Enabling Grids for E-sciencE

# EGEE Pre-Production service

## A distributed testing cluster

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IberGrid

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Information Society

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- **Introduction**
  - Middleware Flow

- **Pre-Production Procedure**
  - Complete Release Process
  - Special releases in Pre-Production
  - Standard release

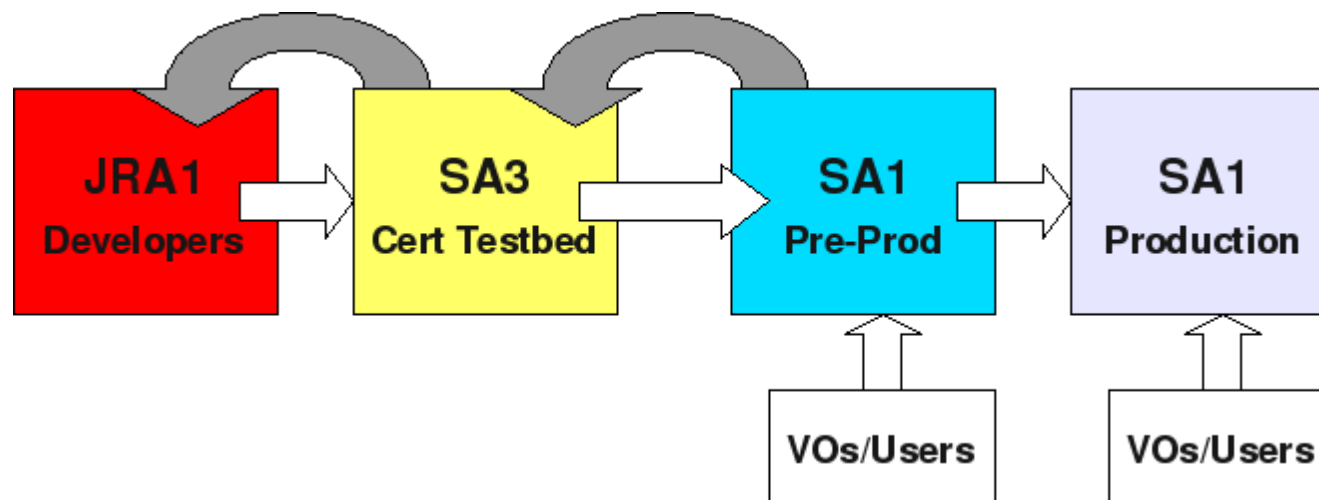- **Available Resources**
  - PPS Gridice monitoring tool

