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EUROPEAN ORGANISATION FOR ASTRONOMICAL
RESEARCH IN THE SOUTHERN HEMISPHERE

FOR APPROVAL

Voting Procedure – Simple Majority

COUNCIL

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VLT GTO Policy

This document is for **ESO INTERNAL USE** until after Council Approval then **PUBLIC**

Council is invited to approve the policy for the granting of
Guaranteed Time Observations on the VLT

1. Introduction

A summary of the VLT Guaranteed Time Observations (GTO) allocations and governing principles was presented in Cou-1514 rev. (December 2013). Cou-619 rev. 2 (April 1998) established the formula linking the amount of GTO to the value of the resources in cash and manpower provided. The 'VLT/VLTI Science Operations Policy' (Cou-996 rev. – December 2004) stipulated a ceiling of 10% of the global VLT/VLTI time for the amount of GTO that may be scheduled in any given semester. Cou-1301 (May 2010) 'Allocation of GTO Proposals' specifies the modalities of VLT GTO time allocations. All awards of VLT GTO required prior approval by Council.

This document defines the ESO policy for the allocation of VLT GTO for future instruments in compensation for staff effort and cash invested in VLT instrumentation and related systems by external consortia. It brings many of the procedures for GTO on the VLT in line with those described in Cou-1543 rev. 2 (November 2014) for GTO on the E-ELT. It supersedes in particular Cou-619 rev. 2 from 1998.

This document has been finalised taking into account inputs from the Committee of Council and STC.

2. Eligibility for GTO

Consortia will be rewarded with Guaranteed Time Observations for providing hardware or software that enhances the ESO scientific capabilities, allowing ESO to focus resources and expertise across the Member States on projects that are scientifically beneficial for the ESO community.

3. GTO awards

The total number of GTO nights on the VLT per annum shall target a maximum of 15% of the number of observable nights, increasing the fraction from 10% (Cou-996 rev. Appendix 2). The GTO will be awarded according to the following guidelines:

- The number of GTO nights available for each instrument to compensate for Consortium staff effort will be specified in advance in the Call for Proposals, or before the start of agreement negotiations if no Call is made
- The number of GTO nights to compensate for Consortium staff effort will be non-negotiable
- All instrument or sub-system consortia will be offered a GTO compensation for their FTE efforts that is proportional to the *estimated scope* of the construction agreement. Since the GTO must be decided and stated in the call for proposals, before even Phase A, the allocation will be set based on the *expected scale* of the facility. As a baseline, a typical facility instrument will receive a total of 150 nights of GTO in compensation for the Consortium staff effort. Instrument upgrades or sub-systems will receive an appropriate fraction thereof
- The total number of GTO nights will be granted to the external Consortium and distributed as agreed within their Memorandum of Understanding (MoU)

- Consortia shall submit a Science Exploitation Plan for review at FDR in order to ensure optimum use of the GTO
- The award will normally be scheduled over the first 5 years of operation for the instrument
- ESO will schedule the GTO, in consultation with the instrument PI, close to the time of instrument delivery, and
- All proposed GTO awards, together with an updated model showing predicted future total GTO usage, must be presented to Council for approval in each case.

4. GTO on other instruments

Although the award of GTO to a consortium should be used primarily with a consortium's own instrument, a complete scientific programme may require observations with other instruments. Instrument consortia will be allowed to take a maximum of 25% of their awarded GTO on another instrument. The instrument selected must be in regular operation during the period of GTO.

If the same GTO science is proposed for the same instrument by two consortia, priority will be given to the consortium that constructed it. Other conflicts will be resolved by the Observing Programmes Committee (OPC), as is already the case for clashes between GTO and Open Time proposals.

5. Cash Contributions

External cash contributions in return for GTO allocations will be considered as part of instrument funding. In some cases ESO may not have sufficient funds within its budget to cover construction/hardware costs of an instrument that would otherwise be of scientific importance for the whole community. In these cases, GTO allocation in return for cash funding will be allowed, provided it is scientifically driven – i.e. it must enable a key scientific goal of the VLT to be reached. All institutes making cash contributions must be a full and active member of the consortium, adding real value to the project. The exchange rate for cash contributions shall be 83 kEUR¹ per GTO night (in 2015 Euros, indexed to the year of contract signature using the official ESO inflation rate). Any such GTO allocations must be presented to Council for approval.

6. Non-standard situations

ESO may exceptionally consider the use of GTO as compensation in other circumstances not explicitly covered in this policy (such as a major involvement by the consortium in the operation of an instrument). Any such use must receive a positive recommendation by the STC prior to explicit approval by Council.

¹ Calculated on the same basis (cost of amortisation and operations, 2015) as the calculation in Cou-619 rev 2.

7. Penalties on GTO

Penalties on GTO will normally be included in ESO's agreements with consortia for:

- late delivery of an instrument, and/or
- significant failure to meet the agreed technical specifications. The reduction in GTO will be proportional to the loss in overall scientific capability in this case.

The implementation of GTO penalties must be approved by Council. Consortia will be exempt from penalties if the delay is due to factors beyond their control.

8. GTO Allocation Process

The GTO allocation process will follow existing rules governing the use of GTO, as defined in Appendix 2 of the "VLT/VLTI Science Operations Policy" (Cou-996 rev, approved in December 2004), modified in part by "Allocation of GTO Proposals" (Cou-1301, approved in June 2010). However, in the case of Large GTO Programmes – those requesting more than 100 hr – the GTO teams will be expected to make public the resulting science products on a timescale to be agreed with ESO in a Data Management Plan.

9. Service and visitor mode

The first 50% of guaranteed time shall be taken in Visitor Mode, in order to ensure that the observatory benefits from presence of consortium experts. The remainder can be taken in any mix of Visitor- and Service-Mode nights. In the case of Service-Mode nights, proposals ranked higher than grade 3 will be treated as Class A programmes for the purpose of scheduling.

10. Council Approval

Council is invited to approve the policy for the granting of Guaranteed Time Observations on the VLT.