrument, e.g. on the NTT, then ESO may have to re-evaluate the operations scheme to fit the needs of that specific project. Kaufer concludes that mapping SciOps 2.0 to La Silla looks fairly unlikely and that the future of the NTT and 3.6m telescope are under discussion with the STC. Later this year, ESO may release a call for Letters of Interest for future instruments and/or projects at the NTT.

**Dr. Moutou (FR)** asks if it might be possible for TIOs to take care of HARPS observations on the mountain, with remote support from Europe. She notes that this solution might cost less than flying astronomers from Europe to conduct HARPS operations. Kaufer (DOO/LPO) reminds the UC that HARPS must be offered to the community at large, such that a novice is able to get the same support as an expert user. This suggestion would imply that ESO drops this long-held requirement towards its community.

**Prof. Trager (NL)** asks if ESO is considering future support for remote observations. Kaufer (DOO/LPO) says that remote observing is absolutely not cheaper than flying Visiting Astronomers to the observatories. If ESO ever considers remote observing, there must be a clear added value, because the financial incentive is not obvious. The E-ELT may be a good vehicle to focus this discussion and adds that in principle, ESO is always open to discussing new modes of operation.

Sterzik (DMO) asks the UC whether the community at large expects or wants to be able to observe remotely from their home institutes, or specified nodes in Europe, or their personal homes. **Prof. Trager (NL)** takes note that this question should be taken to the community directly.

## 14. CLOSED SESSION

*No meeting minutes are taken for the closed session.*

## 15. SPECIAL TOPIC: "VLTI Operations"

### 15.1. ESO Introduction

**Antoine Merand (PSO), Markus Wittkowski (USD) and Jean-Philippe Berger (DSC)** introduce the special topic by presenting "VLTI Operations at ESO" ([attachment 8](#)) and "The future of VLTI" ([attachment 9](#)), respectively.

## 15.2. Feedback from Expert Users

**Dr. Kervella** ([attachment 10](#)) and **Dr. Paladini** ([attachment 11](#)) present their views and experience with VLTI operations at large, covering all related aspects from Phase 1, Phase 2 to Service vs. Visitor Mode and reducing VLTI data.

## 15.3. General Discussion

**Dr. Kjeldsen (DK)** wonders whether OPC members include some technical evaluation as part of their scientific appraisal of proposals. He notes that past OPC panels have discussed technical details related to how the VLTI works. **Dr. Kervella** replies that the OPC is not asked or supposed to do a technical evaluation. However, he expresses some concern about the lack of interferometric expertise.

Patat (OPO) agrees that this is very important. In the past there have been specialized panels (e.g. for APEX) for this very reason and he adds that it may indeed happen that a panel is left without a VLTI expert. He is also concerned that a non-expert may give only a mild or average grade to a proposal, while only the science case should be looked at.

As a possible way to improve the VLTI observing efficiency, **Dr. Preibisch (DE)** suggests relaxing the requirement to specify at Phase 1 the exact baseline or LST, since the exact AT configuration is not critical for the science case. This is formally possible, Patat (OPO) says, but ESO must first consider all consequences of such policy change.

Merand (PSO) adds that ESO has already looked into this. About 50% of Service Mode OBs can achieve their required *uv* coverage with a number of configurations, within a certain constraint. One possible way of implementing this would be to flag the OBs that are observed with a configuration different from the specified/requested one, until USD verifies that the PI is happy with the science outcome. Wittkowski (USD) adds that PIs can already now indicate if a different AT configuration/baseline or LST range can be used, in the comment field of their OBs. For future instruments, where instantaneous coverage is much improved, ESO could maybe ask only for a specified *uv* coverage and min/max baseline lengths, rather than specific configurations.

**Dr. Paladini** wonders whether intermediate AT configurations can be used for science observations. Merand (PSO) agrees that ESO should look into this. A possible source of inspiration could be IRAM scheduling, says Berger (DSC).

In reply to a question by **Dr. Fuller (UK)**, Merand (PSO) explains that most of the time needed to change configurations actually goes into moving the telescopes. Not much needs to be done inside the laboratory.

**Dr. Fuller (UK)** asks how many more ATs would ESO purchase to increase efficiency, if funds were available. Although adding more ATs might not necessarily increase the efficiency, Berger (DSC) agrees that two more ATs would help, but this would be the maximum number possible (as there are only 6 delay lines available). **Dr. Fuller (UK)** thinks that conducting a cost/benefit analysis for adding two more ATs might be useful exercise.

