Upcoming Releases

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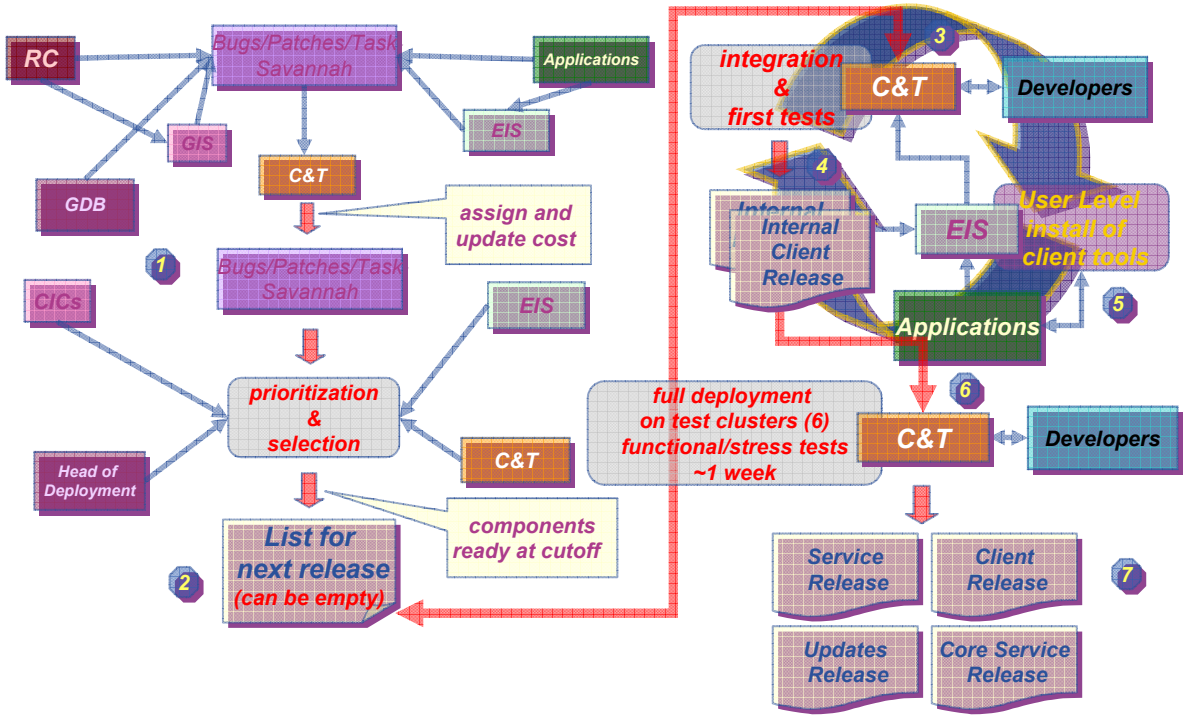
Overview