- **VOs in Pre-Production**
  - About Diligent VO

- **How to join to PPS**

- **Future Work**

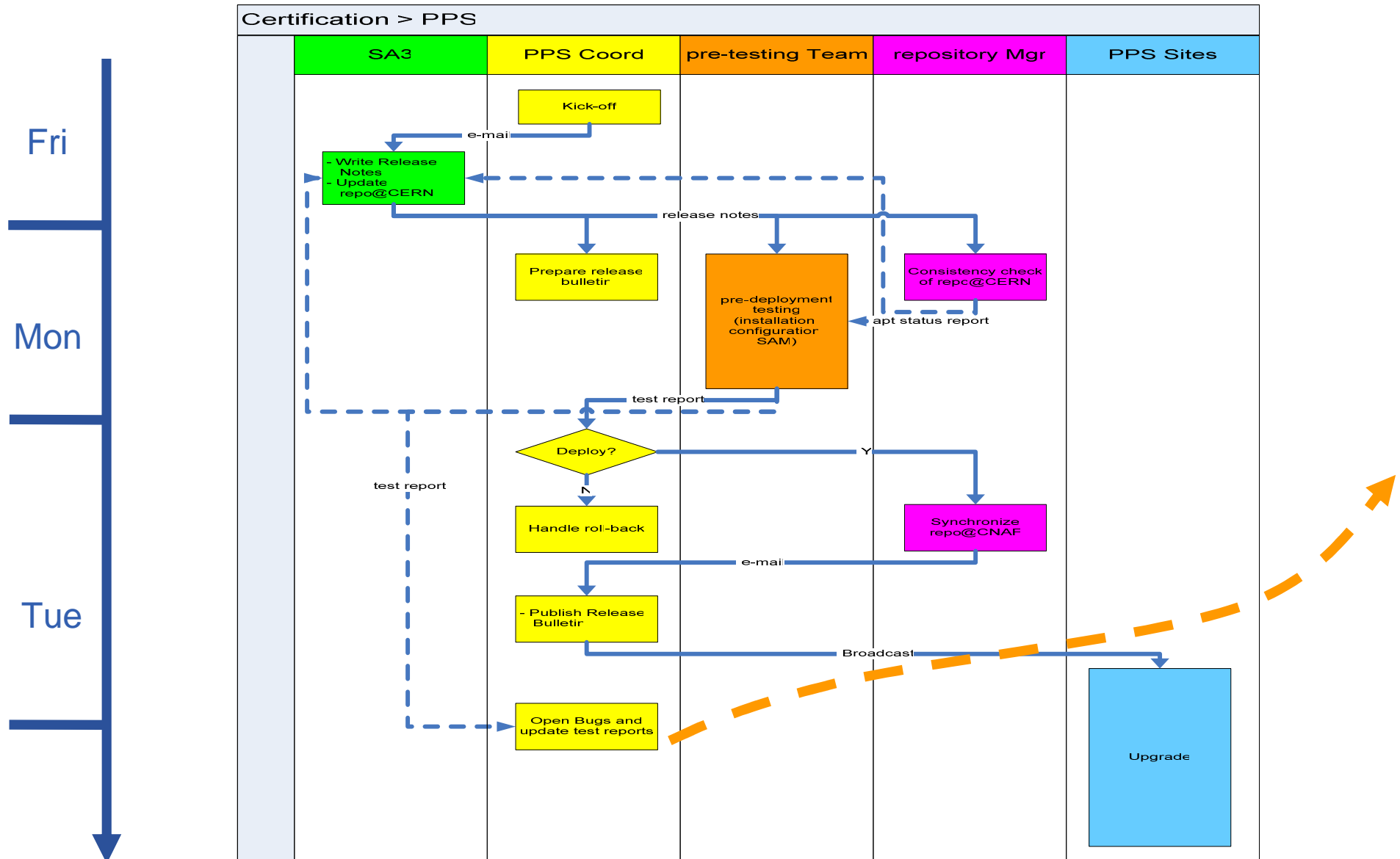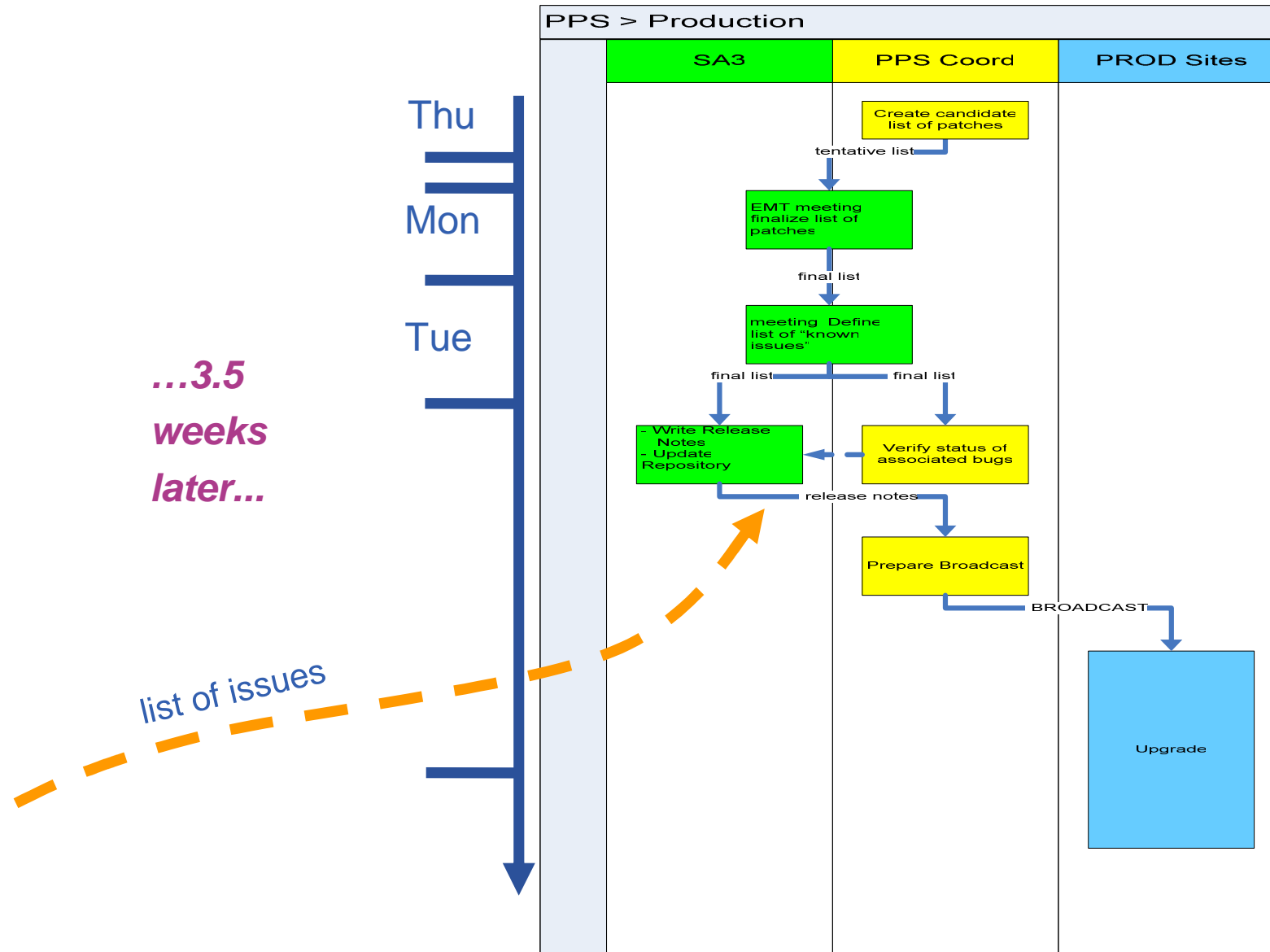**Enabling Grids for E-sciencE**

