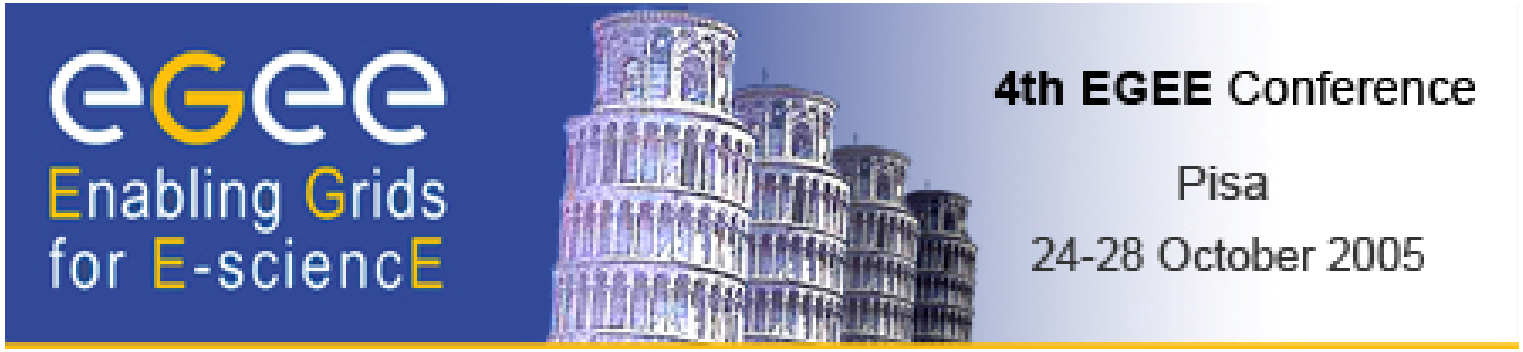
Middleware summary

Claudio Grandi

INFN Bologna



JRA1 management

- **Change of JRA1 management on November 1st**
- **New Activity Manager: Claudio Grandi**
  - Previously in CMS experiment @ LHC
    - Grid Integration Coordinator 2000-2004
  - Started using grid in 1999 (test of data productions with Globus)
  - Member of EU DataGrid (WP8) and then EGEE (NA4)

- **Many thanks to Frédéric and Erwin for the job done**
  - I'll rely on their help in the next months
  - They'll do most of the work for the EU review!

Summary

by F.Hemmer, 24/10

- **gLite releases have been produced**
  - Tested, Documented, with Installation and Release notes
  - Subsystems used on
    - Service Challenges
    - Pre-Production Services
    - Production Service
  - And by other communities (e.g. DILIGENT)

- **gLite processes are in place**
  - Closely monitored by various bodies
  - Hiding many technical problems to the end user

- **gLite is more than just software, it also about**
  - Processes, Tools and Documentation
  - International Collaboration

Biomed Short Deadline Jobs (25/10)

- **On Tuesday the Biomed group presented to JRA1 a case for Short Deadline Jobs (SDJ)**
  - few minutes or less
  - time in RB not negligible
  - time in queues too long (even on short queues)
- **Prototype based on dedicated MAUI/PBS queues that use the *virtual CPU's* not used by normal jobs**
  - SDJ's will jump in immediately
  - no resource wasted because of this reservation
  - will publish such queues on the CE Glue schema
  - will identify how to create a special fast path in the RB for SDJ's
- **Working group created: coord. Cecile Germain-Renaud**
- **See: http://egee-na4.ct.infn.it/wiki/index.php/ShortJobs**

External projects integration session

Diligent

A **DI**gital **L**ibrary **I**nfrastructure on **G**rid **EN**abled **T**echnology

SEE-GRID

South Eastern European GRid-enabled eInfrastructure Development

Many (new) EU projects (will) use gLite middleware

ETICS

ISSeG

EUMEDGRID [empowering eScience across the Mediterranean]

