



Enabling Grids for E-scienceE

Upcoming Releases

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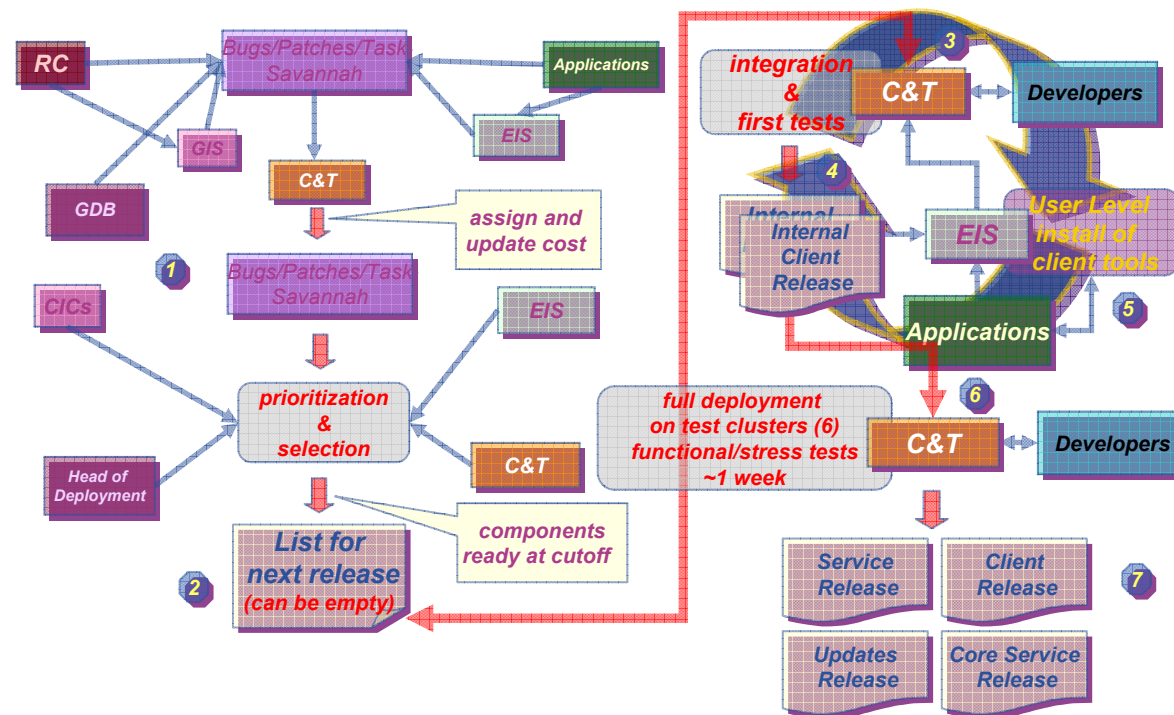
15th June 2005

