



ALICE

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On behalf of the Legnaro-Padova T2
team

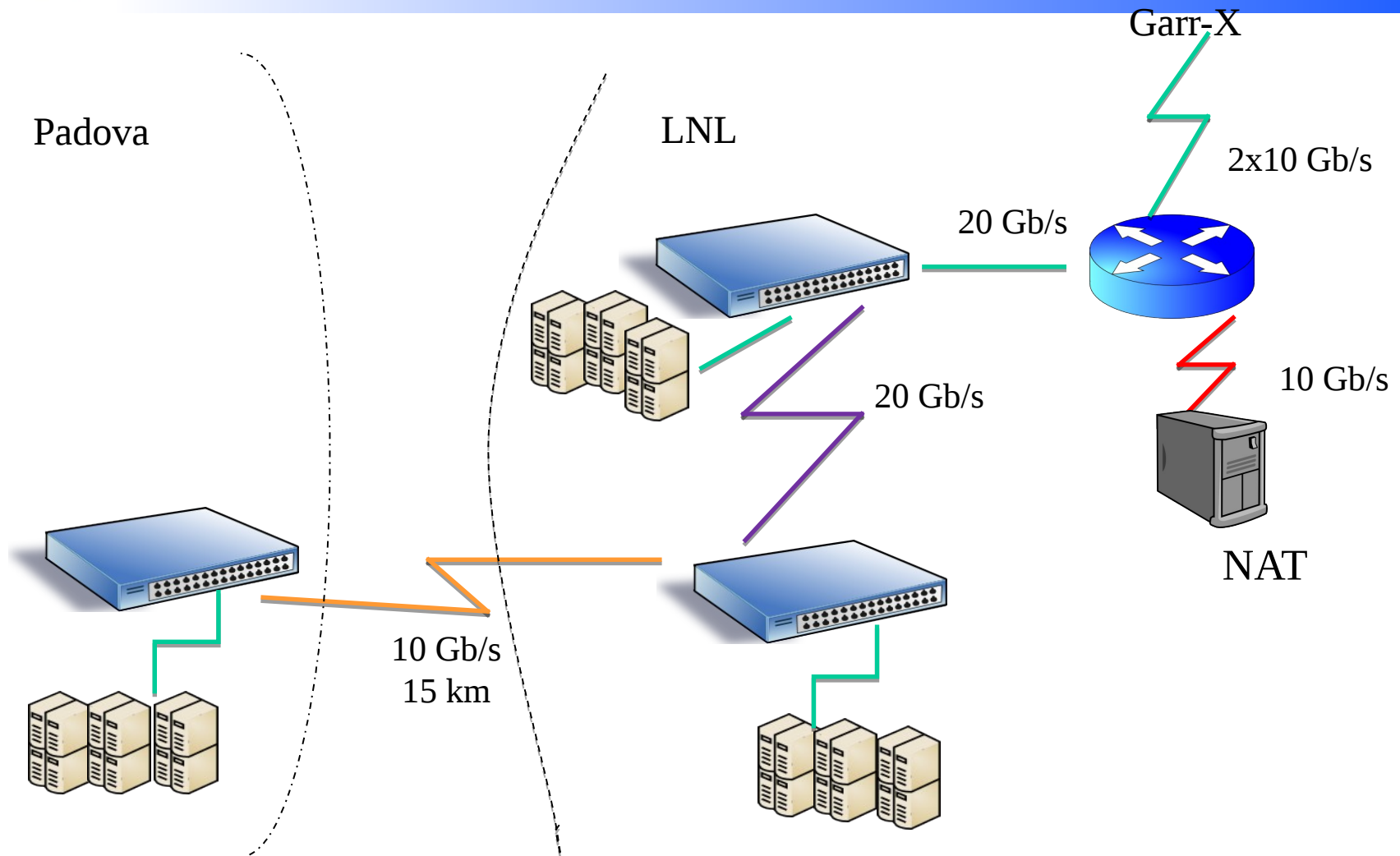
Padova-Legnaro Tier-2 Status update



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Tier-2 Padova-Legnaro

- Tier-2 distributed between 2 sites (Padova and LNL)
- Sharing of infrastructures
- Sharing of resources
 - WNs in both sites
 - Computing and storage services (CEs, Storage, VOBOX) in Legnaro
 - Monitoring services (Nagios, Ganglia, Cacti) in Padova
- Sharing of manpower
 - LNL: M. Biasotto, S. Fantinel
 - Padova: A. Crescente, M. Sgaravatto
 - Contact person with the experiment: A. Dainese
 - Involvement of persons of Servizio Calcolo when needed
- ALICE and CMS Tier-2





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Storage

- No updates in the last year
 - Xrootd (v. 3.1.0) nativo senza layer intermedi
 - 1 redirector (su VM) + 7 servers
 - 386 TB
- 2 x (MD3660, 240 TB) to be installed soon
- For 2014 and 2015 only replacement of old hardware is foreseen

1 Nexan SataBeast (32 TB)	Jan 09
1 Nexan SataBeast (32 TB)	Jan 10
1 Nexan SataBeast (65 TB)	Jan 11
