Users’ Committee

36th Meeting

Garching, April 23 and 24, 2012
Approved Minutes

UC
Chairperson: Prof. Werner Zeilinger Austria
Vice-chairperson: Prof. Scott Trager The Netherlands

UC members:
- Dr. Stefano Benetti Italy
- Dr. Gary Fuller United Kingdom
- Dr. Martin Groenewegen Belgium
- Dr. Frank Grundahl** Denmark
- Dr. Adéla Kawka Czech Republic
- Dr. Seppo J. Katajainen Finland
- Dr. Nanda Kumar Portugal
- Prof. Thomas Preibisch Germany
- Dr. Claire Moutou France
- Dr. Kirsten Kraiberg Knudsen Sweden
- Dr. Hans Martin Schmid Switzerland
- Dr. Lourdes Verdes-Montenegro Spain
- Prof. Manuela Zoccali Chile

**Excused

On behalf of ESO
- Prof. Tim de Zeeuw ESO Director General
- Andreas Kaufer Directorate of Operations/LPO
- Bruno Leibundgut Directorate for Science
- Michèle Peron Directorate of Engineering/SDD
- Christophe Dumas Paranal Science Operations
- Fernando Comerón Data Management and Operations Division
- Francesca Primas User Support Department
- Martino Romaniello Back-end Operations Department
- Ferdinando Patat Observing Programme Office
- Paola Andreani ALMA Regional Centre Department
- Pascal Ballester Pipeline Systems Department

Invited to Special Session
- Magda Arnaboldi Archive Science Group
- Jörg Retzlaff Archive Science Group

Minutes taken by Loredana Spezzi ESO Fellow
1. OPENING OF THE UC MEETING

The Chair, Prof. Zeilinger (A), opens the 36th UC meeting and asks everyone for a brief introduction.

Introduction of new UC members:

- Dr. Claire Moutou, France
- Dr. Adéla Kawka, Czech Republic
- Dr. Kirsten Kraiberg Knudsen, Sweden

1.1. Adoption of the Agenda

As no suggestions for changes were raised the draft agenda was adopted.

2. APPROVAL OF THE MINUTES OF THE 35th UC MEETING

As no suggestions for changes were raised the minutes of the 35th UC meeting were approved.

3. UPDATE ON ESO’S PROGRAMME

Prof. Tim de Zeeuw, Director General of ESO, presents the latest developments of the ESO’s programme, including the E-ELT project. He highlights that 2012 is ESO 50th anniversary and presents a historical overview of ESO technical and scientific achievements since 1962.

Prof. Trager (NL) asks what the critical points of ESO’s programme for the forthcoming years are and for how long ESO can sustain this programme. The program includes many challenging issues, replies Prof. de Zeeuw, like bringing PRIMA and ALMA to the expected efficiency and getting key-fundings for the E-ELT. However, with the current member states, ESO can sustain this program for at least 15 years.

Dr. Kumar (P) asks whether the E-ELT budget is corrected for inflation. Prof. de Zeeuw explains that budgets are given in 2012 prices; at the end of each year, they are corrected for inflation using a robust schema.

Prof. Zeilinger (A, Chair) asks what the margins are on E-ELT first-light, which according to his knowledge is expected for 2020. Prof. de Zeeuw says that the goal is to achieve first-light before the competitors (i.e., GMT, expected for 2019, and TMT, which is now in an advanced phase with ¼ of the budget secured).

Dr. Gary Fuller (UK) asks whether the ALMA development plan is defined and whether part of this plan is to be executed by the nodes. Prof. de Zeeuw replies that ESO regularly opens calls for studies and proposals and that the development of band 5 is already approved for ALMA. A committee, including members of all ALMA partners, sets the agenda and the development is done in the different ALMA regions. The ESO part of the ALMA development is carried out in various institutes in the Member States.

4. 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).

At the end of the presentation, Prof. Zeilinger (A, Chair) asks what the impact is of the delay of VISTA and VST Public Surveys on Open Time (OT) observations. Kaufer answers that VISTA OT is already being scheduled and that there is no OT plan for VST yet.

Prof. Trager (NL) asks about the VST Atmospheric Dispersion Corrector (ADC) and the progress in reducing the vibrations of UT3 and UT4 during VLTI observations. He also mentions that SINFONI users rarely get the combination good weather/laser working at full power. Kaufer explains that the VST ADC is
not yet commissioned but it is not used by any of the surveys, so it has low-priority. About the vibrations, these are maintained to the level documented by the Interface Control Document (ICD), i.e. ~200 nm at rms level. For the laser, ESO is working on a switch-on/off laser system to replace PARSEC that will allow taking full advantage of good weather conditions in the future.

Dr. Knudsen (S) asks about the development of LABOCA 2. Kaufer answers that the Max Planck Institute for Radioastronomy most likely will not be able to deliver the upgrade of LABOCA. The community will keep using LABOCA if the supply of liquid helium can be provided.