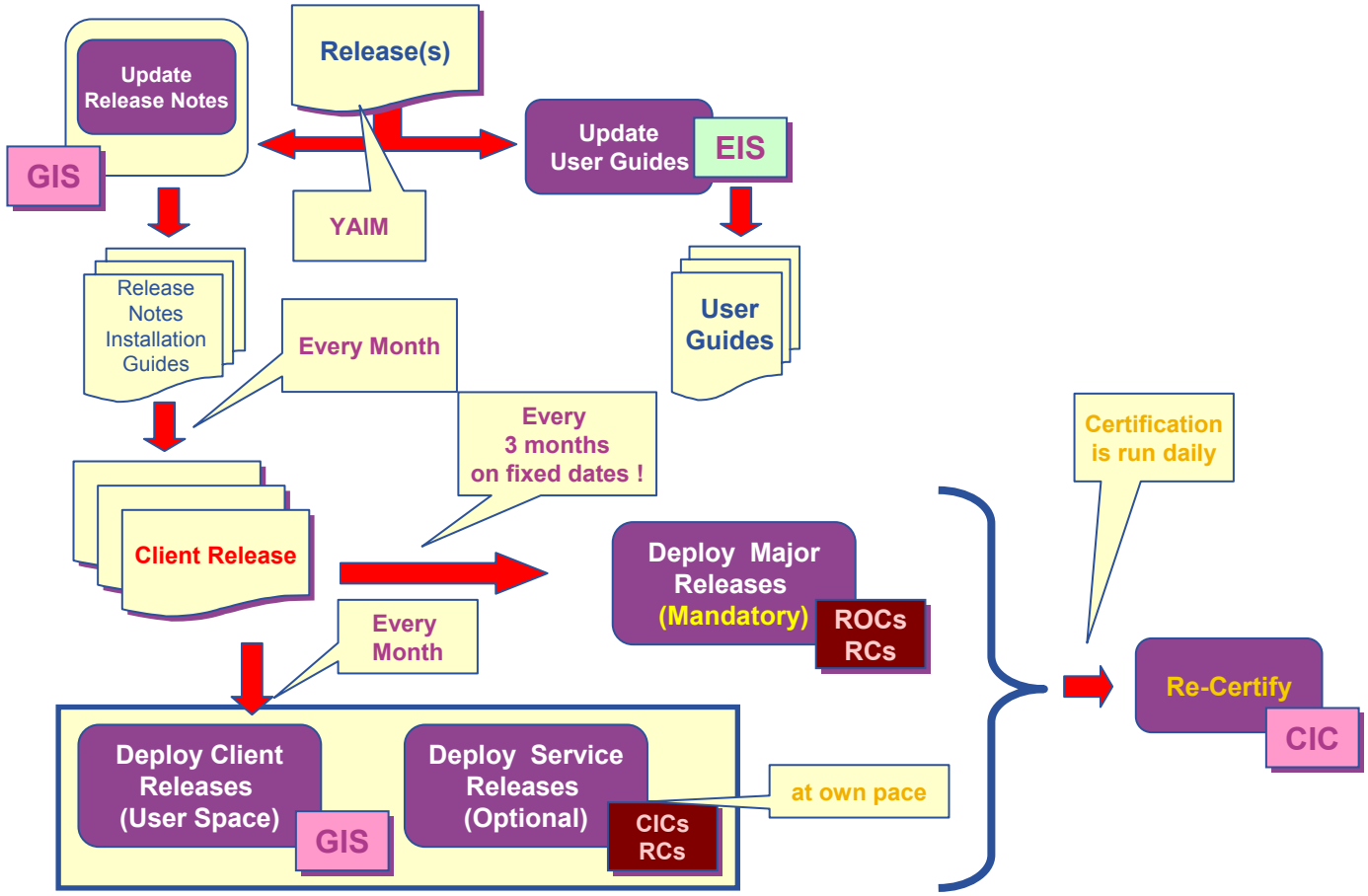
- **The last release**
  - LCG-2_4_0 experience
- **The SC3 release**
  - What will be in it?
  - Who will be affected?
  - When?
  - How will we call it?
- **The “1st of July” release**
  - Components
  - Open Questions
- **July ----> October**
  - Components,

LCG-2_4_0

- **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



LCG-2_4_0

- **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 compability, 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 confilcts	Louis Di	NonCritical	
Relocatable, multi	Introduced new magic variable:	On the WNs a new script to	95%, some RPMs	DONE	Oliver,	Critical	

