



Large Programmes and Surveys at ESO

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Third workshop

- 1st workshop in May 2003
 - Presentation of the first Large Programmes
 - Discussion on surveys
 - Summary in Wagner & Leibundgut ([Messenger 115, 41](#))
- 2nd workshop in October 2008
 - Presentations of new Large Programmes
 - Summary in Mathys & Leibundgut ([Messenger 135, 53](#))
- “Celebration of Science”



Large Programmes

- Introduced in 1996
 - replace “Key Programmes” (not really successful)
- Focus on specific science goals and large requests
 - request >10 nights (100 hours)
 - span several periods (up to 4)
- Overall limitation to less than 30% of total available time (on VLT)
 - overall so far used 13% of VLT time
- Allocation in a special discussion of the OPC across the different scientific categories
 - “appeal to a large fraction of astronomical community”



Large Programmes

- Highest priority for the observations
 - very high completion fraction
 - some programmes take significantly longer than 2 years to complete → operational issues
- Very productive
 - only very few (<10%) do not produce a refereed publication
 - same productivity per night as other programme types
 - higher than regular programmes
- Regarded as successful
 - summaries of the previous LP workshops
 - “Most LPs produced excellent results and unique science”
 - “Allowed European astronomers to compete with best American groups”



Surveys

- ESO/SRC Southern Sky Survey
 - “first” programme of ESO
- Various other surveys done as LPs (or GTO)
 - e.g. ESO Imaging Survey, GOODS, HARPS
- Strong support from the discussion of the 1st LP workshop
 - Surveys are needed, in particular in support of VLT science
 - Scientific and scheduling coordination of surveys essential for a rational and effective use of survey telescopes
 - To ensure coordination surveys should be evaluated as a distinct category with respect to LPs. ESO should establish a proper procedure to ensure such coordination.



Surveys

- Implemented as imaging surveys for VISTA and VST
 - large fraction of observing time (>75%) dedicated to surveys
 - 6 VISTA surveys
 - 3 VST surveys
- Spectroscopic Surveys
 - Following strong recommendations by STC and a scientific workshop in March 2009
 - started in 2011
 - Gaia-ESO (FLAMES/UVES), PESSTO (EFOSC/SOFI)
 - 2 VIMOS survey under way
 - LEGA-C, VANDELS
- New call for Letters of Intent for VISTA survey
 - deadline 15 October 2015
 - start observations October 2016



Surveys

- Return to the community
 - Large, coherent data sets to address specific science questions
 - Improved data reduction and analysis procedures through large coordinated efforts
 - Advanced data products available to all through the ESO archive