Baltic Grid

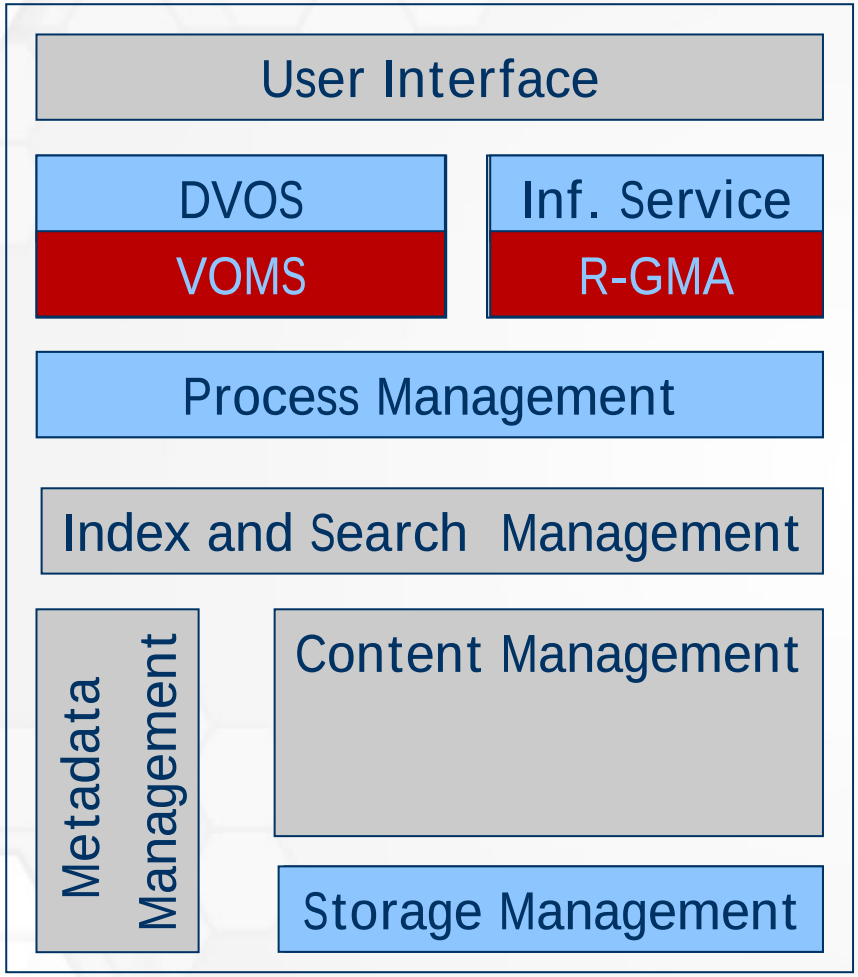
EUChinaGRID

e-IRGSP

ICEAGE

by P.Pagano, 25/10

gLite Experimentation



The experimental DILIGENT DL exploits gLite storing and processing on demand the stored products on the GRID. This allows to produce usable end-user manifestations upon requests.