2 Dell PowerVault MD3600 (130 TB)	Jan 12



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Computing: resources and services

- Resources dedicated to ALICE
 - 64 WNs, 992 cores, 9000 HS06 (no updates in the last year)
- Possibility to use CMS resources when they are free
 - 133 WNs, 1880 cores, 20200 HS06
- Worker Nodes ~ 60 % at LNL, 40 % at Padova, single LSF cluster
 - SL6, EMI-3
- 6 CREAM CE (used by all VOs) @ LNL
 - Grid interfaces to the computing resources
 - SL6, EMI-3
- 1 VOBOX @ LNL
- CVMFS for software provisioning on worker nodes
 - We used Torrent before
 - Torrent → CVMFS migration done in Sept. 2013
- For 2014 and 2015 only replacement of all hardware is foreseen (as all non-RECAS sites)

- Everything is running smoothly
- No relevant incidents/problems to be reported
- The best Italian Tier-2 wrt availability and reliability

	Availability (ops/alice)	Reliability (ops/alice)
Jun 2013	100 %	100 %
Jul 2013	100 %	100 %
Aug 2013	100 %	100 %
Sep 2013	100 %	100 %
Oct 2013	100 %	100 %
Nov 2013	99%	99%
Dec 2013	100 %	100 %
Jan 2014	100 %	100 %
Feb 2014	100 %	100 %
Mar 2014	100 %	100 %
Apr 2014	100 %	100 %
May 2014	100 %	100 %