## Middleware Lifecycle

## Special releases in Pre-Production

- **Urgent**
  - Patches are released at same time both in production and PPS.
- **High-priority**
  - Patches are released directly in production.
- **Blue**
  - When appears a new important feature or fix for the user community a shortening pre-production phase is released.

## Standard release procedure

- **One week in PPS**
  - Each new gLite service is tested in Pre-Production for a given amount of time before it is delivered to production.

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Certification > PPS

| | SA3 | PPS Coord | pre-testing Team | repository Mgr | PPS Sites |

**Fri**

Kick-off

e-mail

- Write Release Notes
- Update repo@CERN

release notes

Prepare release bulletin

pre-deployment testing (installation configuration SAM)

Consistency check of repo@CERN

apt status report

**Mon**

test report

Deploy? — Y

Handle roll-back

Synchronize repo@CNAF

e-mail

**Tue**

- Publish Release Bulletin

Open Bugs and update test reports

Broadcast

Upgrade

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Thu

Mon

Tue

*…3.5 weeks later...*

list of issues

PPS > Production

| SA3 | PPS Coord | PROD Sites |
|---|---|---|

Create candidate list of patches

tentative list

EMT meeting finalize list of patches

final list

meeting Define list of "known issues"

final list          final list

- Write Release Notes
- Update Repository

Verify status of associated bugs

release notes

Prepare Broadcast

BROADCAST

Upgrade

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## LCG Savannah development portal

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## Global Grid User Support (GGUS)

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Standard Release Schedule
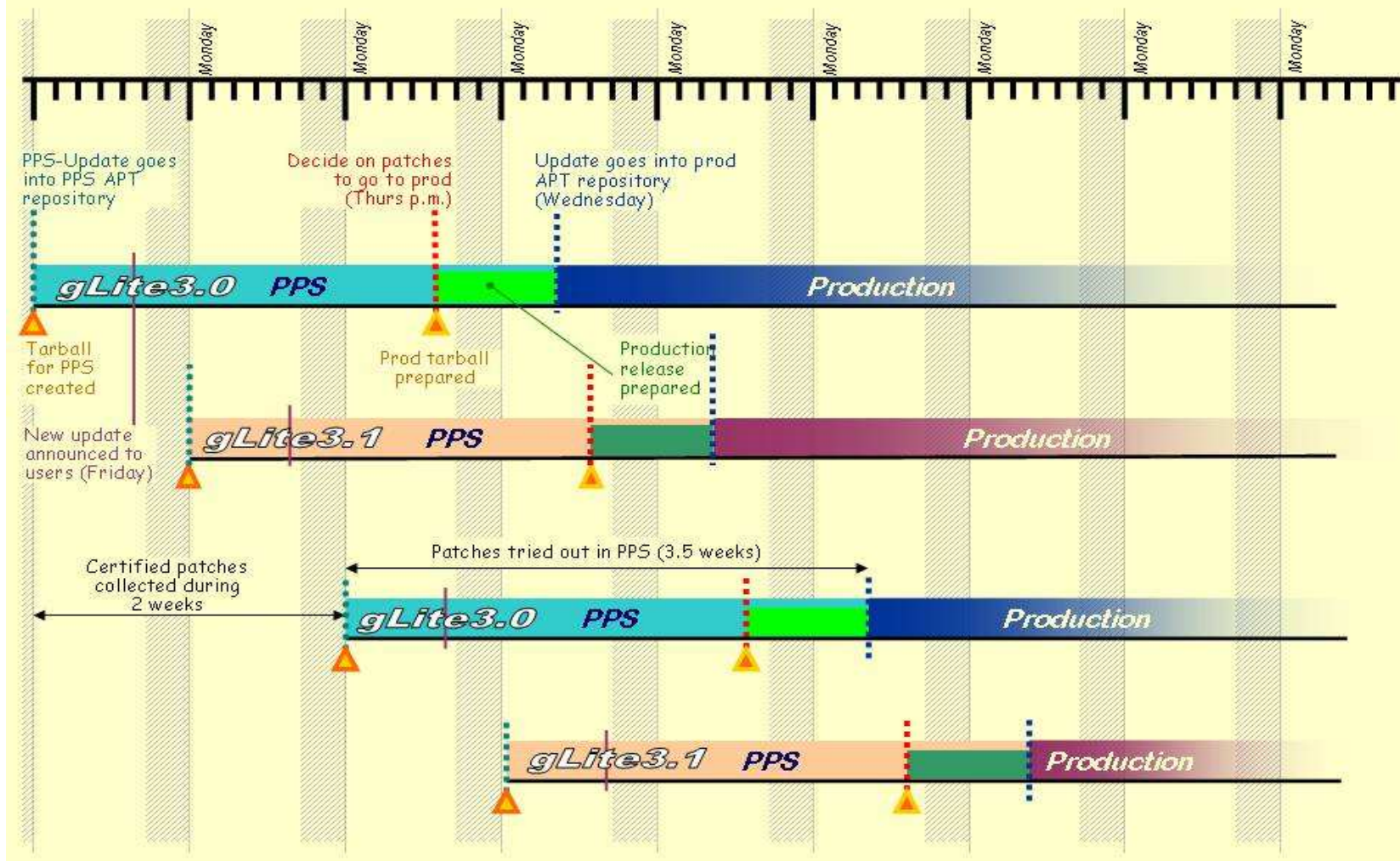
## Available Resources