gLite JM

gLite WMS

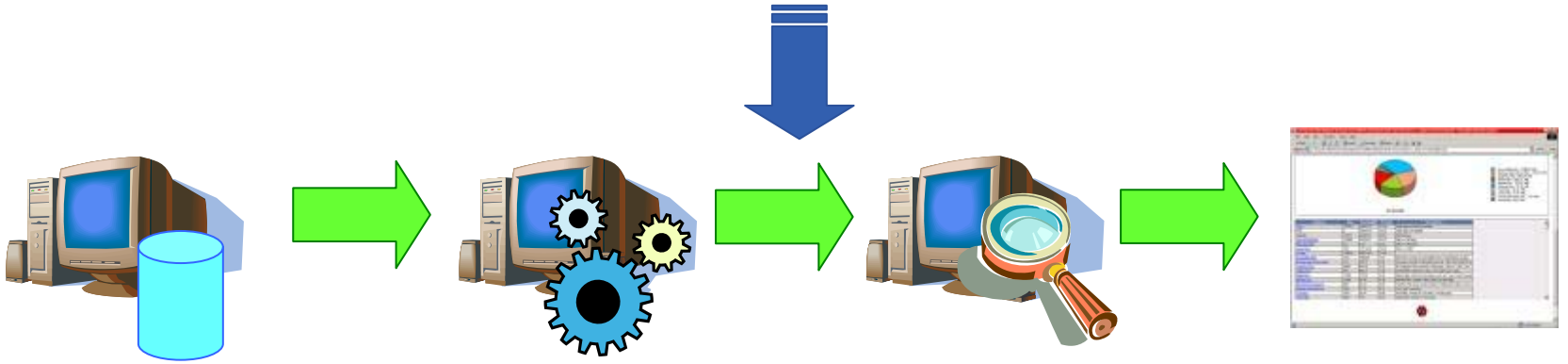
gLite StorageBroker

gLite SE

I - Operations

CLI / Web Portal

by A.DiMeglio, 25/10



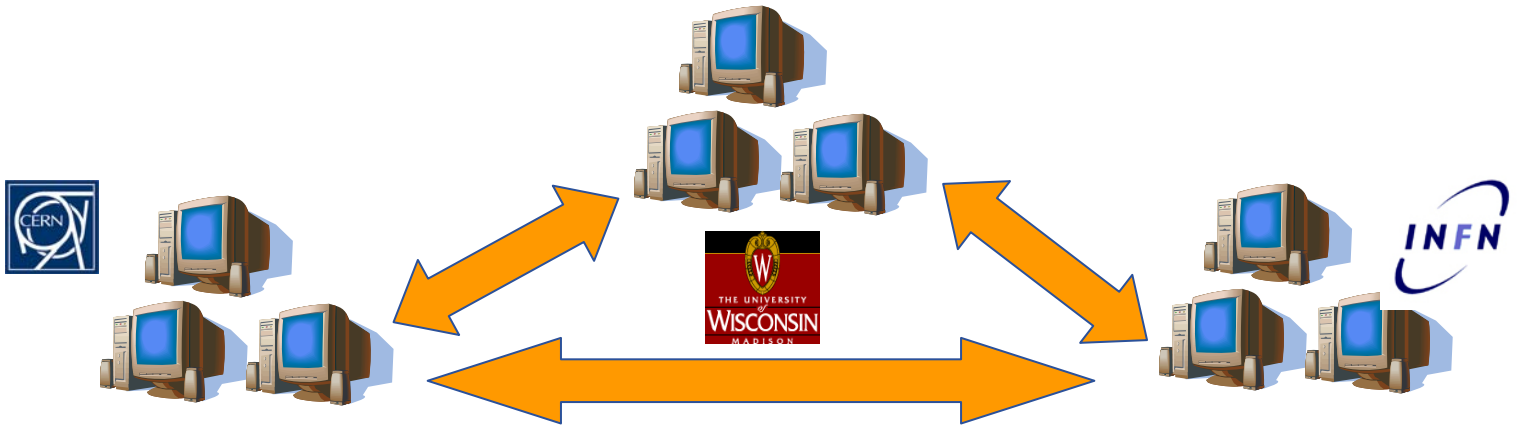
Software Configuration and Repository

Build System

Distributed Test System

Reporting

Services



Infrastructure

Job Statistics - Conclusion

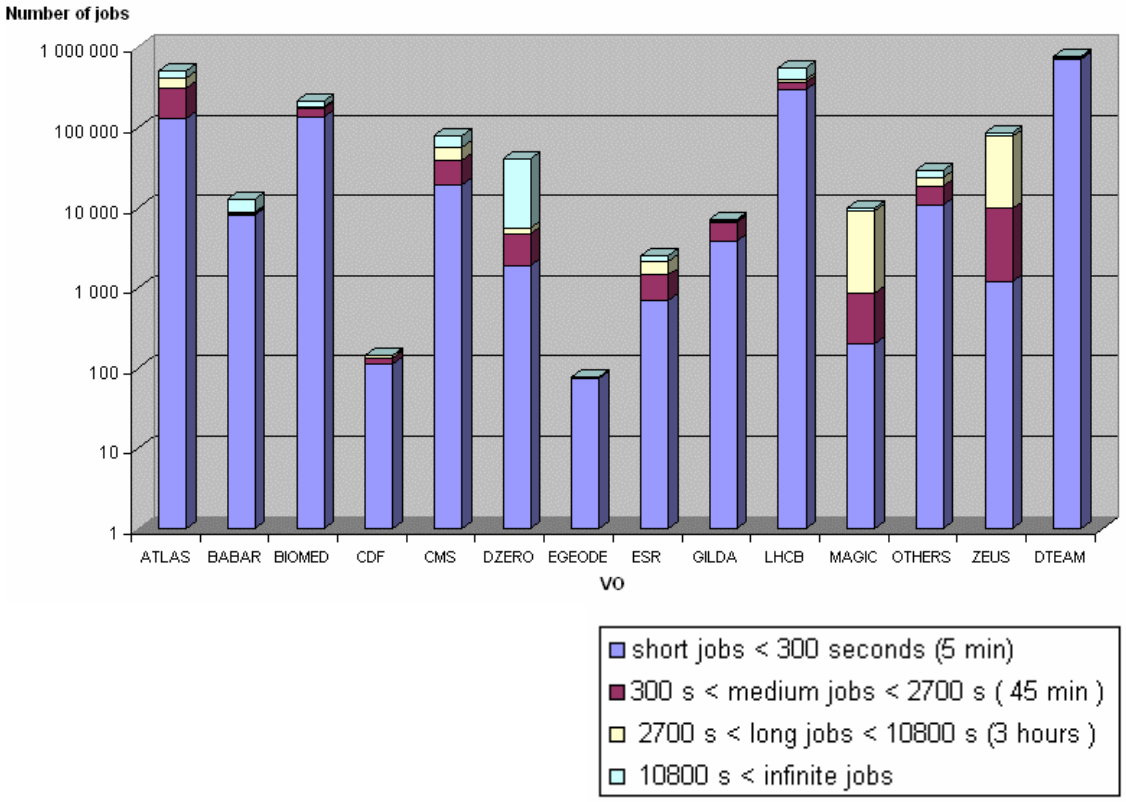
- **Summary of the current situation** *by G.Zaquine, 25/10*
  - Various tools for various purposes (statistics, monitoring, accounting). Each tool with advantages and inconvenient depending where input data come from:
    - Input from RBs (JRA2 RB stats, Job Provenance stats): do not take into account jobs not submitted through RBs. About 90% RBs are collected
    - Input from CEs (APEL): do not take into account what is happened before CE