Dr. Moutou (F) asks about the plan for the fast download of La Silla/APEX data to the Archive. Kaufer answers that La Silla data were the first to be fast-downloaded (as of 1st of March 2012) and that APEX data should follow soon.

5. REPORT FROM THE OBSERVATORIES: PARANAL SCIENCE OPERATIONS

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

At the end of the presentation, Dr. Moutou (F) asks whether there is any idle time due to mismatch between weather conditions and OB constraints. This indeed happens, says Dumas, especially on UT3 and UT1. To avoid this, the team is working together with OPO to implement a new strategy, which implies the inclusion of more proposals requiring non-optimal weather conditions.

Prof. Trager (NL) asks whether the problem with the oscillation of the dichroic of X-Shooter, affecting the data reduction, was solved. Dumas replies that there has been no progress on this specific issue, but he will ask the instrument scientist for more details. In fact, it turns out that some tests are currently underway and the oscillations appear to be related to the ADCs in long integrations or/and at given telescope positions with large flexure. Prof. Trager was encouraged by Dumas to contact the X-Shooter Instrument Scientist for additional updates.

Dr. Benetti (I) asks about the near-IR efficiency of X-Shooter and Dumas answers that no major improvement has been achieved since last year other than improving the pipeline reduction in this wavelength range. After consulting the X-Shooter team, Dumas confirmed that the efficiency is optimal in the near-IR and that the availability of K-band blocking filter is also helping in reducing the thermal contamination at J/H bands.

Prof. Zeilinger (A, Chair) asks about the impact for the users of the upgrade operation tools on UT2. Dumas explains that since April 1 UT2 users have to use P2PP version 3 for the preparation of the OBs.

Dr. Moutou (F) asks how often Paranal astronomers are requested to provide remote support to observers in La Silla. Dumas replies that even if it is only ~2 requests/year, one Paranal astronomer usually spends one week on La Silla, every 2 months. During that week, s/he supports all telescopes and takes care of, e.g., technical time, calibration plan, etc. In case of emergencies, Paranal provides real-time support.

6. 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).

During the presentation, Prof. Trager (NL) comments that the first “Phase 2 Users’ Workshop” was announced without much notice and organized in a very busy period for the users (Jan 2012). Primas reminds the committee that the workshop was announced in November 2011, with a first deadline in early December (that was then extended to one week before the workshop). She also adds that a 2nd workshop will be held in Summer 2012.

7. REPORT FROM OPERATIONS: BACK-END
Martino Romaniello (Head of Back-end Operations Department, BOD) gives a report on last year’s achievements in the back-end of data flow and operations (attachment 4).

At the end of the presentation, Prof. Trager (NL) and Dr. Fuller (UK) suggest that ESO should notify via e-mail the PI when each of his/her OBs is executed and appears in the Archive. Primas (USD) comments that this issue has already been discussed in previous meetings and this solution was not deemed very efficient/useful. Dr. Fuller (UK) suggests that at least a summary e-mail per night or per week could be sent to the PI to inform him about the status of his/her OBs.

Dr. Knudsen (S) asks whether the ALMA data will be available on the ESO Archive or on a different portal. Romaniello replies that ALMA data will be available on a different portal, even though the two archives share some of the internals.

Dr. Kumar (P) asks about Reflex and its environment. Romaniello clarifies that Reflex is a front-end interface to the ESO pipelines that allows for plugging-in Python, MIDAS, IRAF or IDL modules.

Prof. Zeilinger (A, Chair) asks whether there will be a Reflex workflow for each instrument or if only the most recent ones will be supported. Romaniello answers that ESO will try to support as many instruments as possible, depending on resources availability; it is unlikely to support all of them. Many 2nd generation instruments have the delivery of Reflex Workflows in their statement of work. In answer to Dr. Katajainen (FIN), Romaniello says that Reflex workflows are currently available only for UVES and X-Shooter.

Dr. Verdes-Montenegro (E) reports that Gasgano recipes cannot be used for different instruments in the same installation. Ballester (PSD, SDD) explains that the installation procedure is meant to install several pipelines in one go. All necessary recipes should be in Gasgano, but he will have a closer look at them.

Dr. Kumar (P) asks whether there is any plan about having an online-pipeline that allows having a complete look at the quality of the data before proceeding with the next exposure. Romaniello answers that there is no plan about this.

Dr. Moutou (F) reports that the 12 months proprietary period is considered too short for complex data sets.

8. 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).

At the end of the presentation, Prof. Zeilinger (A, Chair) asks whether it is a problem that several member states do not have a national node. Andreani replies that countries without nodes are supported by nodes in nearby countries, therefore this is not an issue.