www.eu-egee.org

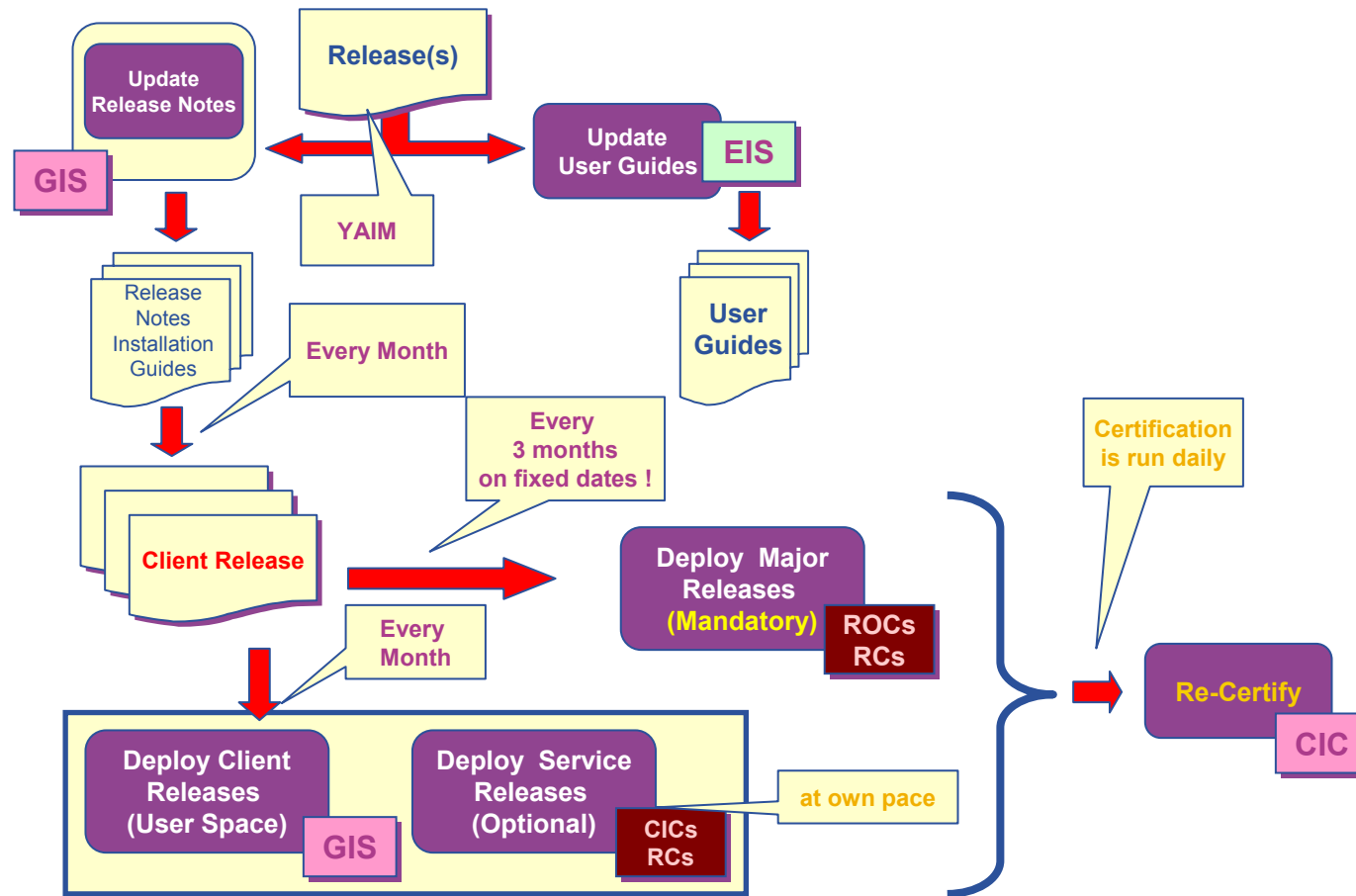


- **The last release**
 - LCG-2_4_0 experience
- **The SC3 release**
 - What will be in it?
 - Who will be affected?
 - When?
 - How will we call it?
- **The “1st of July” release**
 - Components
 - Open Questions
- **July ----> October**
 - Components,

- New process for major release was used (3 monthly fixed release)
 - All new software via bug tracking
 - Review of components and priorities at a given date
 - Integration and testing
 - Freeze of the candidate component list at a given date
 - Release at a given date (to allow planning)



- The deployment bit...
 - Major releases have been expected to be installed after 3 weeks



- **Reality:**

- Many bug fixes (Savannah)
- Some new components (LFC, DPM, BDII extensions)
 - Not all via Savannah (but most)
- List closed on fixed day, but prioritization not formal
 - EIS and deployment team
- Simple webpage to trace progress (lightweight)

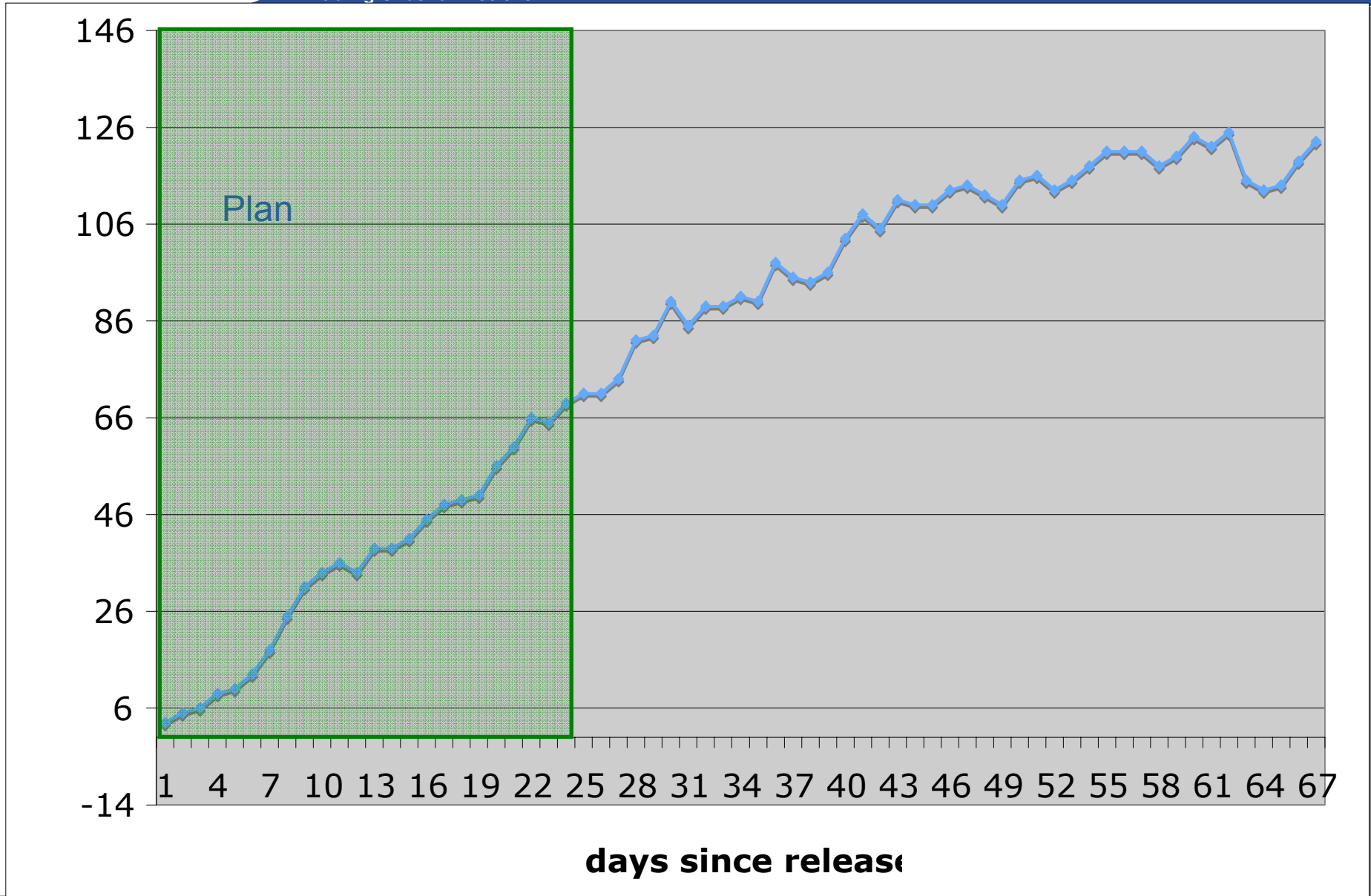
Component	Status	Open	status24.03	status 30.03	Who?	Priority	%done
APEL	a new release has been given to us on March 22nd.	check the status of LSF, Tests	50% Thorsten next week (lsf not tested)	Thorsten not reported, ready for release (lsf not ready check that it doesn't do any harm, works with new R-GMA)	Laurence	NonCritical	
java security	- the current version 1.4.2_04 has some security issues - we have to stop distributing JAVA Louis has found a solution for both	SUN's 1.4.2_07 has md5 checksum errors (Louis) The strange version string creates conflicts with using >= We need a bit of documentation which will come with this	solved, 5 lines to download and install need to be written. We need to add it into the documentation. Version has to be clarified	documentation fix done	Louis	NonCritical	
R-GMA	Test activities by Piotr, Min and independent by Di and Louis on the testbeds	Check that we all have used the same version	Checked and the version is the one wanted. 100%	Config changes (done), now discovered non-backward compatibility, now GIN works and GridICE too, WN job status reporter not working	Di, Laurence	Critical	
GridICE	There has been a new version on the 22nd with bug fixes for the info providers	Check that we get the right version	Di 7.x installed, SLC3 errata received and done 100%, but testing	Tested? Client not tested deeply YAIM has been adapted to avoid conflicts	Louis Di	NonCritical	
Relocatable_multi	Introduced new magic variable:	On the WNs a new script to	95%, some RPMs	DONE	Oliver.	Critical	