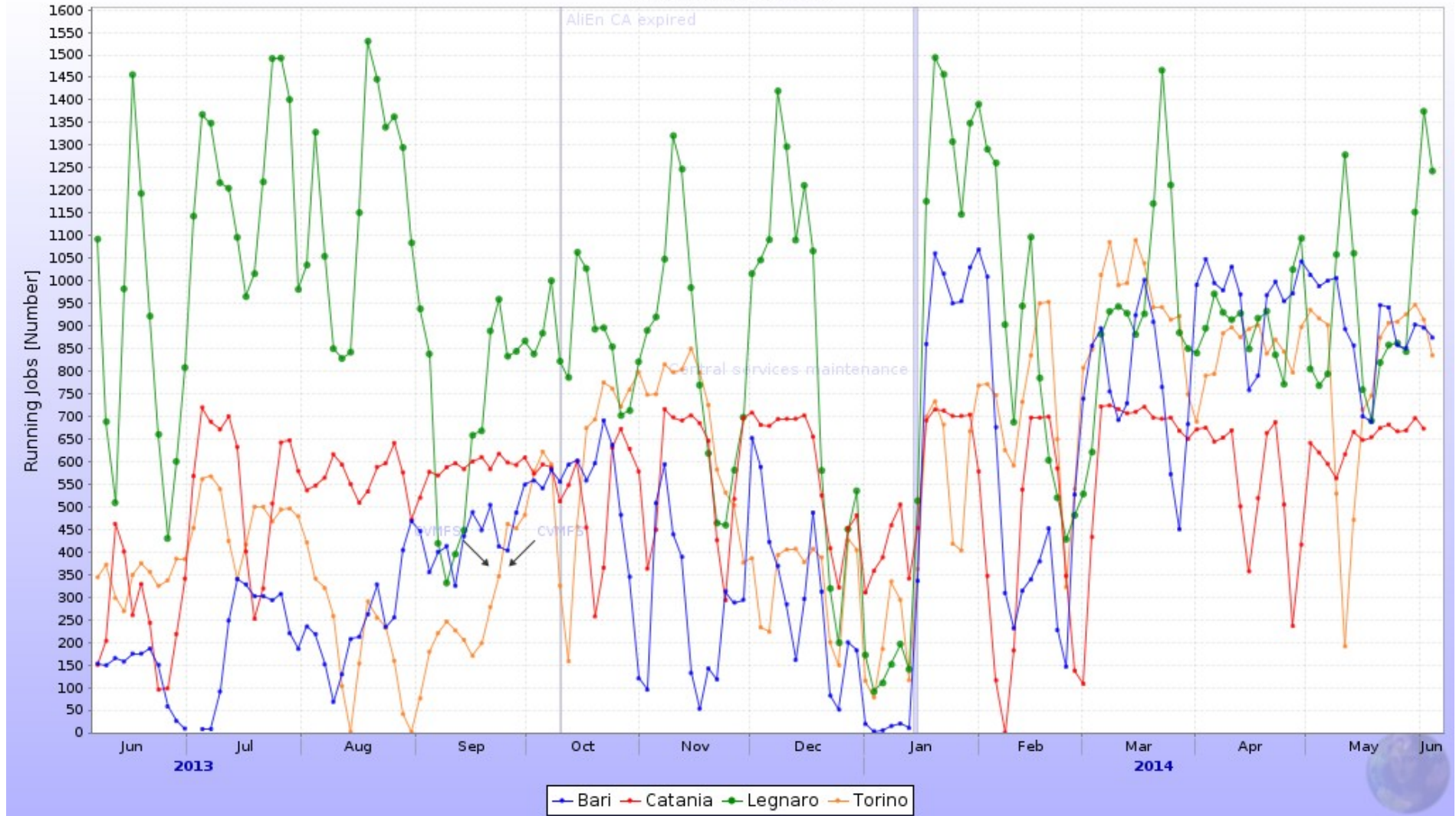


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