**Prof. Trager (NL)** notes that the VLTI department is slated to disappear and wonders how this may affect the non-interferometry experts in the community (e.g. whom they will talk with). Berger (DSC) clarifies that this department has mostly been an engineering outfit. ESO has already recognized the need to supervise this area not only in terms of technical aspects but also in terms of data products, work with the community, etc. He does not expect a change in the current interfaces, as they seem to be satisfactory. He notes that ESO would like to evolve towards providing final data products. Sterzik (DMO) reminds the audience that there is now a powerful Phase 3 infrastructure, enabling the ingestion of reduced data into the archive. **Prof. Trager (NL)** adds that Phase 3 is wonderful, but if you don't have reduced data, there can be nothing to put into Phase 3.

**Dr. Knudsen (SE)** asks about workshops and/or summer schools: does ESO intend to support these activities or does it see these under the responsibility of VLTI consortia? Wittkowski (USD) clarifies that ESO has already supported five VLTI schools in the past years, along with an introductory workshop. Indeed, ESO relies on collaboration with the community and provides both support and expert participants whenever the community organizes such event.

**Prof. Trager (NL)** asks if ESO is a member of the OPTICON programme. Berger (DSC) responds that ESO has two members on the OPTICON Board, but it is not in charge of anything. According to Prof. Trager, ESO may be in a position to improve communication between the VLTI community and its close satellites.

**Dr. Moutou (FR)** asks about the current situation with AMBER and MIDI pipelines. Ballester (PSD) clarifies that for MIDI, ESO has a pipeline in place, which roughly compares to what was originally delivered by the Consortium (e.g. end-to-end calibrated visibilities are not currently included). Berger (DSC) adds that, in terms of contracts, ESO gets the pipeline at time of instrument delivery, but then a lot of extra work is invested into further developments, since many

important features are not available or accessible from ESO's side. For future instruments, it will be of uttermost importance that all data reduction steps are properly accounted for in the pipelines. With regards to the AMBER pipeline, **Dr. Kervella** notes that the problem rests partly in the instrument itself, because it is not stable. **Dr. Paladini** suggests that selected consortia members and ESO personnel could hold a panel discussion on pipelines, which would allow the community to listen in on the discussion.

Romaniello (BOD) asks the UC to clarify the meanings of the terms being used. E.g., what exactly is a pipeline? Does the community expect to be able to push one button and receive science-ready data (e.g., a-la HARPS)? This can usually be done for instruments that have no moving parts (HARPS) or for single mode instruments in space (like *HST instruments*) because there is no atmosphere. On the other hand, such a pipeline is not easy to develop for a system like VLTI. According to **Dr. Paladini**, users do not expect (or want) a black box that requires only a single button to be pressed; rather they would appreciate a well-documented set of up-to-date modules.

**Dr. Kervella** disagrees with the statement that it is not possible to develop a pipeline that produces science-ready data for the VLTI, noting that this is already the case for PIONIER. In the case of AMBER, the problem is more related to the stability of the instrument, not something fundamental to VLTI.

Romaniello (BOD) reminds the audience that in view of the limited resources and time available, ESO must receive a clear set of priorities from the community (e.g. if AMBER spectroscopy is an absolute priority). Wittkowski (USD) notes that a prioritized list of action items on data reduction, generated from (e.g.) a user poll, would be very useful.

**Prof. Trager (NL)** asks if the need to insert VLTI targets twice in the Phase 1 template will be addressed by the new re-design of the Phase 1 process. Patat (OPO) confirms that this is in the plan.

**Prof. Trager (NL)** thanks the ESO VLTI staff for their hard work on the system and says to be impressed by the great progress shown over the last year.

## 16. CLOSED SESSION

*No meeting minutes are taken for the closed session.*

## 17. ACTION ITEMS AND RECOMMENDATIONS

**Prof. Trager (NL, Chair)** informs ESO that **Dr. Fuller (UK, Vice Chair)** will be the Chair of the next UC meeting and **Dr. Kjeldsen (DK)** his Vice-Chair.

**Dr. Fuller (UK, new elected Chair)** takes over the meeting and reads the UC recommendations.

### UC37 Recommendations

The UC recommends:

**UC37.R.1:** The UC recommends that ESO software should be platform independent. ESO should solicit help from the user community for testing on a wide range of platforms and publicly document the results. The UC finds this particularly important for Reflex workflows.

**UC37.R.2:** The UC notes and supports the plan to revise the Phase 1 proposal submission process and recommends that ESO consult the users about user requirements for this new process.

**UC37.R.3:** The UC encourages ESO to present the proposed implementation definition for the revised Phase 1 proposal submission process in a timely manner, hopefully by the UC Mid-Term Telecon.