- 30 sites
- ~ 50 CEs
- ~ 16 WMS
- 4 FTS

## PPS Gridice monitoring tool

| General | Gris | Host | Job | Charts | Network | | | | | | | XML |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

Overview | Computing | Management | Downtime

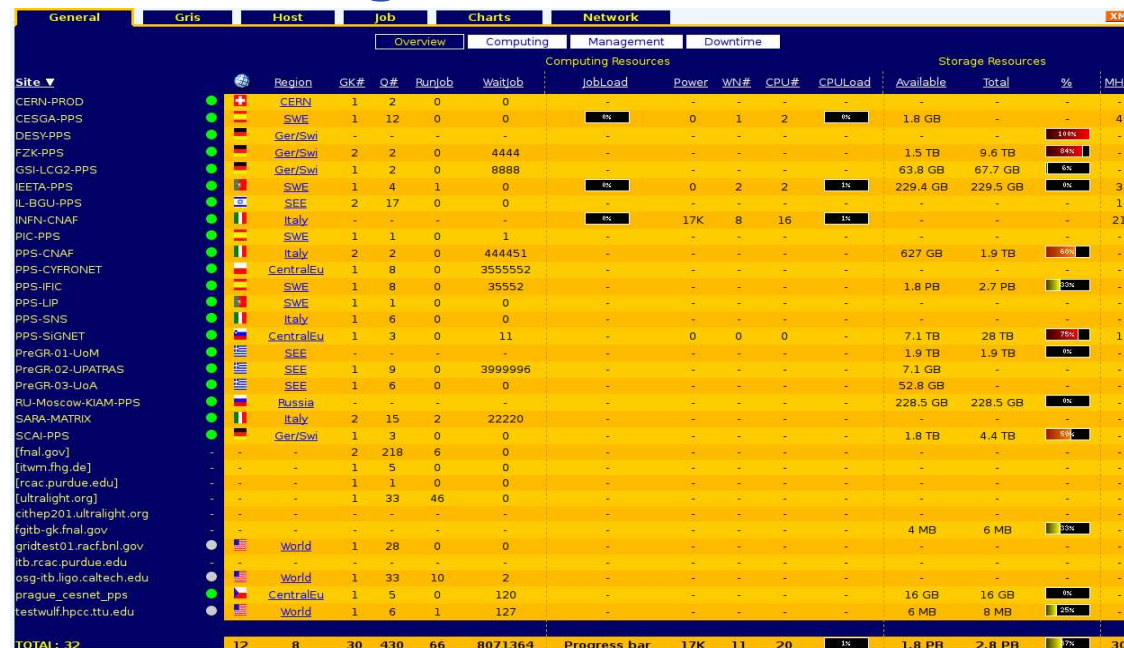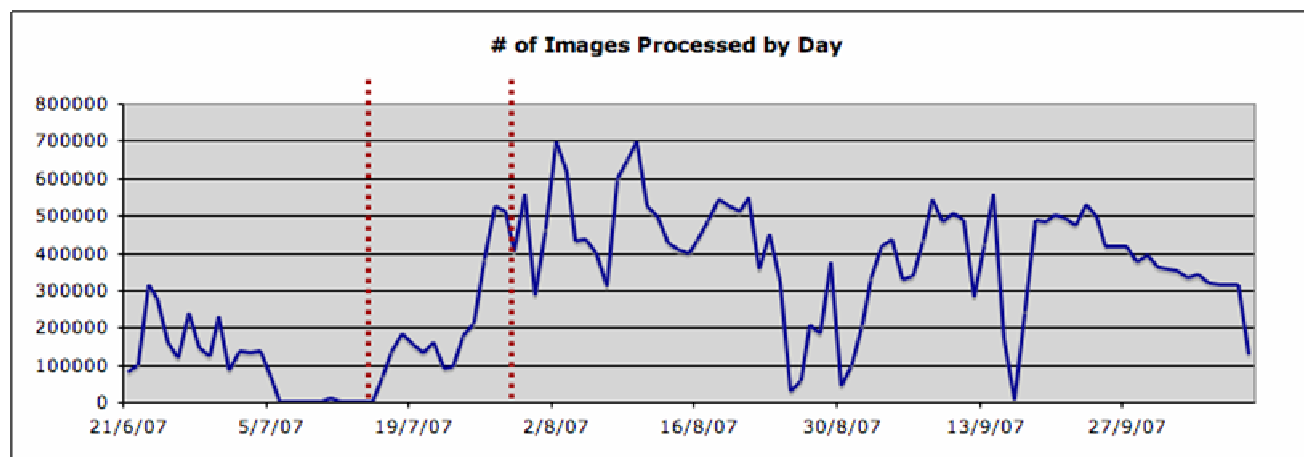| Site ▼ | | | Region | GK# | Q# | RunJob | WaitJob | JobLoad | Power | WN# | CPU# | CPULoad | Available | Total | % | MH# |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CERN-PROD | ● | 🇨🇭 | CERN | 1 | 2 | 0 | 0 | - | - | - | - | - | - | - | - | - |
| CESGA-PPS | ● | | SWE | 1 | 12 | 0 | 0 | 0% | 0 | 1 | 2 | 0% | 1.8 GB | - | - | 4 |
| DESY-PPS | ● | 🇩🇪 | Ger/Swi | - | - | - | - | - | - | - | - | - | - | - | 100% | - |
| FZK-PPS | ● | 🇩🇪 | Ger/Swi | 2 | 2 | 0 | 4444 | - | - | - | - | - | 1.5 TB | 9.6 TB | 84% | - |
| GSI-LCG2-PPS | ● | 🇩🇪 | Ger/Swi | 1 | 2 | 0 | 8888 | - | - | - | - | - | 63.8 GB | 67.7 GB | 6% | - |
| IEETA-PPS | ● | 🇵🇹 | SWE | 1 | 4 | 1 | 0 | 0% | 0 | 2 | 2 | 1% | 229.4 GB | 229.5 GB | 0% | 3 |
| IL-BGU-PPS | ● | | SEE | 2 | 17 | 0 | 0 | - | - | - | - | - | - | - | - | 1 |
| INFN-CNAF | ● | 🇮🇹 | Italy | - | - | - | - | 0% | 17K | 8 | 16 | 1% | - | - | - | 21 |
| PIC-PPS | ● | | SWE | 1 | 1 | 0 | 1 | - | - | - | - | - | - | - | - | - |
| PPS-CNAF | ● | 🇮🇹 | Italy | 2 | 2 | 0 | 444451 | - | - | - | - | - | 627 GB | 1.9 TB | 60% | - |
| PPS-CYFRONET | ● | | CentralEu | 1 | 8 | 0 | 3555552 | - | - | - | - | - | - | - | - | - |
| PPS-IFIC | ● | | SWE | 1 | 8 | 0 | 35552 | - | - | - | - | - | 1.8 PB | 2.7 PB | 33% | - |
| PPS-LIP | ● | 🇵🇹 | SWE | 1 | 1 | 0 | 0 | - | - | - | - | - | - | - | - | - |
| PPS-SNS | ● | 🇮🇹 | Italy | 1 | 6 | 0 | 0 | - | - | - | - | - | - | - | - | - |