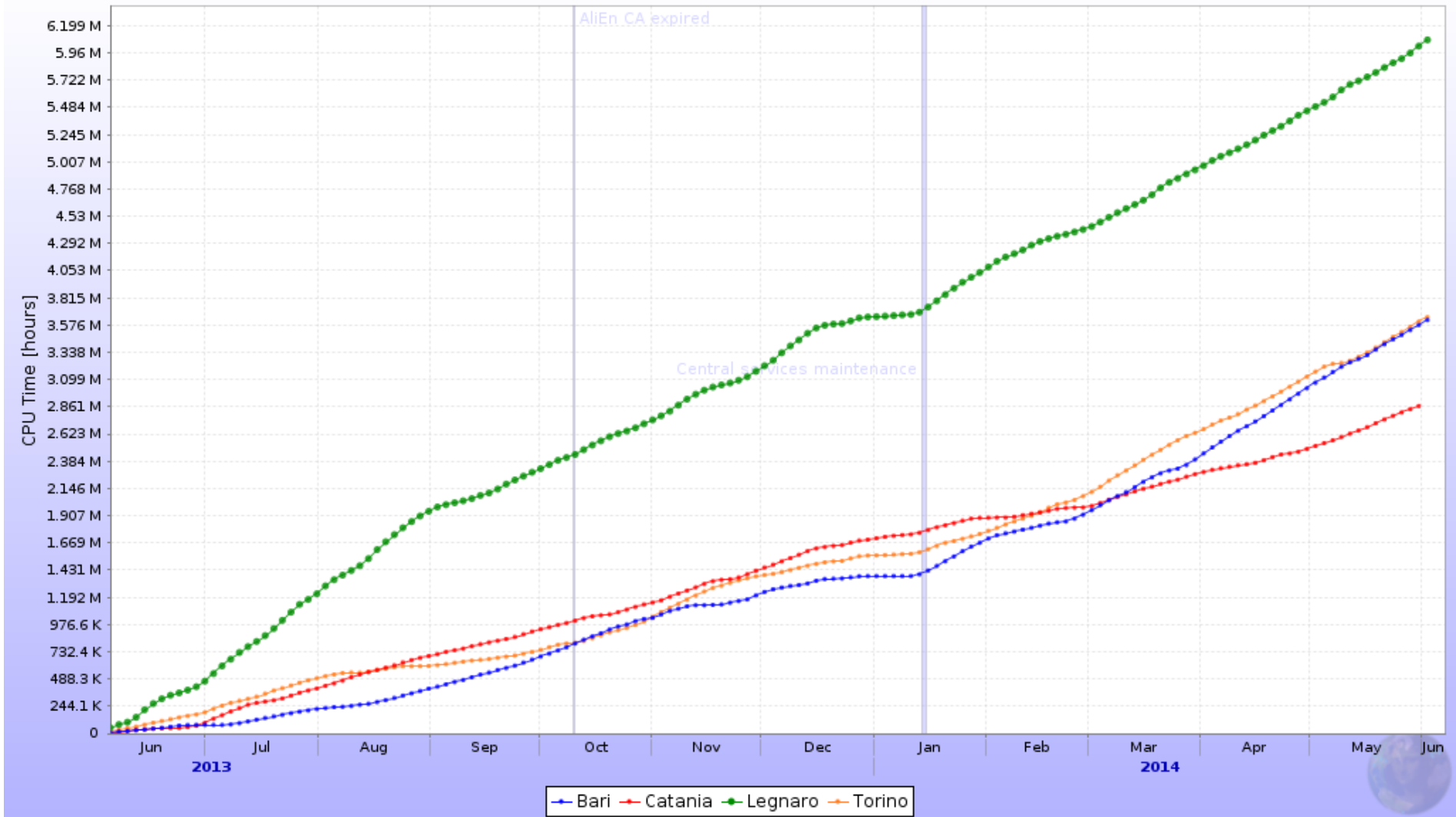
Running jobs in the Italian T2s last year