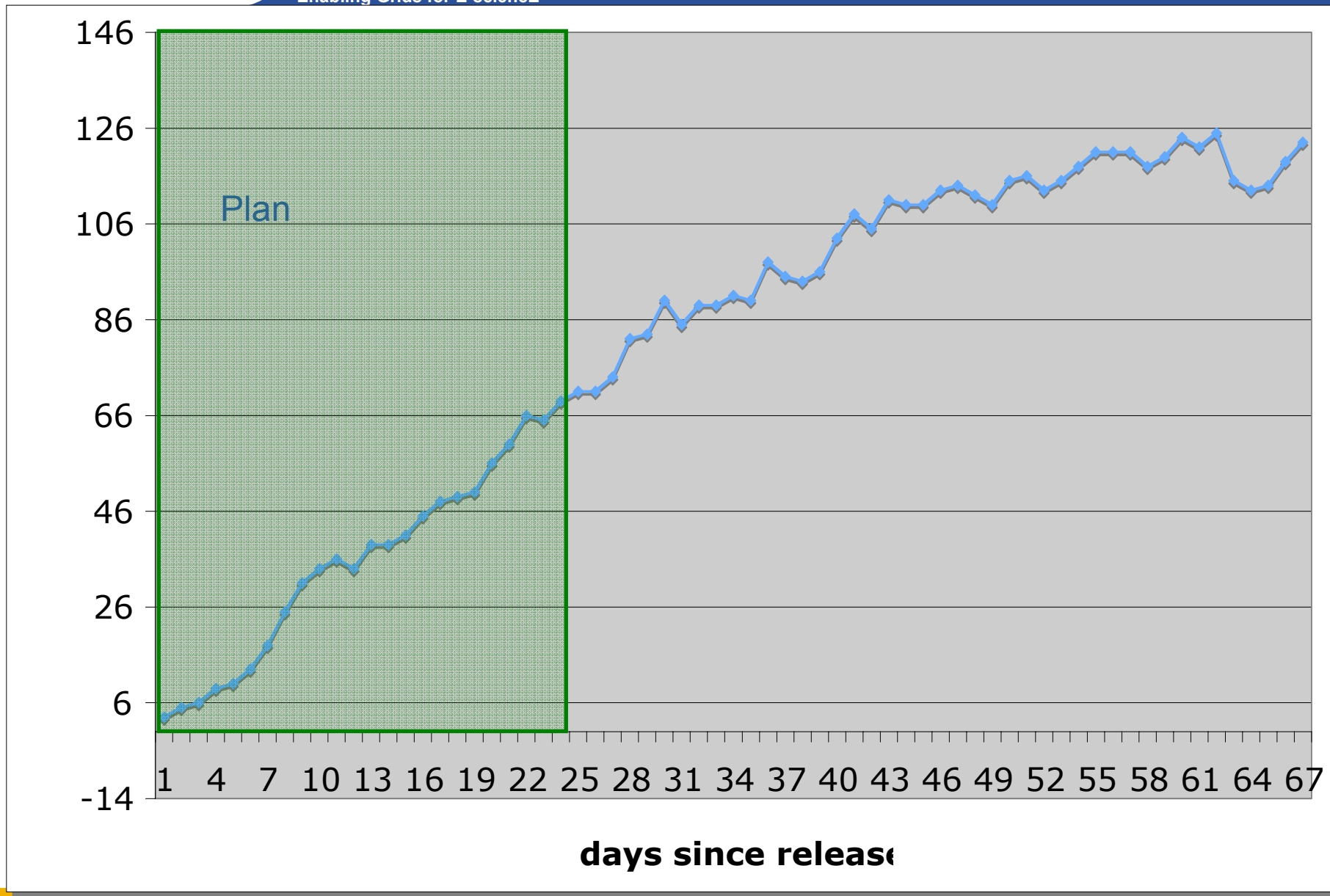
LCG-2_4_0

- **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*

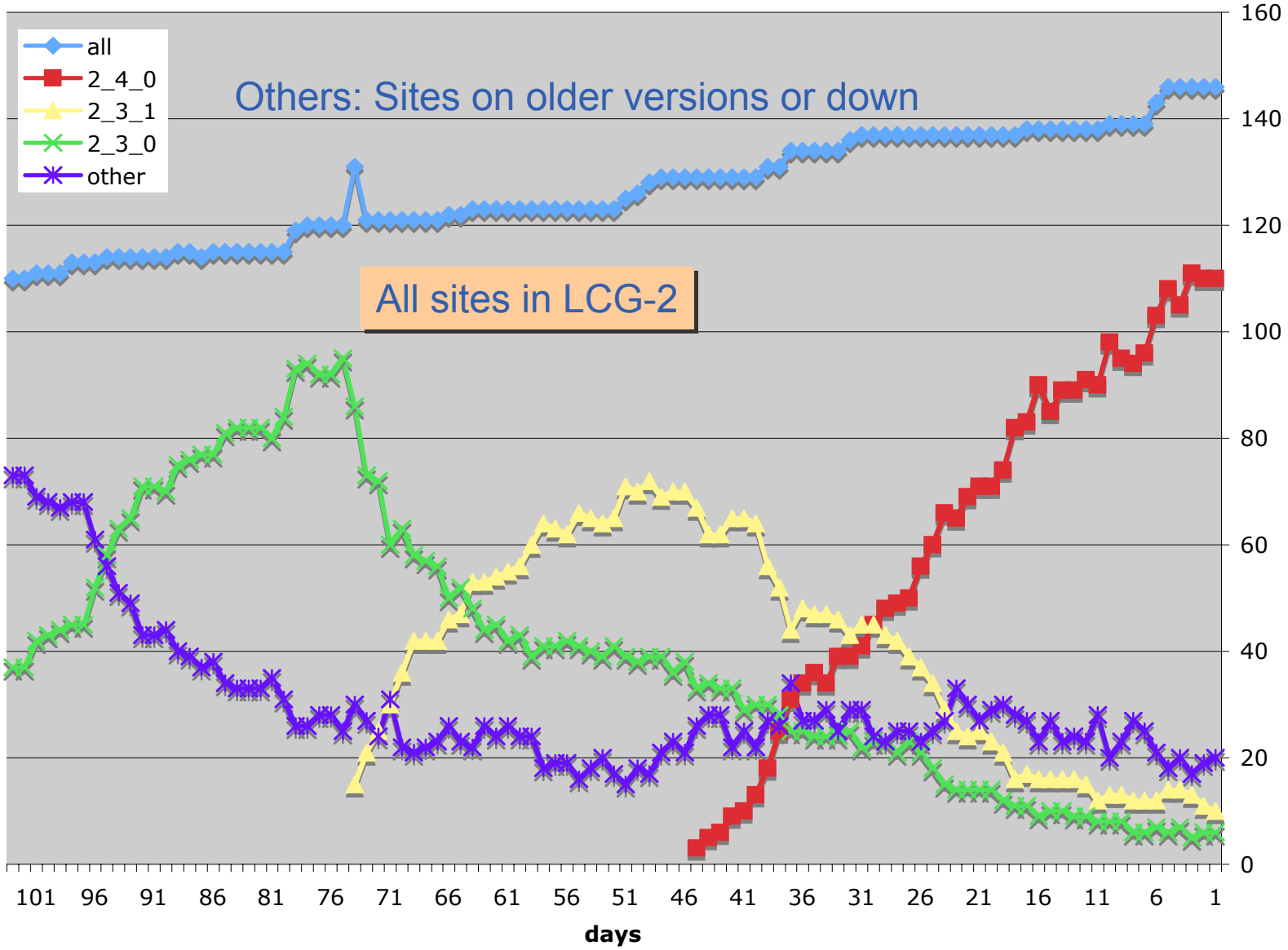
    - Underestimated the time for “final touches”
      - *Release notes*
      - *Deployment tests*
      - *Web page updates*