| PPS-SIGNET | ● | | CentralEu | 1 | 3 | 0 | 11 | - | 0 | 0 | 0 | - | 7.1 TB | 28 TB | 75% | 1 |
| PreGR-01-UoM | ● | | SEE | - | - | - | - | - | - | - | - | - | 1.9 TB | 1.9 TB | 0% | - |
| PreGR-02-UPATRAS | ● | | SEE | 1 | 9 | 0 | 3999996 | - | - | - | - | - | 7.1 GB | - | - | - |
| PreGR-03-UoA | ● | | SEE | 1 | 6 | 0 | 0 | - | - | - | - | - | 52.8 GB | - | - | - |
| RU-Moscow-KIAM-PPS | ● | | Russia | - | - | - | - | - | - | - | - | - | 228.5 GB | 228.5 GB | 0% | - |
| SARA-MATRIX | ● | 🇮🇹 | Italy | 2 | 15 | 2 | 22220 | - | - | - | - | - | - | - | - | - |
| SCAI-PPS | ● | 🇩🇪 | Ger/Swi | 1 | 3 | 0 | 0 | - | - | - | - | - | 1.8 TB | 4.4 TB | 50% | - |
| [fnal.gov] | - | | | 2 | 218 | 6 | 0 | - | - | - | - | - | - | - | - | - |
| [itwm.fhg.de] | - | | | 1 | 5 | 0 | 0 | - | - | - | - | - | - | - | - | - |
| [rcac.purdue.edu] | - | | | 1 | 1 | 0 | 0 | - | - | - | - | - | - | - | - | - |
| [ultralight.org] | - | | | 1 | 33 | 46 | 0 | - | - | - | - | - | - | - | - | - |
| cithep201.ultralight.org | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - |
| fgitb-gk.fnal.gov | - | | | - | - | - | - | - | - | - | - | - | 4 MB | 6 MB | 33% | - |
| gridtest01.racf.bnl.gov | ○ | 🇺🇸 | World | 1 | 28 | 0 | 0 | - | - | - | - | - | - | - | - | - |
| itb.rcac.purdue.edu | - | | | - | - | - | - | - | - | - | - | - | - | - | - | - |
| osg-itb.ligo.caltech.edu | ○ | 🇺🇸 | World | 1 | 33 | 10 | 2 | - | - | - | - | - | - | - | - | - |
| prague_cesnet_pps | ● | | CentralEu | 1 | 5 | 0 | 120 | - | - | - | - | - | 16 GB | 16 GB | 0% | - |
| testwulf.hpcc.ttu.edu | ○ | 🇺🇸 | World | 1 | 6 | 1 | 127 | - | - | - | - | - | 6 MB | 8 MB | 25% | - |
| TOTAL: 32 | 12 | 8 | 30 | 430 | 66 | 8071364 | Progress bar | 17K | 11 | 20 | 1% | 1.8 PB | 2.8 PB | 7% | 30 | |