Running Jobs



Total CPU time for ALICE jobs

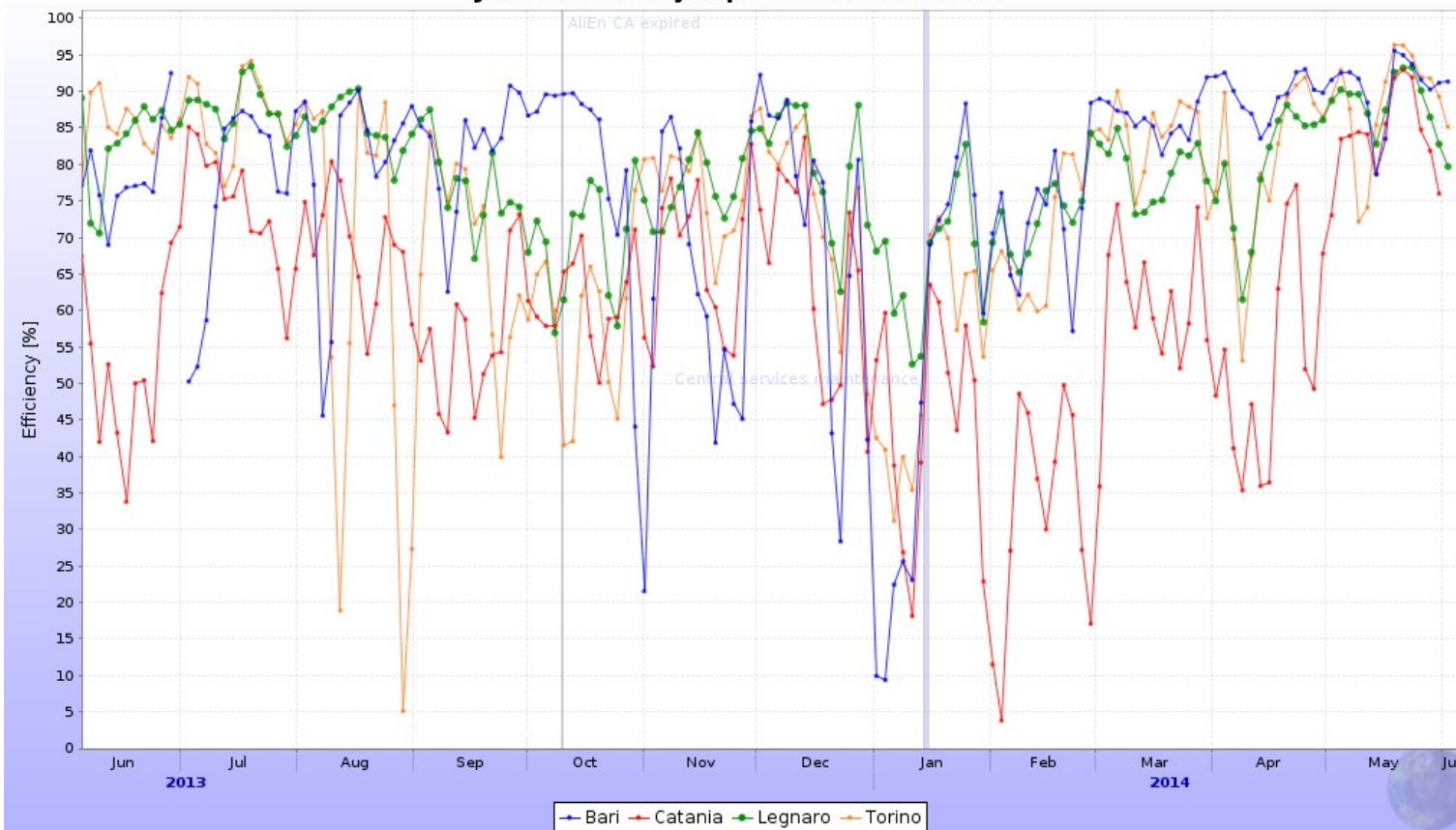




Efficiency in the Italian T2s last year

A

Jobs efficiency (cpu time / wall time)



Jobs efficiency (cpu time / wall time)

	Series	Last value	Min	Avg	Max
1.	Bari	91.23	0	76.7	100
2.	Catania	75.99	0	60.1	100
3.	Legnaro	79.51	0	78.96	100
4.	Torino	84.64	0	74.09	100
Total		82.84		72.46	