- **History:**

- March 24th Early Announcement and call for deployment testers
- April 1st detailed status, components, bugs fixed...
- April 4th sent to the first test sites: Gergely and Eygene
- April 6th released to the public

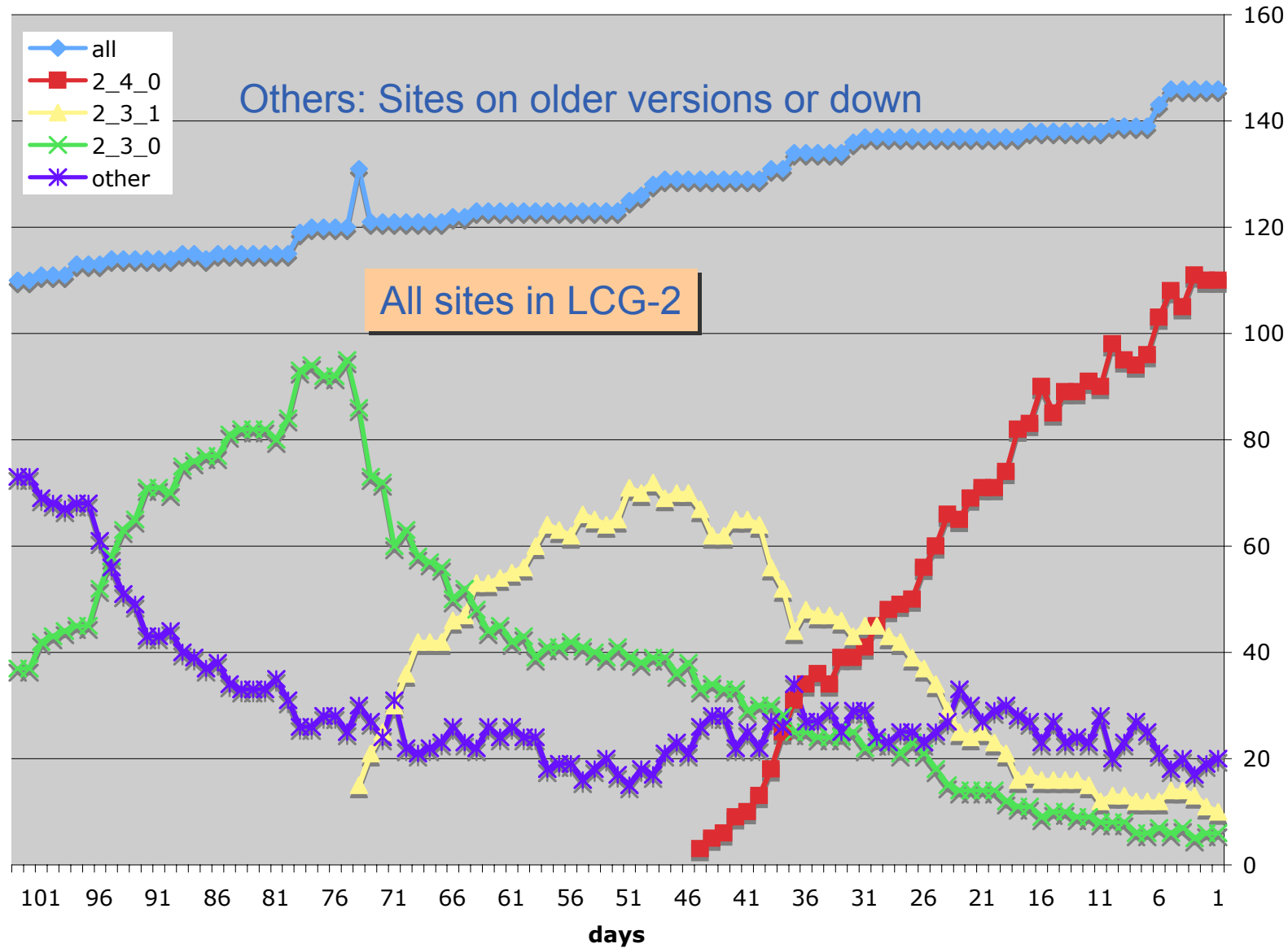
- Release was a bit late
 - Major components not ready
 - *Small, well identified problems, tempting not to wait 3 more months*