    - DGAS will offer both. About 90% sites are collected
  - Data Challenge and end users statistics: Each DC has to build it own statistics tool
    - No basic solution currently even if JRA2 statistics helped Wisdom Biomed DC
    - JDL “Application Tag” will help

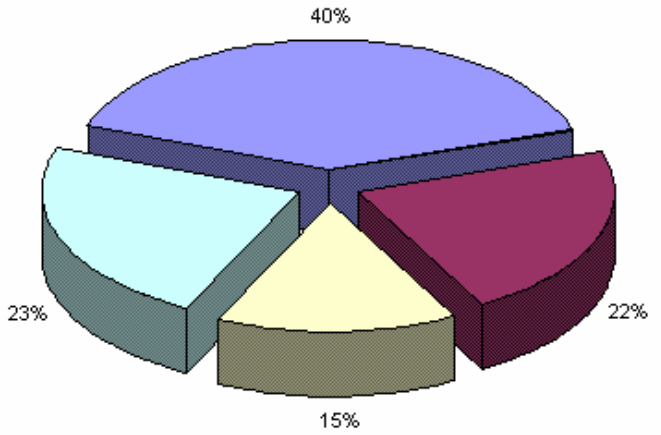
- **Next steps**
  - Better understand job throughput distribution between jobs using RBs from other jobs submission mechanisms (direct access to the CE, Dirac…).
    - No basic solution currently
  - Common work in order to provide common tool

Duration

by G.Romier, 25/10

- **Duration distribution**
  - the duration calculation is possible for successful jobs and when the run time-stamp and the done time-stamp on the CE are both available.