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## VOs in Pre-Production

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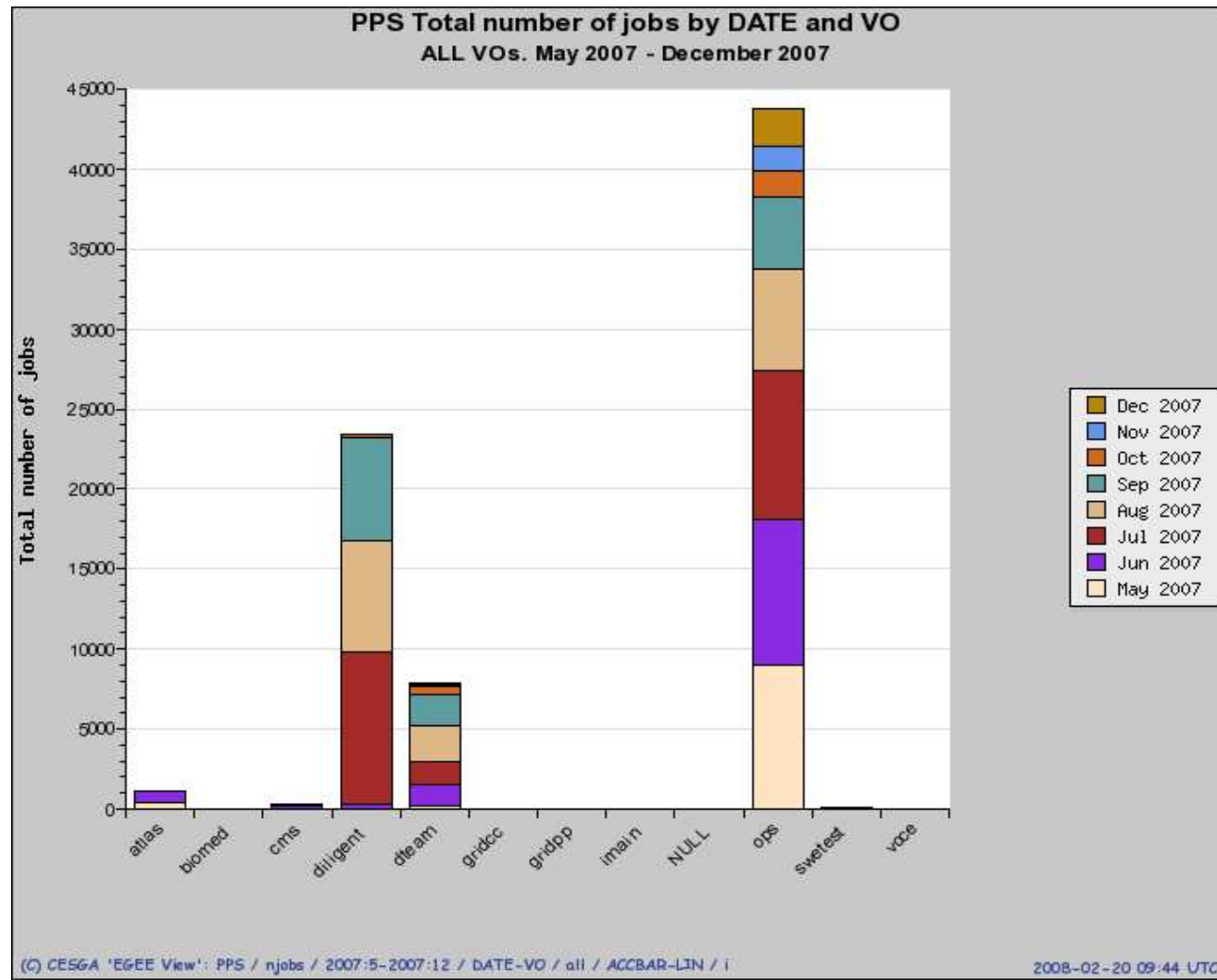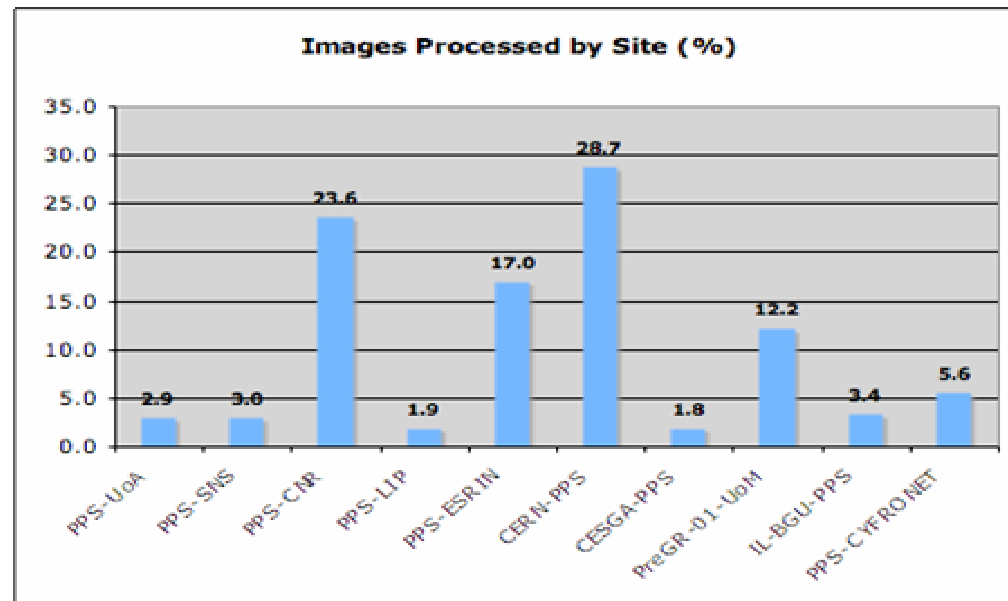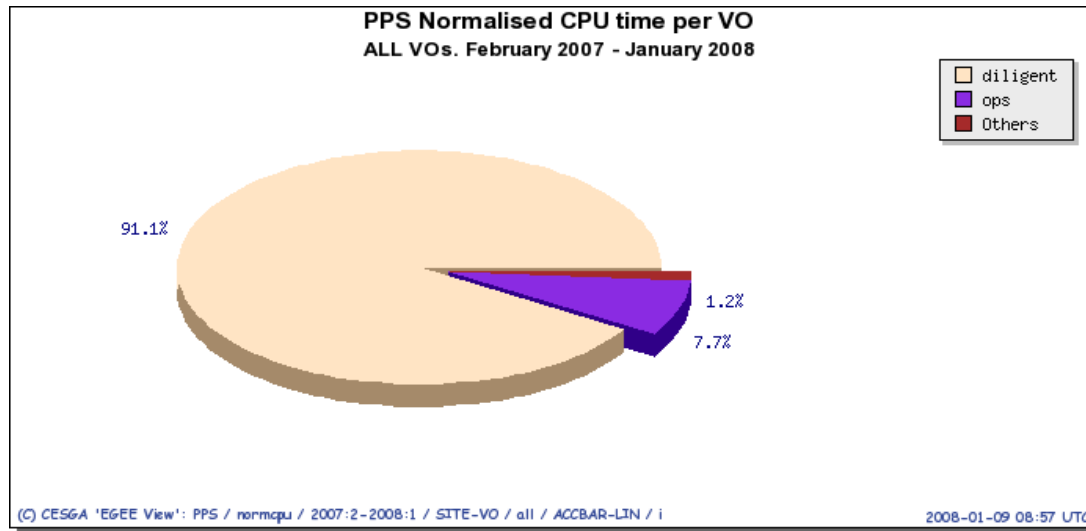
## Diligent VO