 - Underestimated the time for “final touches”
 - *Release notes*
 - *Deployment tests*
 - *Web page updates*



Version Change history

(a few weeks old)



- Lessons learned, feedback from the LCG Operations Workshop
 - Release definition non trivial with 3 months intervals
 - Component interdependencies (adding x without y ???)
 - **EGEE production service is a grid of independent federations**
 - Regional and site differences to serve the users (middleware, OS..)
 - More, early involvement of ROCs and sites required
 - Have to see and agree on the list of potential components very early
 - *Regional, site issues*
 - *Regular progress reports to the ROC managers (weekly)*
 - Early announcement of new releases needed
 - **At -3 weeks**
 - *complete list of components and changes*
 - Problematic, because this means certification has to be finished
 - **At -2 weeks**
 - *deployment tests at: **ROC-IT, ROC-SE, ROC-UK***
 - **Last week** to implement feedback and final touches
- **Impossible to implement for 1st of July!!!!**

- **Why?**
 - SC3 core components are needed to start
- **What?**
 - FTS client libs
 - FTS services
 - Updated versions of:
 - LFC
 - DPM 1.3.2 (secure rfio)
 - BDII (updated version supporting the new GLUE schema)
 - Some updated client libs. (gfal, lcg-util)
 - Some monitoring sensors (gridFTP)
- **When?**
 - Aimed at mid June
- **Who?**
 - Tier 1 centers and Tier 2 centers participating in SC3
 - FTS at T0 and T1s

- **How?**

- Components are getting ready quite late
- Keep the set as small as possible
 - not all bug fixes included
 - next release scheduled for 1st July
- Different configuration system for components from LCG2 and gLite
- Pragmatic approach
 - YAIM configuration for gLite client libs (UIs and WNs)
 - FTS service via gLite config scheme
 - *Small number of specific sites*
 - *Individual support for setup*

- **Status**

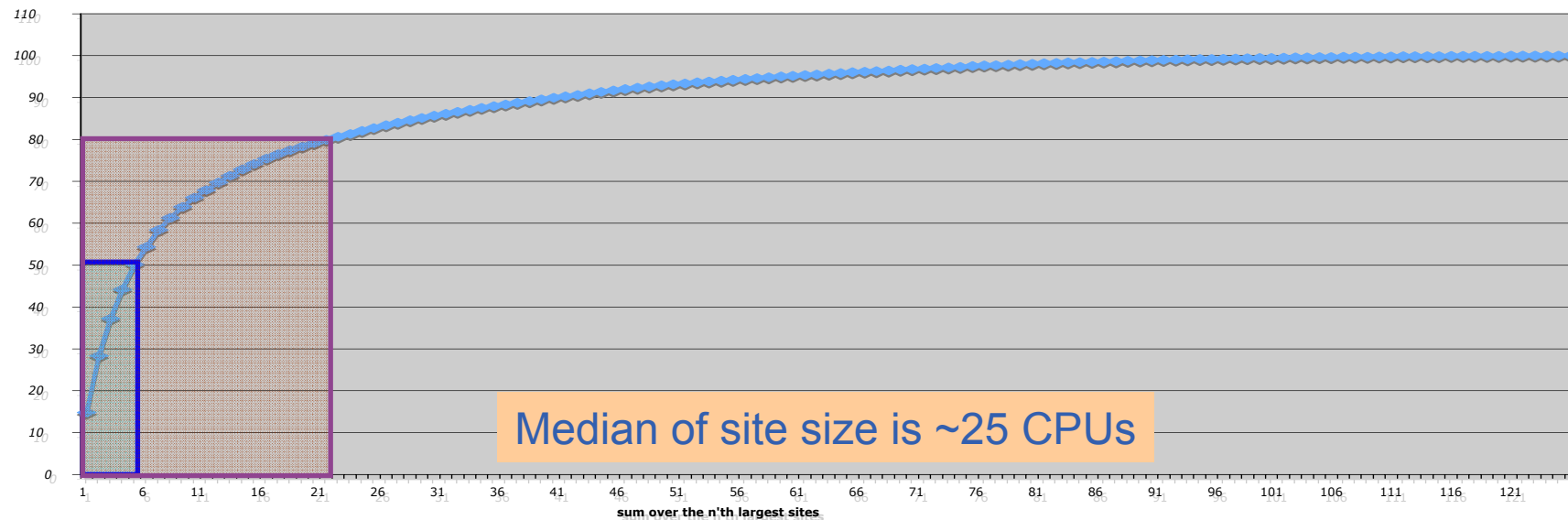
- Components ready for deployment test at 14th of June
- Release in the next 2 days
- Labeled as **LCG-2_5_0**