Dr. Verdes-Montenegro (E) makes the remark that the Notice of Intents is due before the capabilities are known. She also asks about the distribution of time allocations to Cycle 0 proposals and whether the recommendation for short proposals will be maintained for Cycle 1. Andreani replies that the capabilities are already available in the Science Portal. She adds that ~800 proposals were accepted for Cycle 0 with an average of 2 hours each. A few hours per proposal will be recommended for Cycle 1 as well, given that the sensitivity is now higher, with 32 antennas available.

Dr. Knudsen (S) asks whether progress has been done to make the observing process more transparent to the PI and whether the deadline for Cycle 1 is fixed to July 12. Andreani replies that starting from Cycle 1 the PIs will be able to track online the status of their projects and the deadline is confirmed for July 12.

9. 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).

At the end of the presentation, Prof. Zeilinger (A, Chair) congratulates OPO for having started the upgrade of the new Phase 1 proposal submission, long awaited by the community. Then he asks whether the end of X-Shooter GTO (last call in Period 91) reduces the oversubscription on UT2 or whether there is any other plan (i.e., instrument relocation) to reduce it. Patat answers that the current pressure on UT2 comes mainly from X-Shooter normal programmes, 4 on-going Large Programmes and the on-going Public Spectroscopic Survey on FLAMES; hence, the oversubscription will not decrease significantly with the end of X-Shooter GTO programs. Kaufer (DOO, LPO) adds that at the moment there is no plan about swapping instruments, because the impact of new generation instruments (like SPHERE) cannot be predicted yet.

Dr. Kumar (P) suggests that, in order to reduce the pressure on some telescopes, the OPC should encourage the use of survey data already available in the Archive. Patat comments that the unique capabilities of X-Shooter (wavelength coverage and resolution) cannot be achieved with other instruments; however, the OPC does discourage the use of X-Shooter for studies that do not fully exploit its capabilities (e.g., single line observations).

Dr. Verdes-Montenegro (E) offers that the UC could provide a list of users willing to serve on the OPC. Patat appreciates the offer, as this would facilitate the OPC recruitment process.

10. REPORT ON THE OPC WORKING GROUP

Bruno Leibundgut (Director for Science, DSC) presents the report of the OPC Working Group, highlighting its final recommendations (attachment 7).

Questions are postponed to the General Discussion session.

11. GENERAL DISCUSSION

Prof. Zeilinger (A, Chair) proposes to postpone the general discussion to the Tour de Table session.

12. CLOSED SESSION

13. TOUR DE TABLE – UC Feedback

Prof. Zeilinger (A, Chair) opens the session acknowledging the significant progress made since last year UC meeting and asks Leibundgut (DSC) to make the OPC Working Group report available to them. Leibundgut (DSC) promises to discuss the request with the Chair of the Working Group.

Prof. Zeilinger (A, Chair) then makes a short report on the results of the annual UC Users’ Poll. Thanks to Prof. Trager (NL), a new platform was made available this year and 425 responses were collected. The user community is in general satisfied with the services provided by ESO, with the most frequent complaints/concerns being the following:

- High over-subscription of UT2.
- Several small problems during the Phase 1 proposal submission (e.g., size limits for the figures and long list which do not appear in the documentation), quality of the OPC feedback (comments are found to be too short, general and stereotypical), lack of clear OPC directions on how to improve the proposal(s).
- Transportation to and from La Silla not very flexible, overriding procedures not well explained.
- Low completion rates of class-A and B Service Mode programmes and no explanations provided by ESO to PIs.
- Users seem to prefer the old HTML data distribution structure.
- Users wish to have platform-independent ESO software and, in particular, find that the Mac operating system should be better supported.

Prof. de Zeeuw asks what the percentage of users behind each of the issues is, because ESO needs to set
priorities, as the budget available for changes/improvements is limited. Prof. Zeilinger (A, Chair) clarifies that these represent the most recurrent points raised by the users’ community.

Prof. Trager (NL) reports to have received feedback from 12 Dutch astronomers, with a good fraction of NACO users but no ALMA Cycle 0 PI (his list did not have any). The Dutch community, generally satisfied with ESO services, stresses that the Mac operating system is now the most used in Dutch institutes and wishes ESO to support this platform. A couple of users reported mistakes in the definition of the calibration plan for specific instruments (e.g., X-Shooter).

Dr. Knudsen’s (S) report collects the feedback from 6 PIs. The Swedish users consider excellent the work that ESO has done with data archiving, reduction procedures and pipelines. They are concerned about the paucity of blue observations with FORS2 and hope that the FORS2 blue CCD can be offered also in Service Mode. Finally, they point out the need for platform-independent ESO software.

Dr. Kumar (P) reports on the responses received from 13 users, including 2 ALMA users. He quotes only the statements supported by more than 50% of this pool. The Portuguese users are satisfied with ESO proposal package, pipelines and data reduction. Some of them report problems in uploading finding charts for specific platforms. The users of the 2.2m telescope report some conflict with GROND; they suggest to reduce GROND time if weather conditions significantly compromise the observing time at the 2.2m telescope.