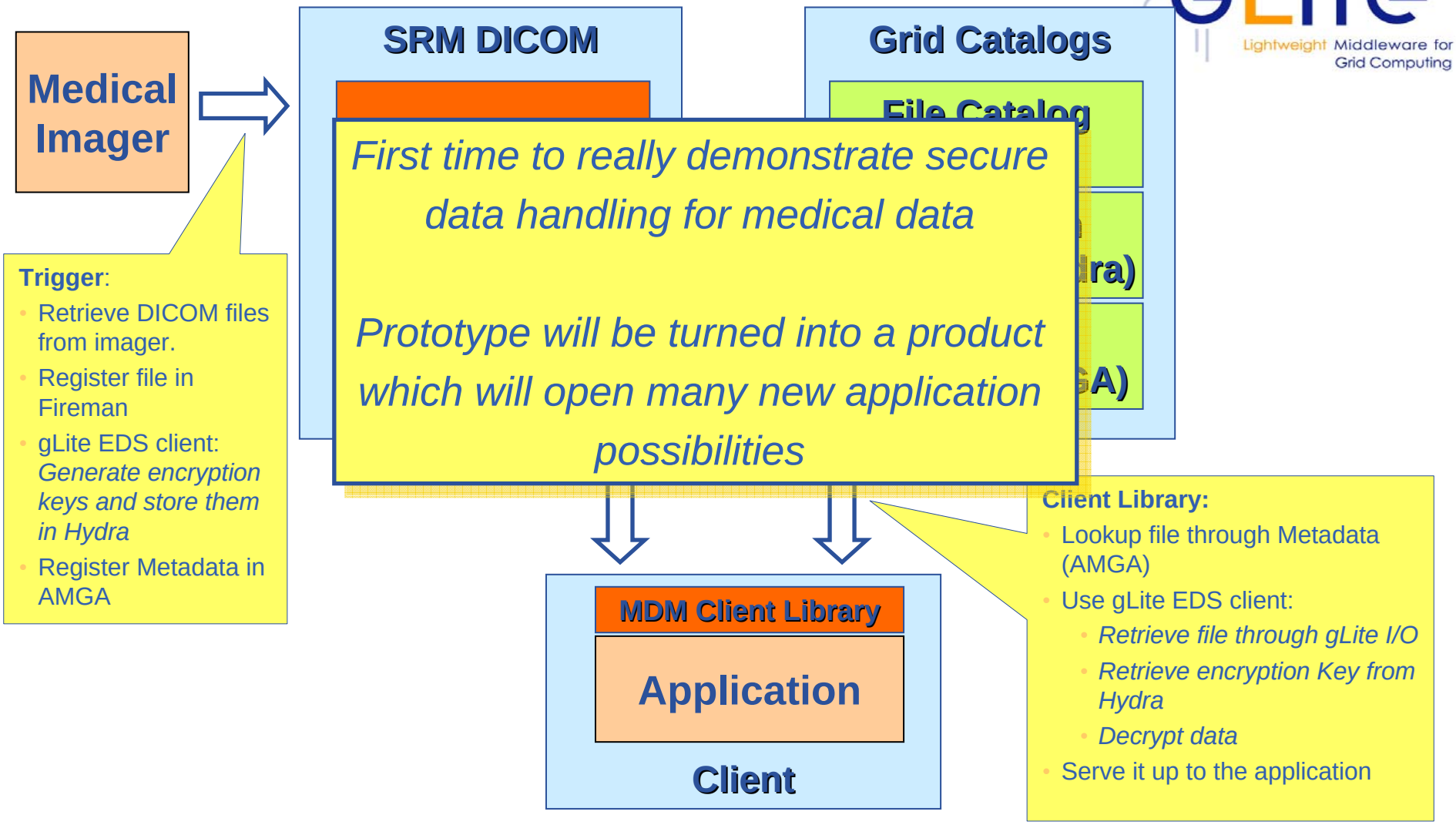




Job duration distribution without Dteam

Medical Data Management Demo

SRM/DICOM demo, 26/10



PPS emoticons

- In some cases the release does not reflect the proposed architecture (e.g. the pull mode, use of BDII)
- User Guide: Once a new server is installed and configured it is really painful to understand how to use it, even for basic tests
- Error Messages: Often not useful, sometimes misleading
- WMS Performance decays (observed with 1.2, 1.3, 1.4)
- VO enabling and handling on the system should be made easier
- The upgrade procedure is officially not supported but in principle the tools are there (sometimes not working mostly due to rpm names changing)
- Quite a number of failures mostly due to configuration errors. SFT should make things better
- Log files are located in a single place. This makes debugging easier
- Installation Documentation: Release Notes, Installation documents and XML templates are of very high quality
- Support: JRA1 very reactive and effective on both mailing lists (discuss and PPS)
- People in PPS starts getting used to XML and python scripts. After the first impact and it is not perceived anymore as "difficult" by default.