- **Next 3 monthly release is scheduled for 1st of July**
- **What?**
 - VOMs in line with gLite
 - R-GMA gLite version
 - Move to new GLUE schema
 - Backward compatible
 - Extensions for VO dependent values
 - Key value pairs for services
 - Pending bug fixes
 - Including YAIM
 - User level tools for extended job monitoring
 - Job status, stdout, stderr
 - Based on R-GMA
 - Released parallel with the middleware

- **Main Component: gLite WorkLoadManagement**
 - No July release without it!
- **Lightweight deployment scenario**
 - Central:
 - WLM services at CERN
 - *push and pull*
 - *Multiple instances*
 - *Allows fast deployment of improved releases*
 - *“Push” will use LCG-2 CEs and gLite CEs*
 - Uses BDII as an IS (until R-GMA is interfaced)
 - *Allows extra time to solve some of the packaging problems*
 - gLite and LCG2 config. cripts are internally synchronized
 - LCG2 AND gLite scripts NOT in sync.
 - Distributed:
 - Uis with gLite and LCG2 client libs
 - *Packed in LCG-2 style*
 - Sites can opt for adding a gLite CE to the LCG-2 CE
 - *Configuration via gLite config scripts*
 - *Step by step guide*

How many sites with gLite CEs?

- Resource distribution between sites
- For Push-Mode all LCG-2 CEs
 - Good scalability test
- For Pull-Mode 20 sites will give access to 80% of the resources



- **Name for the July release**
 - LCG-2_6_0
 - LCG-3_0_0
 - EGEE-X_X_X
- **Alternative:**
 - No tagged release
 - Tag and release a set of tested components
 - Publish interoperation matrix
 - has to be incomplete (finite resources for testing)
 - Sites: publish installed versions in the IS
 - Like: gLite-WLM-client.xxx , LCG-2-data-management-clients.yyyy
 - Users:
 - use JDL to define required stack
 - use Freedom of Choice of Resources tool to define usable sites

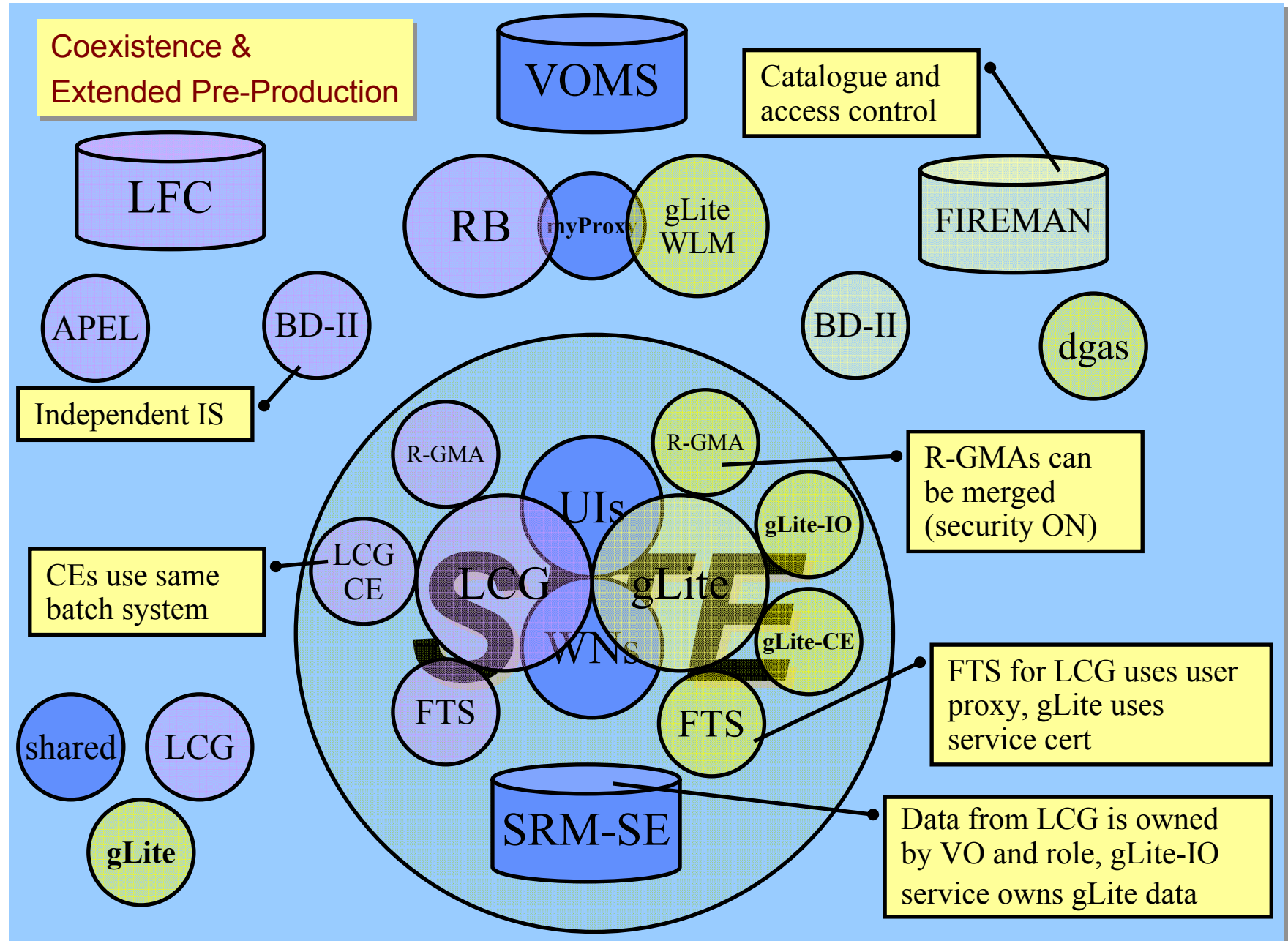
- For sites taking part in SC3
 - The SC3 relevant components will be **updated on demand**
 - We can't wait for a 3 months interval to fix problems
 - What role will the ROCs play in the SC3 deployment and operation?
 - *T0, T1, T2 <---> OMC, CIC, ROCs, RCs ????*
 - VO specific service nodes
 - Prototyping started based on LCG-2 CE
 - Support model not clear
 - *Quality of nodes*
 - Mirrored disks?
 - *Backup*
 - *OS maintenance*
 - *Security (responsibility)*
 - Deployment scenario for large and small sites (multiple VOs on one box?)
 - Local catalogues
 - clear understanding of function and implementation
 - *Replication, local files only, T0, T1s, T2s?.....*
 - As much of the list of requirements as possible
 - Need clear prioritization