- In Diligent data challenges one of the worlds largest collections of multimedia metadata for research purposes was created.

- 1000 jobs were submitted per day to PPS sites.

- Each job processes 1000 images.

- 37 million images were processed in 16 weeks.



# of Images Processed by Day

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**PPS Normalised CPU time per VO**
ALL VOs. February 2007 - January 2008

Legend:
- diligent
- ops
- Others

91.1%
1.2%
7.7%

(C) CESGA 'EGEE View': PPS / normcpu / 2007:2-2008:1 / SITE-VO / all / ACCBAR-LIN / i

2008-01-09 08:57 UTC



**Images Processed by Site (%)**

- PPS-UoA: 2.9
- PPS-SNS: 3.0
- PPS-CNR: 23.6
- PPS-LIP: 1.9
- PPS-ESRIN: 17.0
- CERN-PPS: 28.7
- CESGA-PPS: 1.8
- PreGR-01-UoM: 12.2
- IL-BGU-PPS: 3.4
- PPS-CYFRONET: 5.6

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## How to join to PPS

- USERS
    - They must belong to an existing organization which is supported on PPS.
    - Install their own UI or use an existing one.
    - Register with the "Pre-Production users" mailing list project-eu-egee-users@cern.ch
- VOs
    - New VOs must contact pps-support@cern.ch and experts will help them to find the best way to profit of the Pre-Production service.
    - More information on how to start a VO in PPS can be found in: http://pps-public-wiki.egee.cesga.es/cgi-bin/moin.cgi/New_Vo

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## Conclusions and Future Work

- At this moment PPS service is in re-organisation process.

- Principal aims are:
  - Allow VOs to use the PPS for testing.
  - Make more effective usage of resources.

- PPS updates will be service oriented instead of monolithic updates.

## Pre-Production Web Page
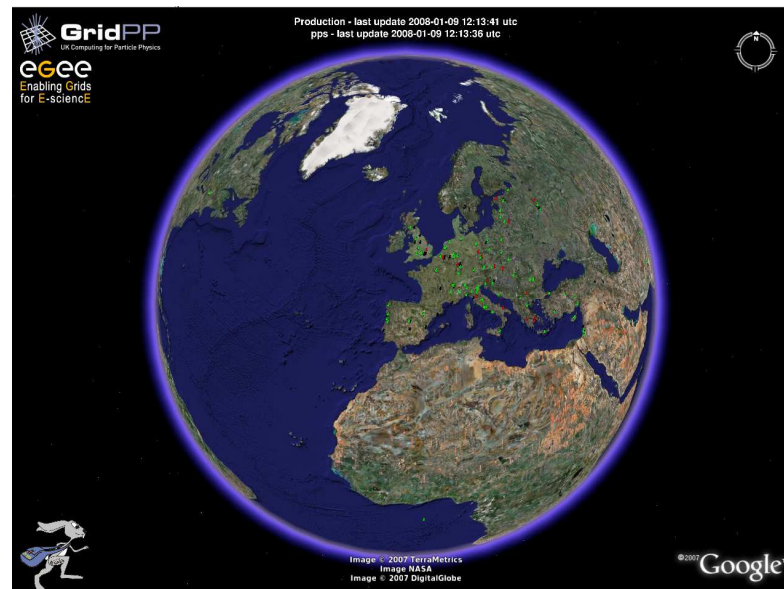
- http://egee-pre-production-service.web.cern.ch/egee-pre-production-service

## Pre-Production Accounting Portal

- http://www3.egee.cesga.es/gridsite/accounting/CEGA/pps_view.html

## PPS Wiki

- http://pps-public-wiki.egee.cesga.es

## Diligent Web Page

- http://www.diligentproject.org

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# Thank you!

## And remember...



Use PPS service with care