Prof. Zoccali (CL) reports on the responses of 23 ESO frequent users. In general, they are satisfied, but they also point out the need for supporting ESO software on Mac-platforms. Many of them report difficulties in the pipeline installation and need more support, especially now that ESO is discontinuing the delivery of reduced data.

Prof. Preibisch (D) reports on the responses received from 39 users. They are generally satisfied with ESO services. Their major concern is that only ~37% of A-class programs are completed, with the remaining ones being only partly executed or not executed at all. This makes the scientific planning very difficult and, to solve this issue, they propose to reduce the number of B-ranked accepted proposals. Moreover, MIDI users are concerned by the rumours that MIDI will be removed before MATISSE arrives and wish to have more information about this.

Dr. Verdes-Montenegro (E) reports on the responses of 63 users, including 21 users involved in ALMA proposals. They list a number of suggestions to improve the work of the OPC (keep the proposal anonymous during the referee/ranking phase, make the OPC records public, include in the OPC report suggestions on how to improve the proposal). They propose to centralize the information about the proposal submission phase. They also mention that many prescriptions given in the EFOSC User Manual do not actually work. They hope for an improvement of the ESO pipeline (data reduction still constitutes a major time investment), for a more intuitive structure of the ESO User Portal and for Mac-supported ESO software. Finally, ALMA users rate higher resolution and sensitivity the top priorities of future ALMA capabilities.

Dr. Groenewegen (BE) reports on the responses of only 5 Belgian users. All of them are willing to serve on ESO and ALMA panels.

Dr. Fuller (UK) reports on the responses of 59 users. This community raised three main points: 1) Many A-ranked programmes are not completed or not executed; the criteria used to decide which program is completed must be clarified to the community. 2) The calibration plan of some instruments (e.g., X-Shooter) is inadequate; ESO should take the feedback from the users into account to quickly implement a new plan. 3) They suggest that Target of Opportunity projects are not bound to one semester.

Dr. Schmid (CH) reports on the responses of 8 users. The feedback is generally very positive. The only two points of concern are the non-execution of A-ranked programmes and the quality of the OPC reports (too short and the overall referee/ranking process appears stochastic).

Dr. Moutou (F) reports on the responses of 59 users. The feedback is generally very positive, but it includes a number of concerns. The OPC referee process appears very conservative, preventing new break-through
science at VLT, and the OPC appears to lack expertise in stellar interferometry. Users also express concerns about operations (the idle time at the UTs is very high, especially when considering the pressure on these telescopes) and the need to optimize the schedule for VLTI configurations. Only 30% of the users make use of ESO pipelines data and, to speed up the publication process, they propose that ESO provides science-graded data to the PIs. They also ask for an update on the possibility to make remote observations from Garching. Finally, ALMA users wish to have a quick assessment of the quality of their Cycle 0 data.

Dr. Katajainen (FIN) reports on the responses of 14 users. The number of ESO users in Finland is increasing but the majority of astronomers still do not apply for time on ESO telescopes. Regular ESO users are generally satisfied. They have some concerns about the OPC reports (too short and generic) and most of them do not trust ESO pipeline products and use their own reduction scripts. Finally, they also wish to have platform-independent ESO software.

Dr. Kawka (CZ) reports on the responses of 9 users. She points out that ESO users’ community in Czech Republic is growing and it is in general very satisfied with ESO services. They express some concern about the OPC reports, considered very general and sometimes irrelevant. One has also proposed to apply a “minimum quota” when assigning observing time to ESO member states.

Dr. Benetti (I) reports on the responses of 67 users. The Italian community is generally satisfied with ESO services. He reports on the following recurring issues not covered by the UC User’ Poll: users traveling to Chile for large GTO programs find the guidelines unclear; the downgrade of La Silla is significantly reducing the capacity the European community has to observe at 4m-class telescopes; users are disappointed by the fact that the Schmidt telescope was sold to a non-European community. Finally, they suggest that the 12 months proprietary period starts when the observing program is completed.

Prof. Zeilinger (A, Chair) closes this series of reports, pointing out that the Austrian community of ESO users is not changing very much over the years. A total of 10 users filled out the poll and highlighted two main aspects: OPC reports are still found un-satisfactory; only 40% of the community makes use of ESO pipelines, but they often experience problems with their installation and would like to see documentation improved.

13.1. Follow-up Discussion

Kaufer (DOO, LPO) starts by clarifying a few operational issues mentioned in the section above.

Removal of MIDI: MIDI may not be available as of Period 92. ESO will thus not accept Large Programmes because it cannot guarantee a long-term commitment. However, it will not be decommissioned before the arrival of new facilities.

2.2m telescope: There is a 15% over-scheduling of the 2.2m telescope to compensate for GROND triggers since the beginning. ESO is already discussing with Max Planck the possibility of reducing GROND time depending on weather conditions. ESO is also trying to find out whether the GROND community respects the agreement, i.e. if GROND time is used only for Target of Opportunity and your feedback is very important to establish this.