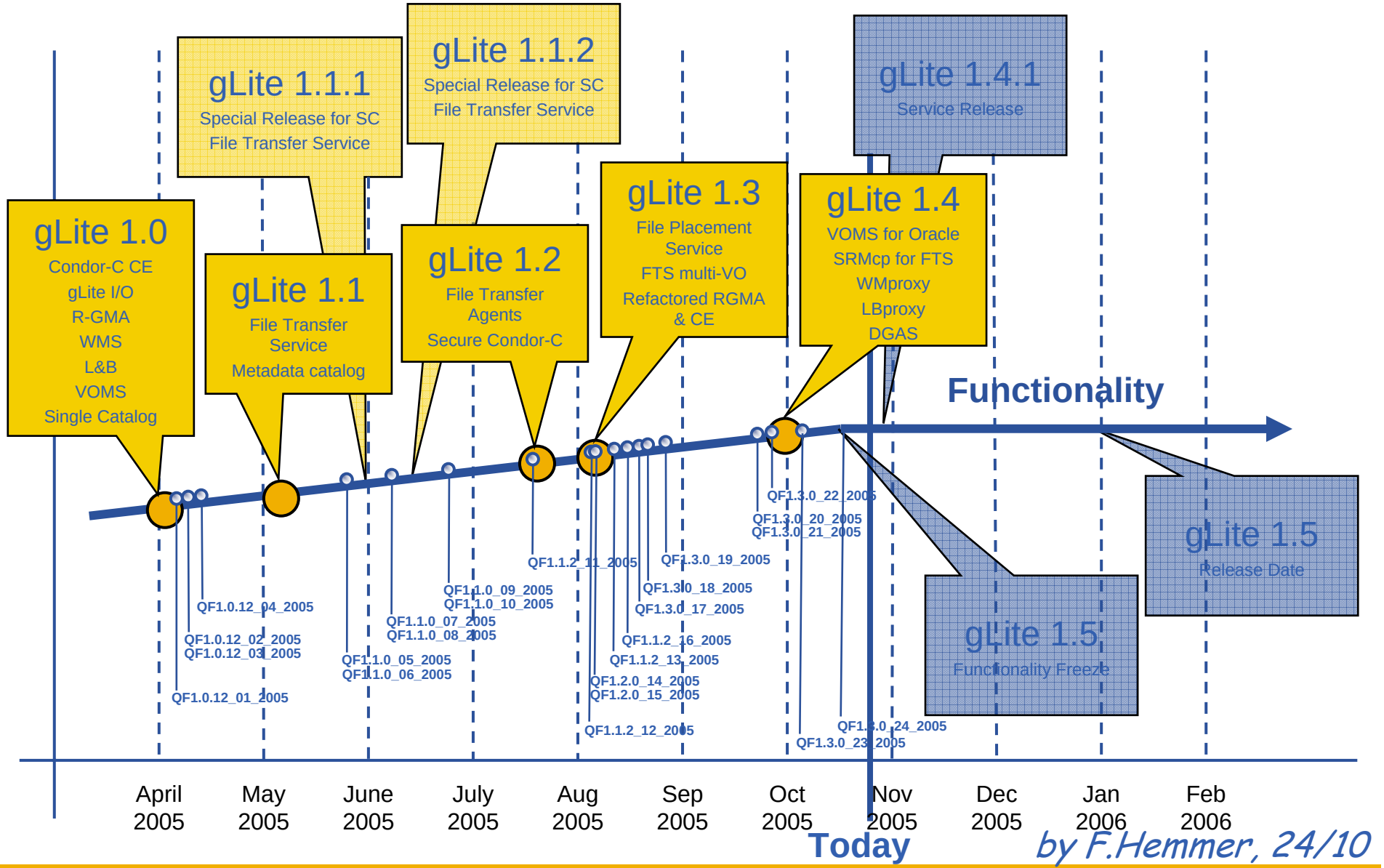
by A.Retico, 27/10

PPS: sites summary

- The PPS wiki pages and the mailing lists are very useful to get information and support
- Documentation is good and getting better
- Need SFT, accounting, and more coordinated upgrade procedure (some sites fail during upgrade without notice)
- Too many configuration parameters and some of them are not well documented.
- More testing is needed before releasing a new version

- The pre-production service should reflect the production service: same middleware, different deployment scenarios, use of same procedures and tools