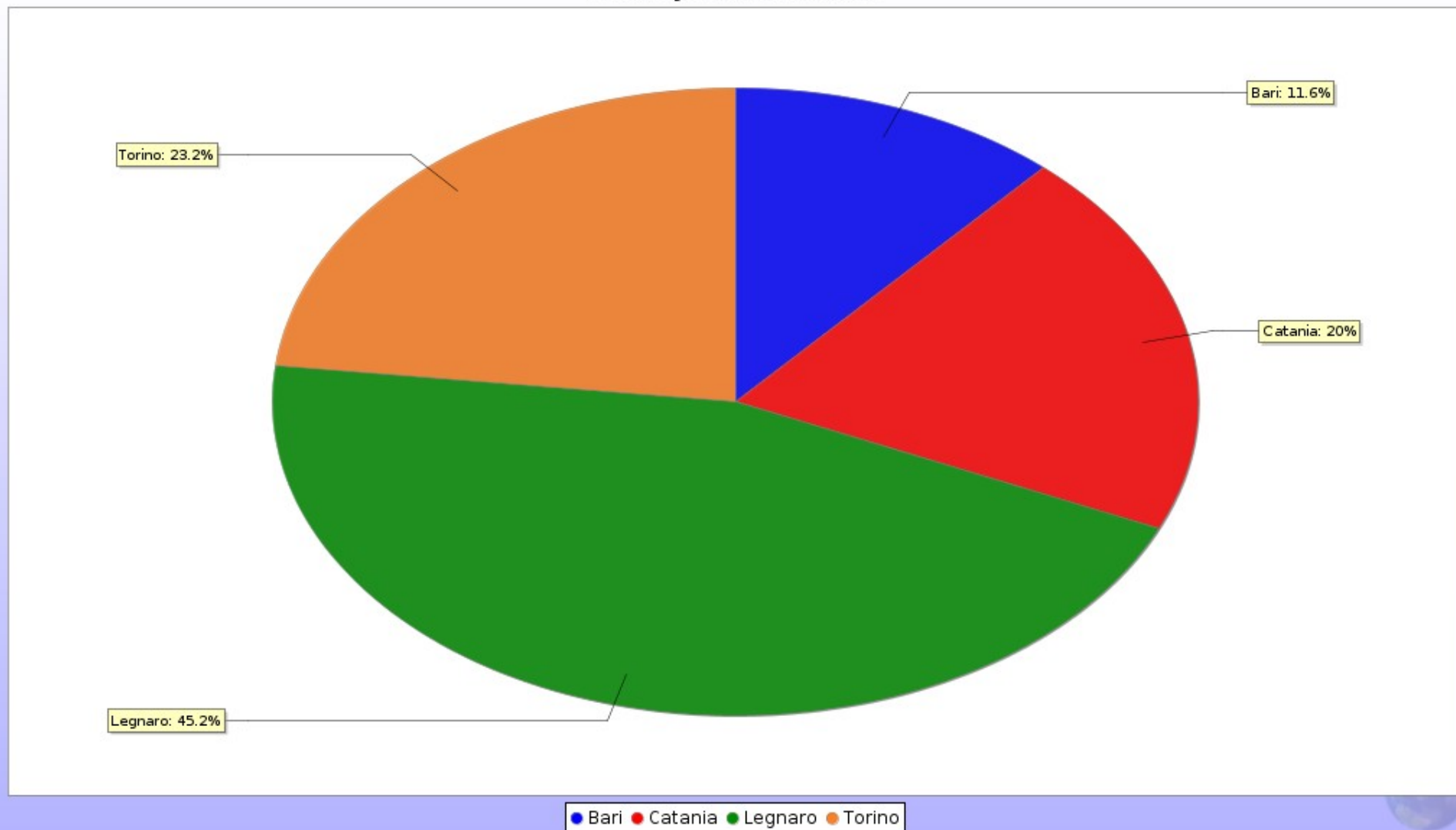


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Done jobs in the Italian T2s last year