Schmidt telescope: The Schmidt telescope was not used for about 10 years and it was sold for a time-limited project to a US/French consortium, hence also to an European partner. All countries had their chance but this was the only proposal received by ESO.

Idle time: The typical idle time over the past years is of the order of a few percent at specific telescopes. The small amount of idle time is comparable to losses due to execution or preparation errors by the operators and users. Idle time can often be explained by an unfortunate combination of scheduling, weather, and instrumental constraint factors. Sometimes idle time is generated due to the unavailability of a specific instrument due to short-noticed changes in its technical schedule, a recent example being the unavailability of VISIR on UT3 due to the postponed instrument upgrade. The large idle time for VLTI is not surprising given the difficulties in matching the configuration with sky conditions.
Travel rules: Primas (USD) thinks that the travel rules are clear and quite flexible in accommodating family/holiday issues, especially for La Silla. She underlines that a few unfortunate cases arose for some X-Shooter GTO observers but this was mainly due to inefficient communication channels within the Consortium.

Statistics of completed observing programs: the official ESO statistics presented by Primas (USD) show that on average 60-80% of A-class programs are completed, ~10% are terminated and ~5% are not started. The reasons for these ‘non-executions’ are now being investigated. However, it is clear that several proposals have too strict constraints and should not be accepted in the first place. ESO will anyway try to push even harder for the execution of A-class programs; this will inevitably reduce the number of B-/C-class executed programs. Dr. Fuller (UK) asks who/how decides which program shall be executed. Dumas (PSO) and Kaufer (DOO, LPO) clarify that the astronomer on duty decides which OB shall be executed in real time, depending on the ambient conditions. However, a more sophisticated ranking algorithm is part of the deployment of P2PP3/OT3 tools and it is now being tested at UT2.

Platform independent ESO-software: Ballester (PSD) comments that this is basically an issue of resources. Mac and Linux are equally used in ESO member states. To support both platforms, ESO needs to duplicate the budget, especially for the testing part and this is not currently possible. Linux has been chosen because it is a free-software, hence easily available to everyone. Prof. Zeilinger (A, Chair) points out that users cannot freely choose the platform, because in most cases this choice is made at the institute level.

Pipeline installation: Peron (DOE, SDD) comments that the same financial/resources argument applies to the installation of pipelines. ESO pipelines are currently not platform-independent, although they work on several platforms. However, ESO cannot guarantee support for installing them on different platforms. The Users’ Committee should provide a list of high priority applications to be supported. Prof. Trager (NL) suggests distributing the pipelines testing on different platforms to the users’ community. Peron confirms that this had already been exploited for MIDAS and it worked very well. Primas (USD) suggests that maybe one could start from uploading individual users’ feedback on the Data Reduction Forum. In this respect, Prof. Zoccali (CL) mentions that one Chilean user suggested to start sharing this type of information via a Facebook group, which could be more motivating for the younger astronomers. Prof. Trager (NL) confirms that there are already Facebook pages created by users to exchange information on specific ESO instruments (e.g., X-Shooter). Dr. Kumar (P) notes however that many users do not make regular use of social networks and thinks that pipeline information should be linked to the ESO/instruments webpages. Comerón (DMO) adds that the proliferation of forums providing information that cannot be checked should be discouraged; ESO is open to user suggestions, but probably the way to go is to open a specific forum (e.g., “Users Tools”) in the ESO portal.

14. OLD (UC35) RECOMMENDATIONS

Last year UС recommendations and ESO official replies (in italic):

UC35.R.1: ESO should develop a mechanism through which restricted access of collaborators to specific runs can be delegated, following authorization by the PI.

The requested mechanism, understood by ESO to represent Phase 2 delegation, has been developed as part of the larger effort of developing the next generation of observation tools, including P2PP Version 3. These tools have been introduced as of Period 89 on a single UT (UT2), since they encompass a large change in the operational paradigm at the Observatory (e.g. the introduction of scheduling containers). However, in the interest of (a) decreasing the complexity involved in the rollout of these new tools and (b) being fair to users of other Paranal telescopes, it was decided to not offer Phase 2 delegation at the outset. The Phase 2 delegation mechanism will be introduced at the time that the use of these new tools is extended to the remaining UTs and VLTI. This depends on the experience gained at UT2, but is nominally scheduled for Period 91. It should be noted that the deployment of Phase 2 delegation to VLTI may be slightly delayed from this schedule, owing to increased complexities inherent in that facet of operations.

UC35.R.2: ESO should discuss plans how to change the current LaTeX based Phase 1 forms into a more user-friendly tool.
The Observing Programmes Office has prepared a plan for the re-haul of the Phase 1 system, which is being examined by ESO. Patat (OPO) has updated the UC on ESO plans (cf. attachment 6).