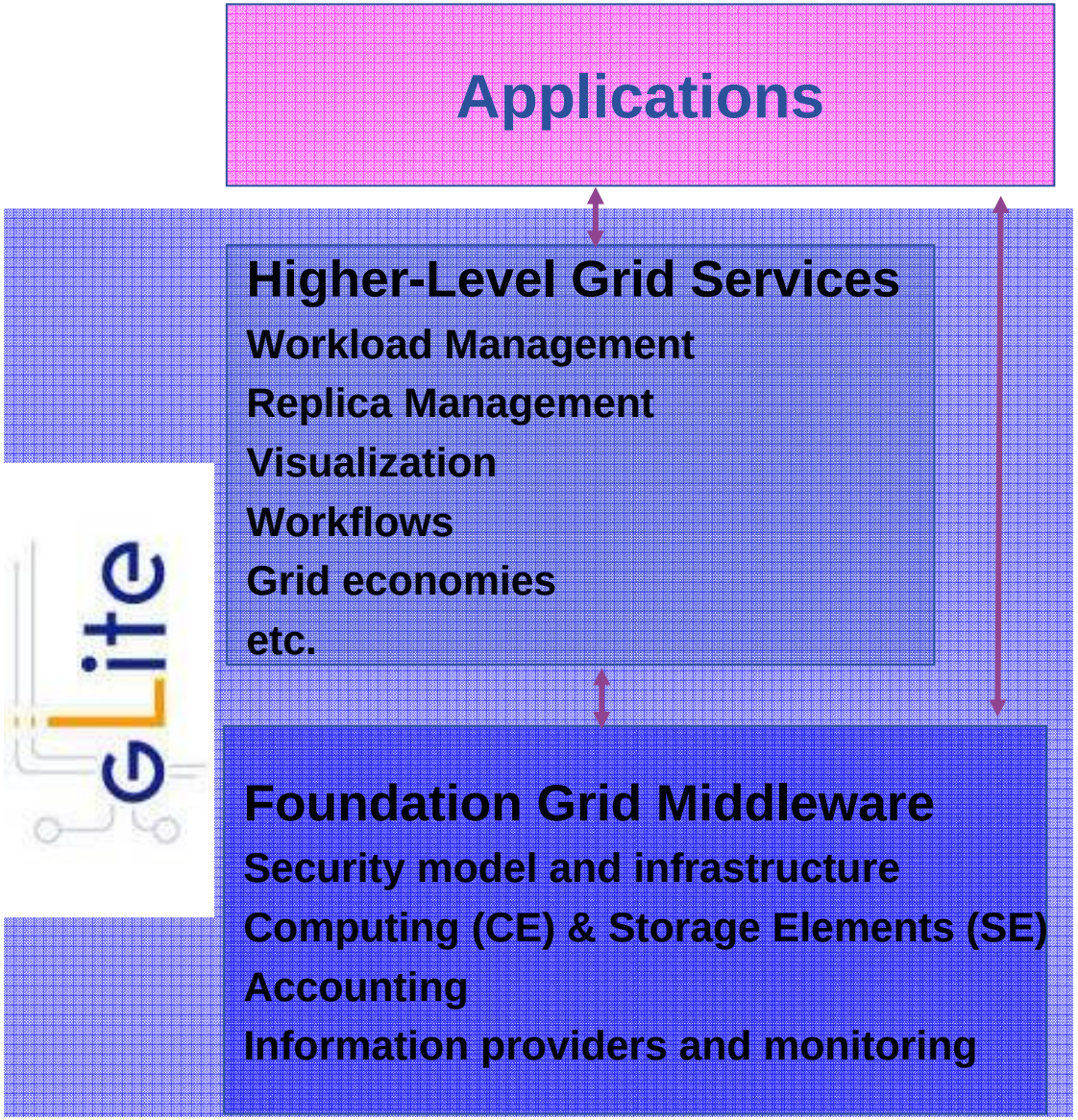
gLite Releases and Planning



by F.Hemmer, 24/10

Middleware in EGEE-II

by R.Jones, 24/10



- Provide specific solutions for supported applications
- Host services from other projects
- More rapid changes than Foundation Grid Middleware
- Deployed as application software using procedure provided by grid operations

- Application independent
- Evaluate/adhere to new stds
- Emphasis on robustness/stability over new functionality
- Deployed as a software distribution by grid operations