- **For the regular October release**
- **Freeze of component list beginning of September**
- **More gLite components parallel with LCG-2 legacy components**
 - Complete data management
 - Fireman, gLite IO,
 - Switch to gLite WLM as the default setup
 - Depending on experience
- **Interoperation with OSG**
 - Job flow in both directions
 - Start with a few pilot sites
 - Operation, monitoring and support links
 - Shopping list agreed with OSG
 - CERN deployment and OSG operations work on this
 - Proof of concept done
- **Interoperation with Nordu Grid**
 - Jobs flow from LCG -> Nordu Grid
- **Decommissioning of the RLS service**
 - Has to be driven by the experiments

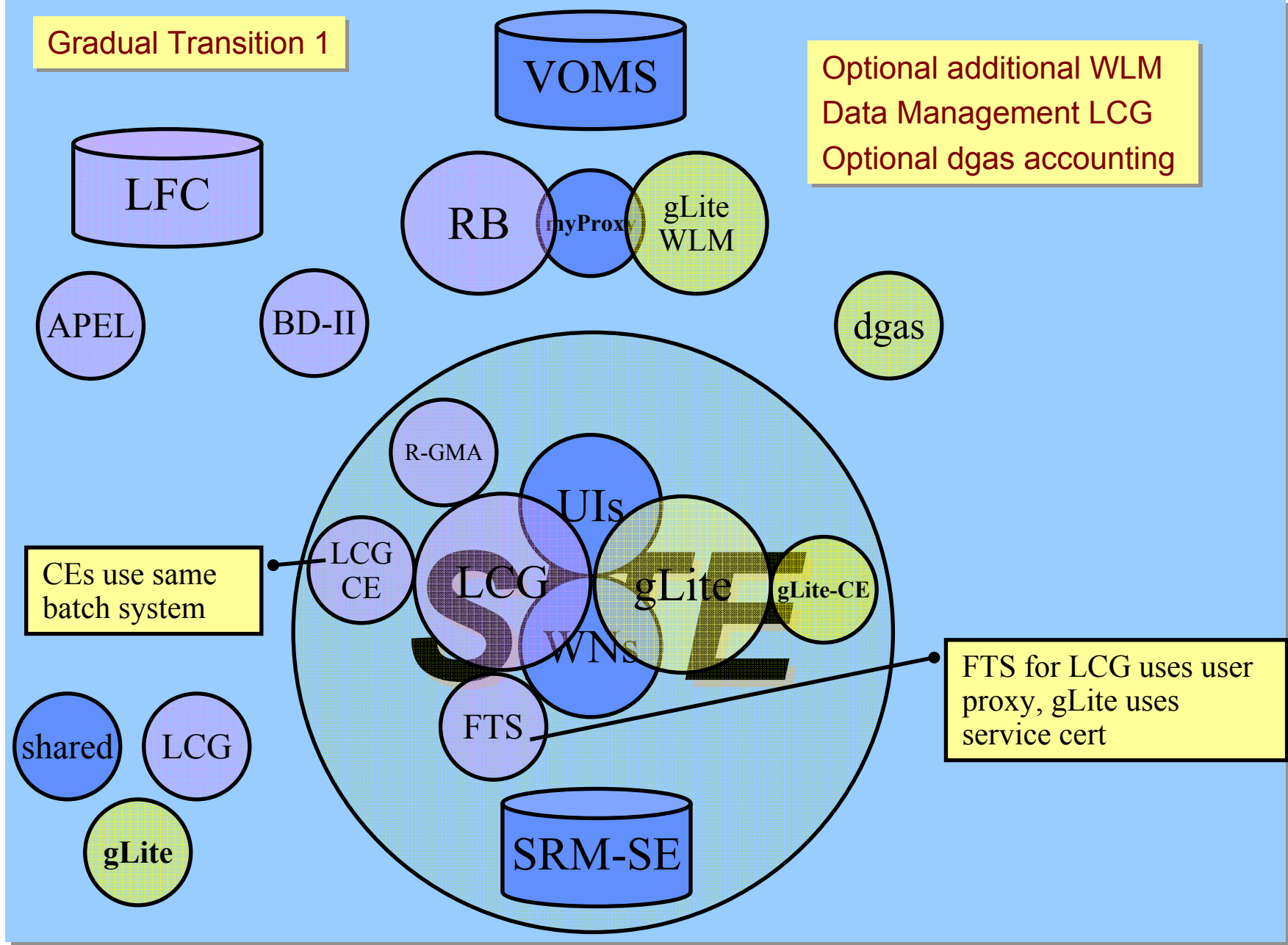
- **First SC3 specific release now**
 - Expect updates for participating sites
- **July next main release**
 - Includes gLite WLM
- **July --> October**
 - Work on missing components
 - VO service nodes.....
 - Work on grid interoperation
 - Add more gLite components
 - Reinvent the concept of a release
 - Components
 - *gLite, LCG-2 and SC3 have a different “hard rate”*
 - More independence of regions and sites