**UC35.R.3:** ESO should start a knowledge database on issues related to data reduction.

No significant work was done on this topic because other activities in the back-end were given higher priority (CalSelector, Phase 3 Infrastructure and Catalogue Facility, Reflex 2.x, X-Shooter science-grade pipeline) and because of the very limited use that the community is making of the Science Data Products forum.

**UC35.R.4:** ESO should consider approving the UC minutes formally in the autumn UC meeting and release it to the public.

ESO needs to consider the consequences of such recommendation in the light of its determination to align the Rules of Procedure (RoP) of all its committees. ESO would prefer not to tie the release of the approved minutes to the mid-term telecon, the organization of which is at the discretion of the Users’ Committee.

**UC35.R.5:** ESO software should be platform independent.

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 develop suggestions how to improve the OPC evaluation and feedback process, preferably in preparation of the autumn UC telecon.

The OPC Working Group has delivered a report to ESO, containing a number of recommendations for the improvement of the proposal review and time allocation at ESO. Leibundgut (DSC) has presented the content of the report during the UC meeting (cf. attachment 7).

**UC35.R.7:** ESO should provide associations between calibration and science frames in the data archive.

The CalSelector tool is available through the Science Archive Facility as of November 2011. Once science files are selected via an Archive query, the complete set of the most appropriate calibrations to process them is selected and attached to the request for the user to download. Ancillary files useful for the exploitation of the data (e.g. acquisition images) and relevant night log information are included, as well. The tool currently offers uniform coverage for data taken as of January 1, 2009. ESO is exploring options to extend the coverage as far back in the past as possible. It is likely that the look-back time will ultimately depend on the instrument and mode. Extensive user documentation is available at: http://www.eso.org/sci/archive/calselectorInfo.html and at http://archive.eso.org/cms/faq

**UC35.R.8:** ESO should redefine the proprietary period, which should not depend on the time of the first download.

ESO is ready to move to a scheme where the proprietary period starts as soon as the data is made available to the respective PI or delegate, independently of actual download.

For Service Mode runs, this means the moment the data is available for browsing and downloading through the ESO Science Archive Facility. For Visitor Mode runs, on the other hand, the clock would start ticking immediately after the actual data acquisition, because that’s when data is potentially available to the visitor on the offline workstation on the mountain. It is worth noticing here that in the vast majority of cases Service Mode data is transferred via the net and becomes available through the Science Archive Facility within one hour of acquisition. However, the delay can potentially be of 7-10 days for particularly data intensive observation modes (burst mode, etc.), in which case the transfer to Garching is via disks in the Diplo-bag.
15. CLOSED SESSION

16. SPECIAL TOPIC: “Public Survey Data Products”

16.1. ESO Introduction

Magda Arnaboldi and Jörg Retzlaff (Archive Science Group, Back-end Operations Department, ESO) introduce the special topic by presenting “Public Surveys at ESO” (attachment 8) and an overview of the Phase 3 process (attachment 9), respectively.

Prof. Trager (NL) asks for more details about VIKING and why the requirements for the Phase 3 submission were not met. Arnaboldi clarifies that the first data submission have taken place 1.5 years from the start of operations. The Phase 3 call was opened in April 2011 and all PIs were expected to validate and upload their data products within two months. ESO was in contact with all PIs, but no specific problem/request was brought to our attention by the VIKING team. In November 2011 the first VISTA Public Survey Panel review took place and all PIs were asked to submit reports on the status of their surveys. The PI of VIKING reported no major issues with the survey, but the team had not uploaded yet the data products. The PSP then issued a recommendation and Leibundgut (DSC) contacted the PI asking once more to upload the data products. Again, no feedback was received. ESO then decided to give higher priority to the other surveys, which had fully complied with the PS policy.

Prof. Zeilinger (A, Chair) asks whether the reduction of public surveys data is completely left to the responsibility of the PI or if ESO gives some guidelines on the reduction procedures and/or evaluates the quality of the submitted data. Retzlaff explains that ESO imposes some constraints (e.g., evaluation of the limiting magnitudes shall be provided, correction for illumination must be applied for determining the zero points, etc.), but PIs are fully responsible for the scientific quality of the data. Arnaboldi adds that the PIs are required to illustrate the data reduction process they have followed and, specifically, the quality checks they have carried out, as documented in the Survey Management Plans.

16.2. – 16.3 Feedback from the Users’ Committee

According to Prof. Zeilinger (A, Chair), the general impression from the Users’ Poll is that the community is not very aware of the potential of these data products. Public Surveys data products are quite popular, but for specific observations the community keeps downloading the raw data from the Archive and reduces them again. In his opinion, this is mainly because the generic user is not familiar with the structure of Phase 3 data.