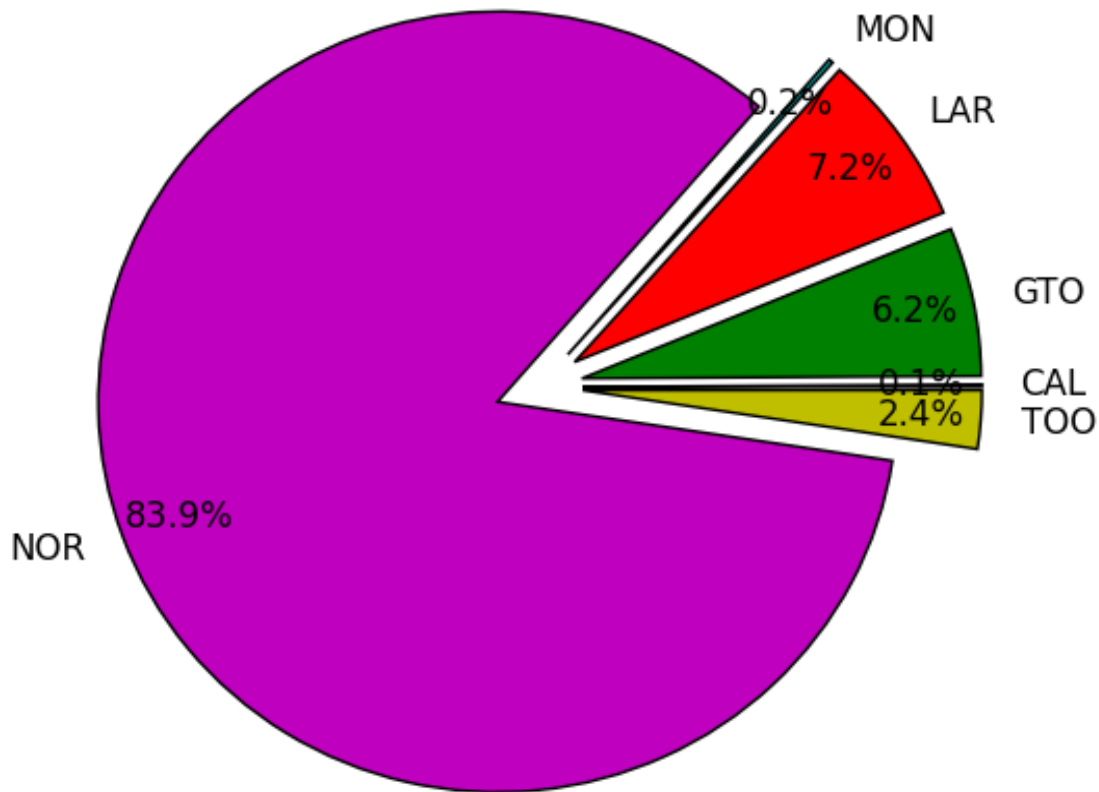


Putting things in perspective

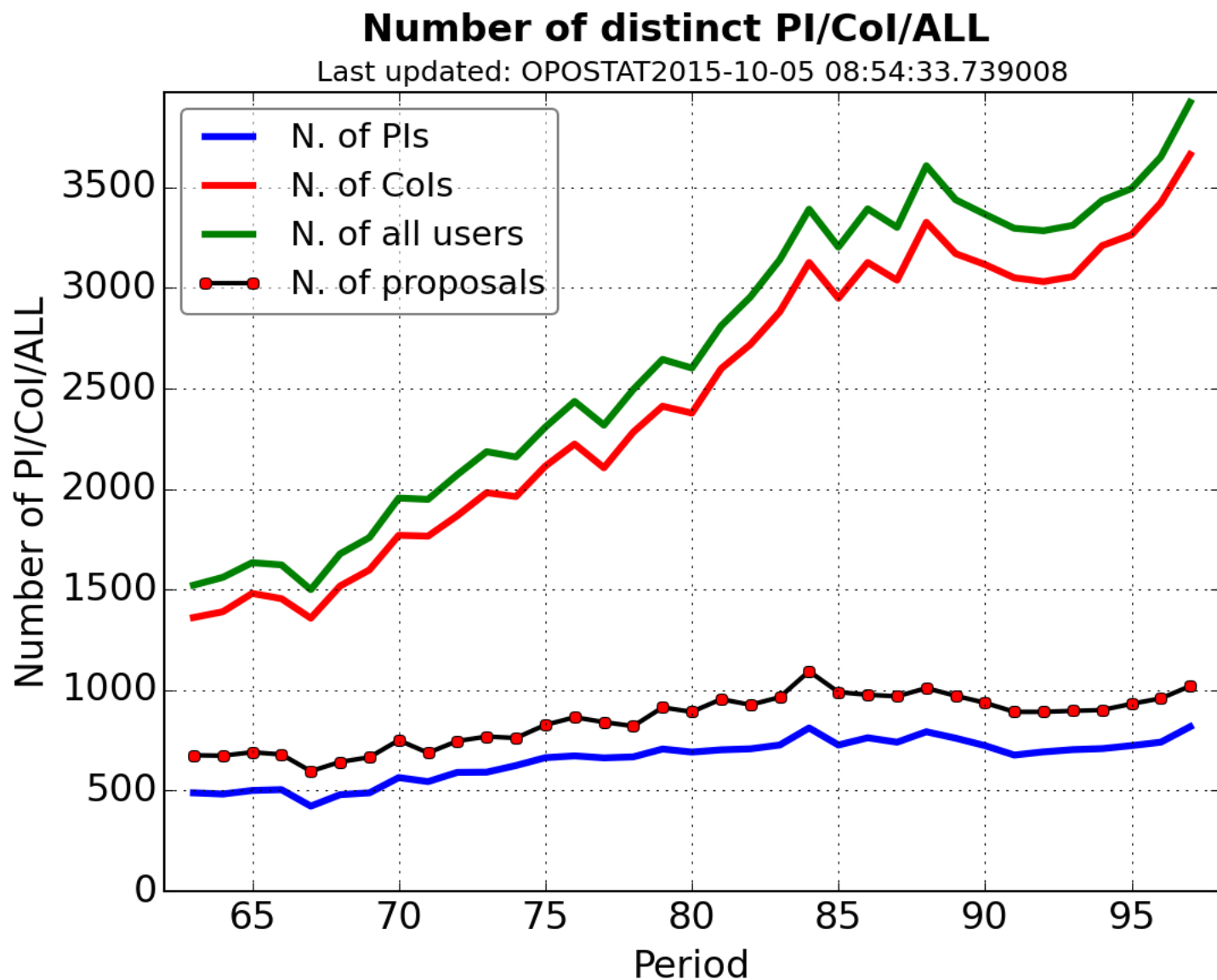
■ Example P97 proposals