- Slides to illustrate LCG-2 ---> gLite transition

- **We discussed several models in the past**
 - Coexistence
 - gLite and LCG2 share only the WNs and SEs
 - *Data sharing is a problem due to the different security models*
 - *Software goes through the certification process and preproduction*
 - Extended Preproduction (like Coexistence)
 - Limited to the largest 10 sites (> 60 % of the resources)
 - Software moved to large scale facility right after certification
 - Gradual Transition
 - Several steps
 - *Components that meet performance and reliability criteria are added to the LCG production system*
 - Straight forward for WLM
 - More complex for data management
 - *Remove duplicated services after new services have been established*
 - **Needs more frequent updates** (bug fixes, service changes)
 - Certification and smaller scale pre-production service
- **Current Favourite Path to follow:**
 - **Gradual Transition**



Gradual Transition 1



VOMS

LFC

RB

myProxy

gLite WLM

APEL

BD-II

dgas

R-GMA

UIs

CEs use same batch system

LCG CE

LCG

gLite

gLite-CE

WNs

FTS for LCG uses user proxy, gLite uses service cert

FTS

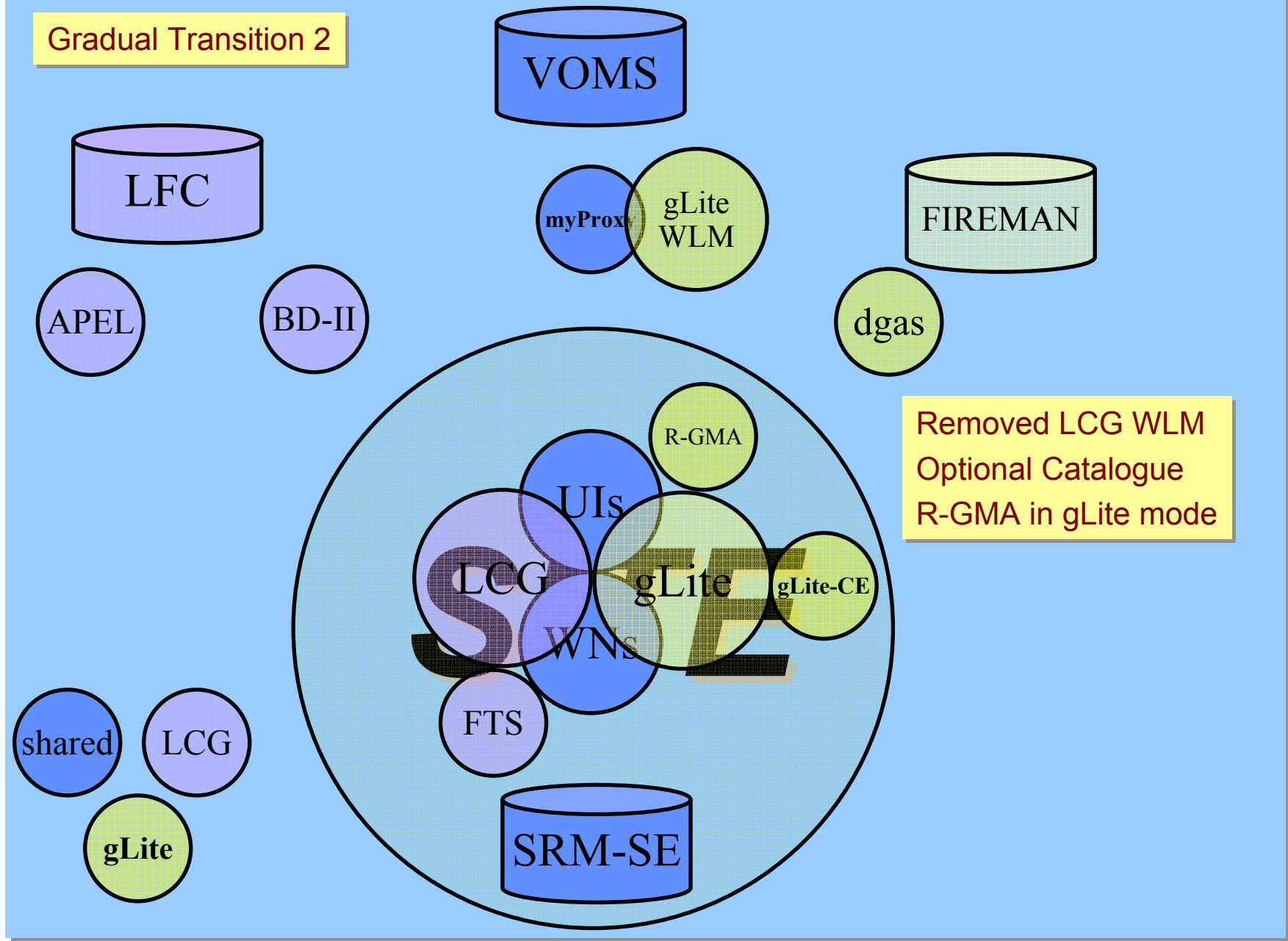
shared

LCG

gLite

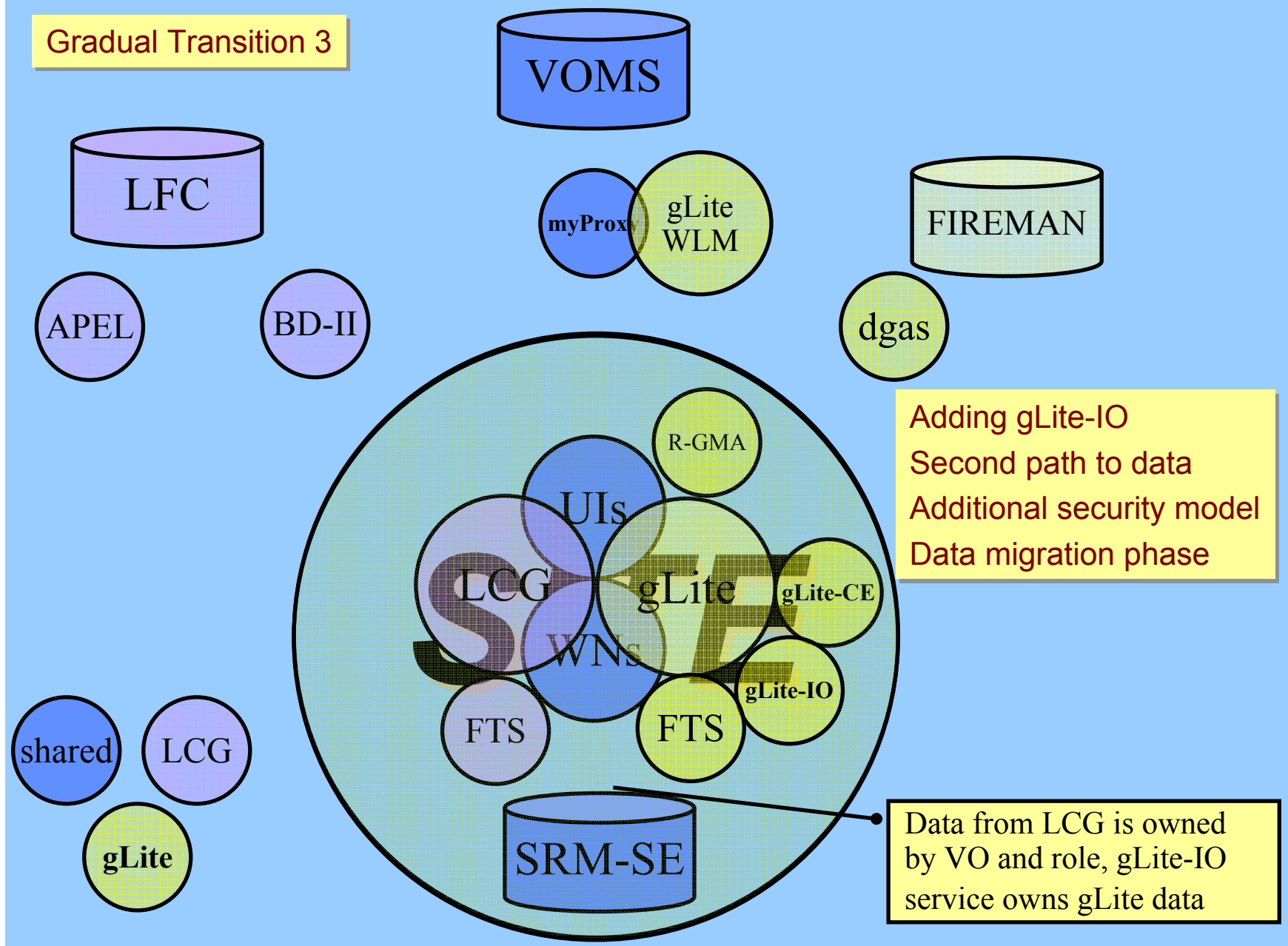
SRM-SE

Gradual Transition 2



Removed LCG WLM
Optional Catalogue
R-GMA in gLite mode

Gradual Transition 3



Gradual Transition 4