Dr. Kumar (P) confirms that the format of these data products is rather complex and if ESO aims at increasing their popularity, simpler formats shall be provided (e.g., simpler catalogues). Comerón (DMO) clarifies that ESO Public Surveys are being implemented in a very different way from surveys like 2MASS or UKIDSS. The main goal of those surveys is to provide one single product, i.e. the final catalogue. ESO’s purpose, on the other hand, is to carry out multiple surveys simultaneously (currently 11) and the Phase 3 data products are one of the deliverables.

Prof. Trager (NL) comments that it may have been too premature to inquire the community about this special topic. Phase 3 data products are available only since December 2011 and the users who responded to the Poll were not aware of these data. He suggests that for next year Users’ Poll, ESO provides the UC with the list of users who have downloaded Phase 3 data.

16.4. General Discussion

Data homogeneity among different Public Surveys: Arnaboldi (ASG) explains that data products of five out of six VISTA Public Surveys come from the Cambridge Astronomical Survey Unit and are therefore homogeneous (Ultra-VISTA being the one exception). Data from the VST Public Surveys are processed in three different data centres (Cambridge, Capodimonte and Astro-Wise); to foster homogeneity, ESO organized a meeting with the representatives of the 3 centres to discuss the data products and the report is
available at:  
http://www.eso.org/sci/observing/PublicSurveys/vstdataproductworkshop.html

However, ESO cannot guarantee homogeneity of the catalogues coming out of the data products, because these are responsibility of the PIs and the choice of the catalogue extraction procedure is science-driven to fulfil each survey’s specific science goals.

Prof. Zeilinger (A, Chair) asks whether the generic user is able to trace back the reduction and calibration history of a given dataset. The answer is yes because the meta-data and the structure of the header of Phase 3 data in the Archive keep track of all the reduction and calibration steps.

Dr. Kumar (P) points out that VISTA Public Surveys provide photometrically deep data covering almost the entire southern sky. However, PS PIs rely on the data products computed at the Cambridge Astronomical Survey Unit (CASU) and do not seem to invest much effort to improve them. In his opinion, ESO should ensure that VISTA data will be scientifically valuable and exploitable also in the future, as much as surveys like 2MASS or UKIDSS. Romaniello (BOD) stresses again the fact that it is not ESO responsibility to check where and how the data reduction is performed. ESO relies on the PIs’ certification, who take full responsibility of the quality of the final released data. This is ESO policy for Public Surveys.

**Phase 3 data upload policies/procedures:** Prof. Zeilinger (A, Chair) asks about the time-scale between the uploading of Phase 3 data in the Archive and their subsequent availability to the generic user. Arnaboldi (ASG) explains that this depends on the data volume and on the data format provided by the PI. The closer the format to the ESO standard is, the easier and faster the data can be ingested in the Archive. So far, our best performance is for the Ultra-VISTA data-set, available in the Archive one month after the Phase 3 upload.

Prof. Trager (NL) asks to clarify ESO position and responsibility towards Public Survey data products, i.e. whether ESO is going to act as a high-level data interface (like 2MASS or SDSS) or a data repository. Leibundgut (DSC) explains that ESO position is clear since many years: ESO does not have the resources to handle the reduction of Public Survey data. This is why this task was left to the community. ESO requires the reduced data to be returned so that they can be made available to the community at large. As long as these public data products come with a suitable description, the community will use them as much as 2MASS or UKIDSS data. In fact, the popularity of the latter (when compared to other surveys, e.g., DENIS) strongly depends on the fact that they are public.

Prof. Zeilinger (A, Chair) reports that, according to the Users’ Poll, many PIs of normal observing programmes are not aware of the possibility to upload their reduced data in Phase 3, some of them (working in competitive areas) do not want to share their data products and many of them are concerned about the high standards requested by ESO. He then asks whether PIs of normal observing programmes have requested to include their data in Phase 3 and whether ESO is providing any support to them. Arnaboldi (ASG) replies that data from Large Programmes dating back to Period 75 are being uploaded in Phase 3; the process is taking time because PIs with old data-sets are requested to adapt them to the new format/standard. ESO also received some request from PIs of new Large Programmes and the general impression is that they are willing to contribute. Both large and normal programme PIs can upload their data in Phase 3 following the ESO data standard specification.

Dr. Fuller (UK) expresses his concerns about this schema and the possibly lower quality that some Phase 3 data-sets may end up having. Romaniello (BOD) and Leibundgut (DSC) clarify that PIs have to submit a file, together with the data products, describing in detail the data reduction procedure. Moreover, the PIs are encouraged to upload their data on Phase 3 after publication, so that there is also a scientific paper to refer to for more details on data quality. At this point, it is up to the Archive user to decide whether a given dataset is suitable for his/her scientific purposes.