Time request per programme type in Period 97

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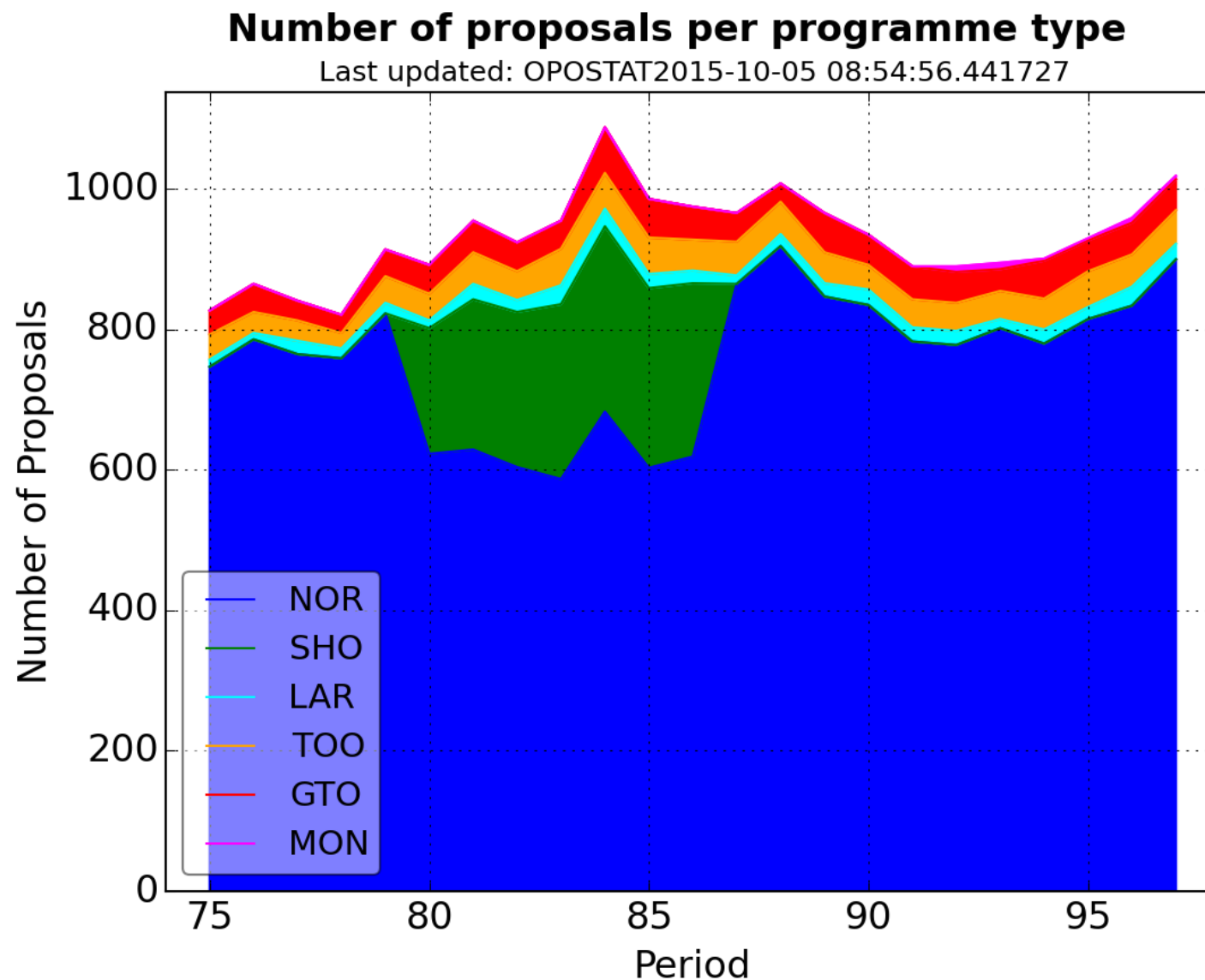