Done jobs statistics





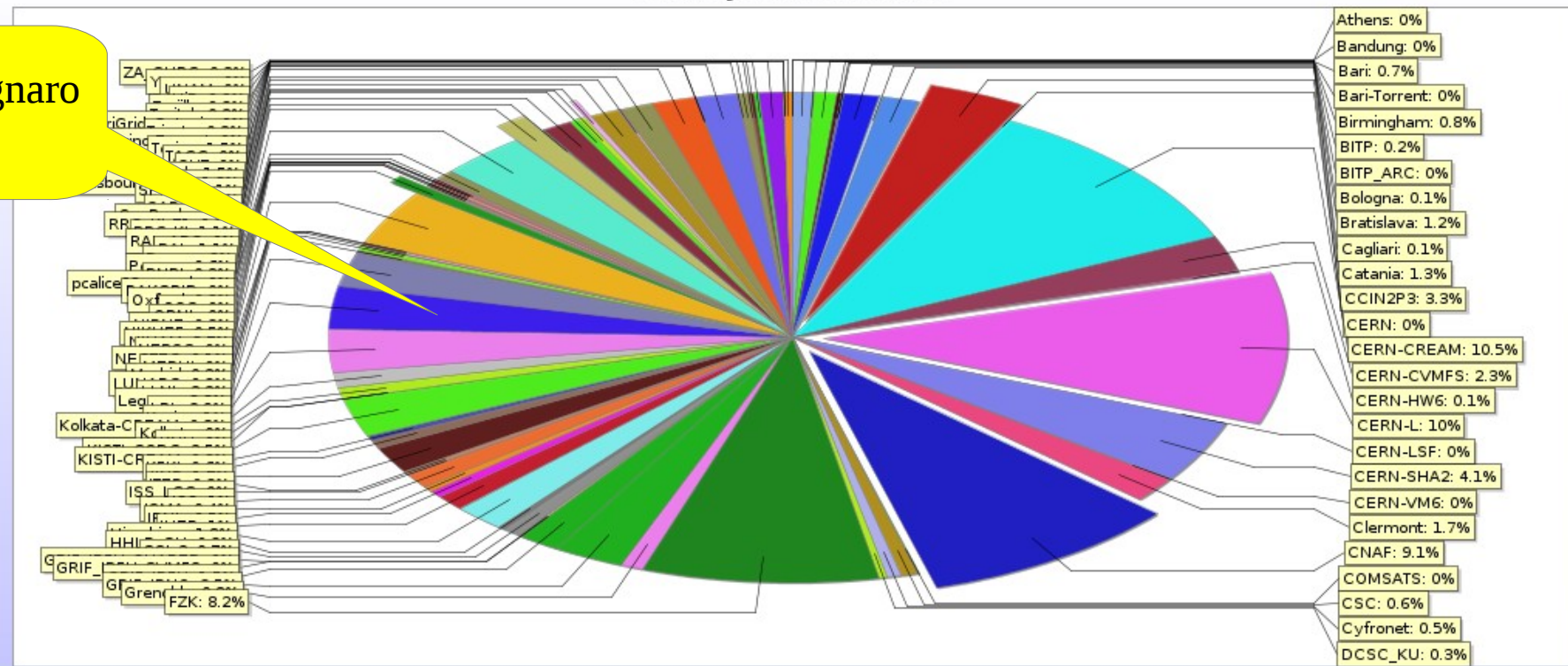
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Done jobs in all ALICE sites last year



Done jobs statistics

Padova-Legnaro
3 %



- Athens ● Bandung ● Bari ● Bari-Torrent ● Birmingham ● BITP ● BITP_ARC ● Bologna ● Bratislava ● Cagliari ● Catania ● CCIN2P3 ● CERN ● CERN-CREAM ● CERN-CVMFS ● CERN-HW6 ● CERN-L ● CERN-LSF ● CERN-SHA2 ● CERN-VM6 ● Clermont ● CNAF ● COMSATS ● CSC ● Cyfronet ● DCSC_KU ● FZK ● Grenoble ● GRIF_IPNO ● GRIF_IRFU ● GRIF_IRFU-CVMFS ● GRIF_IRFU_SHARED ● GSI_2 ● HHLR_GU ● Hiroshima ● IHEP ● IPNL ● ISMA ● ISS ● ISS_LCG ● ITEP ● JINR ● KFKI ● KISTI-CREAM ● KISTI_GSDC ● KNU ● Kolkata ● Kolkata-CREAM ● Kosice ● LBL ● Legnaro ● LLNL ● LUNARC ● Madrid ● MEPHI ● NECTEC ● NERSC ● NIHAM ● NIKHEF ● NIPNE ● ORNL ● OSC ● Oxford ● PAKGRID ● pcalice92.cern.ch ● PNPI ● Poznan ● Prague ● RAL ● RAL_ARC ● RRC-KI ● RRC_KI_T1 ● SaoPaulo ● SARA ● SNIC ● SPBSU ● Strasbourg_IRES ● Subatech ● SUT ● TACC ● Torino ● Torino-Torrent ● Trieste ● TriGrid_Catania ● Troitsk ● Trujillo ● UIB ● UNAM ● Yerevan ● ZA_CHPC

THE END