Talking about ESO standards, Prof. Zoccali (CL) asks which is the data product standard expected for Spectroscopic Public Surveys (SPS). Prof. Trager (NL) adds that PIs of current large spectroscopic programmes have not received so far clear guidelines about Phase 3 (whether it is mandatory, which format the spectra should have, etc.). Moreover, he is concerned about how ESO is going to cope with such a variety of data products (VISTA and VST Public Surveys, Spectroscopic Public Surveys), all at once in the
forthcoming years. Arnaboldi (ASG) explains that the standard is being defined now, in collaboration with the SPS PIs. A final document with clear guidelines will be available in mid 2012. Moreover, SPS PIs are bound to what they stated in their Survey Managements Plans, i.e. 1-D chiefly calibrated spectra and source catalogues, in a homogeneous and easy to handle format. Some relevant information about their scientific objectives will be included in the meta-data. ESO has a concept in place to support Phase 3 submission and the important milestones for interacting with the users have been identified.

Prof. Trager (NL) suggests that Large Programmes PIs are contacted by ESO way before the Phase 3 submission time, and asked to specify which products they wish/plan to upload. Also, they should be given some guidelines on the format (structure of the data, keywords, etc.). It would be good if this information were to be included already in the Phase 2 documentation. This would speed up the submission process and avoid un-necessary re-reductions. Arnaboldi (ASG) likes this suggestion and thinks that PIs of Large Programmes shall be engaged in a sort of data management plan as the PI of a Public Survey. She also adds that ESO will soon organize a Workshop for all PIs of Public Surveys and Large Programmes to clarify all details.

Prof. Zeilinger (A, Chair) asks whether Phase 3 data products from GTO programs will also become available to the community. Arnaboldi (ASG) re-states that uploading of Phase 3 data products is mandatory only for Public Survey and Large Programme PIs. GTO PIs may upload and publish data products on a voluntary basis as any other PIs of normal programmes.

**VST Operations and Public Surveys:** Prof. Zeilinger (A, Chair) asks about VST downtime. Arnaboldi (ASG) replies that in the last 6 months the operational efficiency has improved, reaching only 15% downtime in February 2012, mostly due to overheads and problems with the telescope. She also reminds the UC that VST commissioning lasted less than one year because of the pressure to start executing some of the surveys (e.g., ATLAS), in strong competition with other surveys. This had clearly an impact on the availability of VST/OmegaCAM for regular operations because some testing and fixing were still pending.

Prof. Zeilinger (A, Chair) asks whether the current number of VST Public Surveys (i.e., 3) will be maintained or increased in future. Romaniello (BOD) says that this will be evaluated when the three on-going surveys are completed. Leibundgut (DSC) adds that this is an important issue and ESO is already discussing it with its Scientific Technical Committee. VST will last at least 10 years, the on-going Public Surveys and the GTO programs will fully occupy part of this period, but after that ESO has to decide how to further exploit the telescope. The same applies to VISTA. The possibility to equip it with a wide-field spectrograph is being discussed.

**Miscellaneous:** Prof. Zeilinger (A, Chair) asks whether the data products are compatible with the Virtual Observatory standards. Arnaboldi answers that, in principle, they are.

Prof. Zoccali (CL) reports that several users seem to experience problems in downloading Phase 3 data from the Archive. When too many parameters are specified in the input form, the Archive tool returns no data, although the requested dataset has been already released.

### 17. CLOSED SESSION

### 18. ACTION ITEMS AND RECOMMENDATIONS

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

The new Chair, Prof. Trager (NL, Vice Chair), takes over the chairmanship of the final session of the meeting and announces the UC recommendations.

**UC36 Recommendations**

The UC recommends:
**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.

**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.

**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.

**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.

**UC36.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.

**UC36.R.6:** ESO should release the report of the OPC Working Group to the UC.

**UC36.R.7:** ESO should not follow the recommendations of the OPC Working Group on yearly La Silla proposal submissions and consortium-driven proposals.

**UC36.R.8:** ESO should continue its efforts towards rebalancing the load on individual OPC reviewers to continue the improvement of the OPC process.

**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.

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

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

**UC36 Action Items**

The UC will undertake the following tasks:

**UC35.AI.1:** The UC Chair and STC Chair should have a Telecon to discuss how best to share information between their meetings.

**19. ANY OTHER BUSINESS**

None.

**20. CLOSING REMARKS**

Prof. Trager (NL, Chair) thanks everyone for this year contributions and, in particular, Primas (USD) and Beller (USD) for the careful organization of such a successful and productive meeting. He is very much looking forward to next year annual meeting. Finally, he takes the opportunity to thank the UC members who have reached the end of their term: Prof. Zeilinger (A, former Chair), Dr. Groenewegen (B), Prof. Zoccali (CL), Dr. Grundahl (DK, excused) and Dr. Katajainen (FIN).

Kaufer (DOO, LPO) thanks everyone on behalf of the ESO Director General for the very constructive meeting, for the attendance as well as the preparatory work that went into it. He stresses that the UC work is very important to ESO and ESO hopes to be able to report progress on the different issues at the next UC meeting. He furthermore thanks all ESO staff involved.