**UC37.R.4:** The UC recommends that ESO should continue its efforts towards rebalancing the load on OPC panels and individual OPC reviewers to continue the improvement of the OPC process.

**UC37.R.5:** The UC recommends that ESO should continue to review all applicable rules for Phase 1 and Phase 2 proposal preparation in order to continue to make sure that they are clear, well documented and public.

**UC37.R.6:** The UC recommends that ESO should maintain a frequently-asked questions list on reducing data from ESO instruments, linked from both the User Portal and the individual instrument pages. ESO should also provide a prominent link to the Science Data Product Forum from the individual instrument pages.

**UC37.R.7:** The UC is encouraged by the new Program Change Request system and recommends that this be

implemented as soon as possible.

**UC37.R.8:** The UC recommends that ESO should further develop the VLTI observation preparation tools to assess the feasibility and requirements for VLTI observations.

**UC37.R.9:** The UC recommends that ESO should provide users with high-quality VLTI data reduction up to averaged calibrated visibilities.

**UC37.R.10:** The UC recommends that ESO should continue to engage the user community in VLTI through data reduction workshops and interferometry schools and other activities.

**UC37.R.11:** The UC recommends that ESO should endeavour to continue to improve the efficiency of VLTI observations, for example to increase the use of Service Mode.

**UC37.R.12:** The UC recommends that ESO should endeavour to maintain broad wavelength coverage in VLTI, for example maintaining MIDI until MATISSE arrives.

**UC37.R.13:** The UC recommends that ESO should consider limiting the blocking of GTO targets or fields to protect specific science questions.

**UC37.R.14:** The UC recommends that ESO should investigate ways to improve the return rate for Visiting Astronomer End-of-Run reports, for example by not allowing the visiting astronomers to leave the facilities without filing a report.

**UC37.R.15:** To minimise the possible inefficient use of APEX by inadvertently repeating existing observations, the UC recommends that ESO should investigate the possibility of allowing ESO users to view which observations have been taken with the APEX facility instruments by all the APEX partners.

At the end of the reading, Sterzik (DMO) and Patat (OPO) comment on UC37.R.2, noting that it is a challenge to poll user requirements in a very broad community-wide effort for the Phase 1 revision process. Instead, they propose a compromise, i.e., a presentation to the UC of a mock-up version of the new Phase 1 process, on which the UC could then provide feedback. **Dr. Fuller (UK)** replies that the UC has realized that the community is broad and that collecting user input might be hard. He confirms that the UC would appreciate seeing a mock-up of the new interface and provide feedback, also in terms of a document summarizing the features the community would like to have, as suggested by Patat. **Dr. Fuller (UK)** adds that the UC could even find a handful of users to test the mock-up version for ESO. Patat promises to get in touch with the UC soon and says that engaging some frequent users would certainly be helpful. He mentions that also ESO Fellows could serve as beta-testers.

### **UC37 Action Items**

The UC will undertake the following tasks:

**UC37.AI.1:** UC places an action on itself to remind users to contact USD Help when issues arise.

**UC37.AI.2:** UC places an action on itself to remind users to post to the Science Data Products Forum when they have questions or comments about data reduction with ESO instrumentation.

**UC37.AI.3:** UC places an action on itself to continue telecons with the STC and OPC chairs.

**UC37.AI.4:** UC places an action on itself to continue to poll its communities on VLTI issues.

## **19. ANY OTHER BUSINESS**

**Francesca Primas (USD)** announces that next year Users' Committee meeting will take place on April 10 and 11 (2014).

## **20. CLOSING REMARKS**

The **Director General** reiterates that ESO's programmes are currently stressed financially and adds that while the UC has provided an excellent list of sensible action items, it has not ranked those action items by priority. He asks the UC for confirmation that ESO can therefore decide which action items it can act upon this year, and which items it must set aside for the time being. He notes that while some of these recommendations can be implemented at a low cost, others cannot. ESO will inform the UC the moment it decides which recommendations must be set aside for later year(s).

The **Director General** then thanks the entire UC for their dedication to ESO and their hard, helpful work. He notes that ESO's interaction with the UC has greatly improved over the past several years and that this improvement is due partly to the dedication and engagement of Scott Trager, its former Chair. He thanks Prof. Trager for his leadership and presents him with a small token of thanks on behalf of ESO.

**Prof. Trager** expresses his appreciation to the entire UC and ESO's audience.

**Dr. Fuller (UK, new Chair)** closes the meeting at 3:00 pm.