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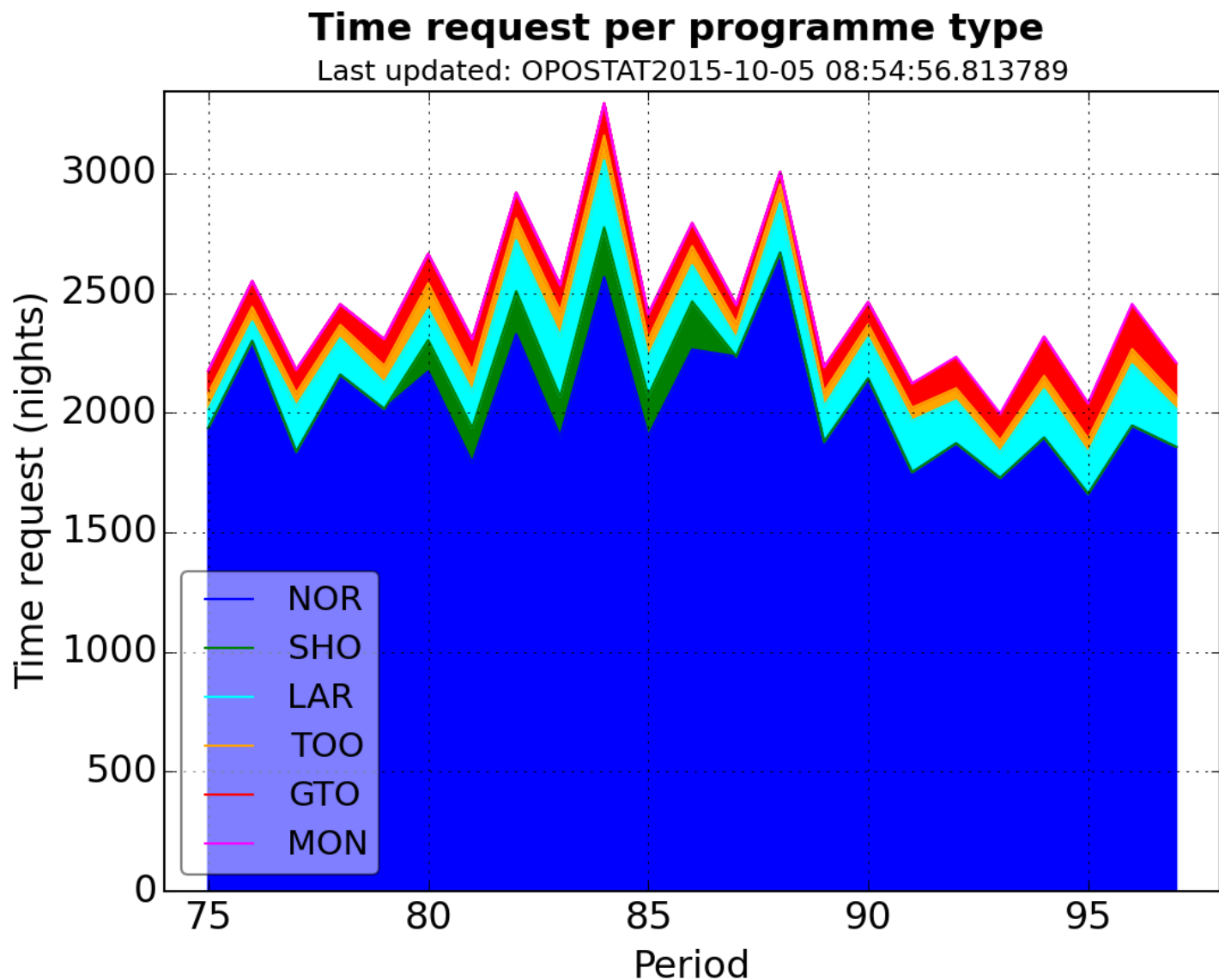


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Putting things in perspective





Future

- LPs and Surveys are important parts of the ESO programme
 - Future survey instruments: 4MOST, VISTA, MOONS/VLT
- Value of coherent data sets increasing
 - La Silla telescopes and VLT increasingly will move towards larger programmes
 - SOXS for NTT
 - HARPS and NIRPS for 3.6m
- Imaging surveys after LSST?