LCG-2_4_0


146
126
106
86
66
46
26
6
-14
Plan
1 4 7 10 13 16 19 22 25 28 31 34 37 40 43 46 49 52 55 58 61 64 67
days since releas

Version Change history

(a few weeks old)



LCG-2_4_0

- **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!!!!**

The SC3 Release

- **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**

The SC3 Release

- **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.
    - 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 Regular Release

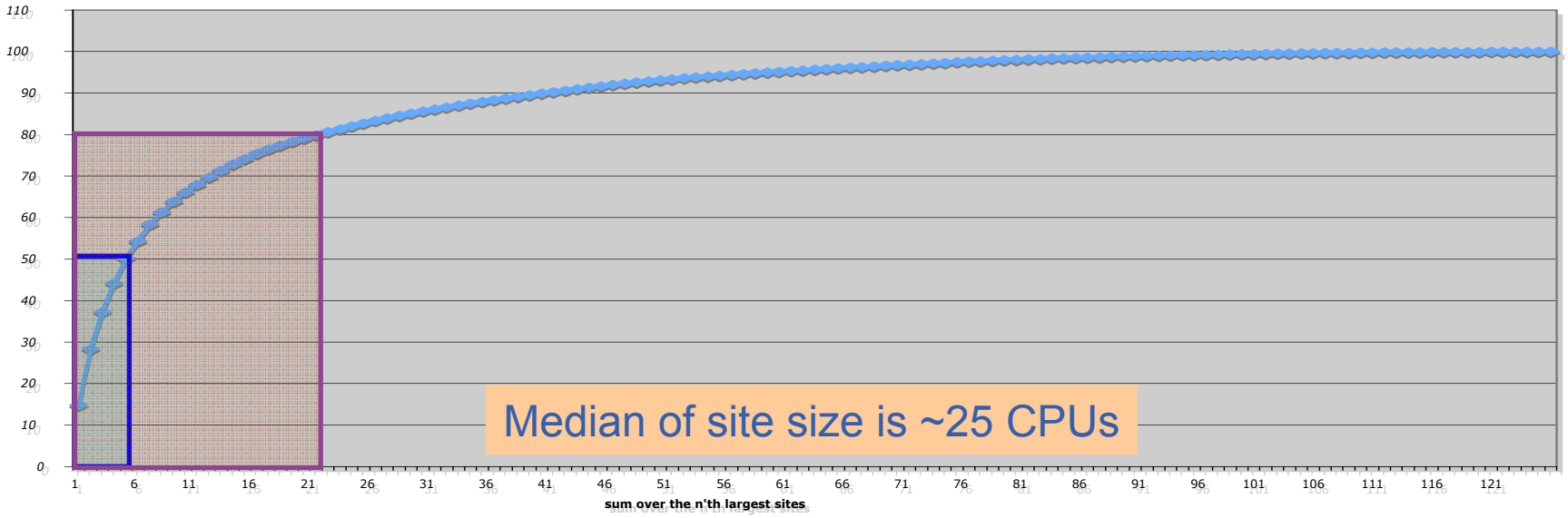
- **Next 3 monthly release is scheduled for 1st of July**
- **What?**
  - VOMs in line with gLite
  - R-GMA gLite version
  - Move to new GLUE schema
    - Backward compatible
    - Extensions for VO dependent values
    - Key value pairs for services
  - Pending bug fixes
    - Including YAIM
  - User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

Next Regular Release

- **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**



Branding

- **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

July ---> October

- **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 problem
    - What role will the ROCs play in the SC3 deployment and operation?
  - VO specific service nodes
    - Prototyping started based on LCG-2 CE
    - Support model not clear
      - *Quality of nodes*
        - Mirrored disks?
      - *Backup*
      - *OS maintenance*
      - *Security*
    - Deployment scenario for large and small sites
  - Local catalogues
    - clear understanding of function and implementation
  - As much of the list of requirements as possible
    - Need clear prioritization

July ---> October

- **For the 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

Summary

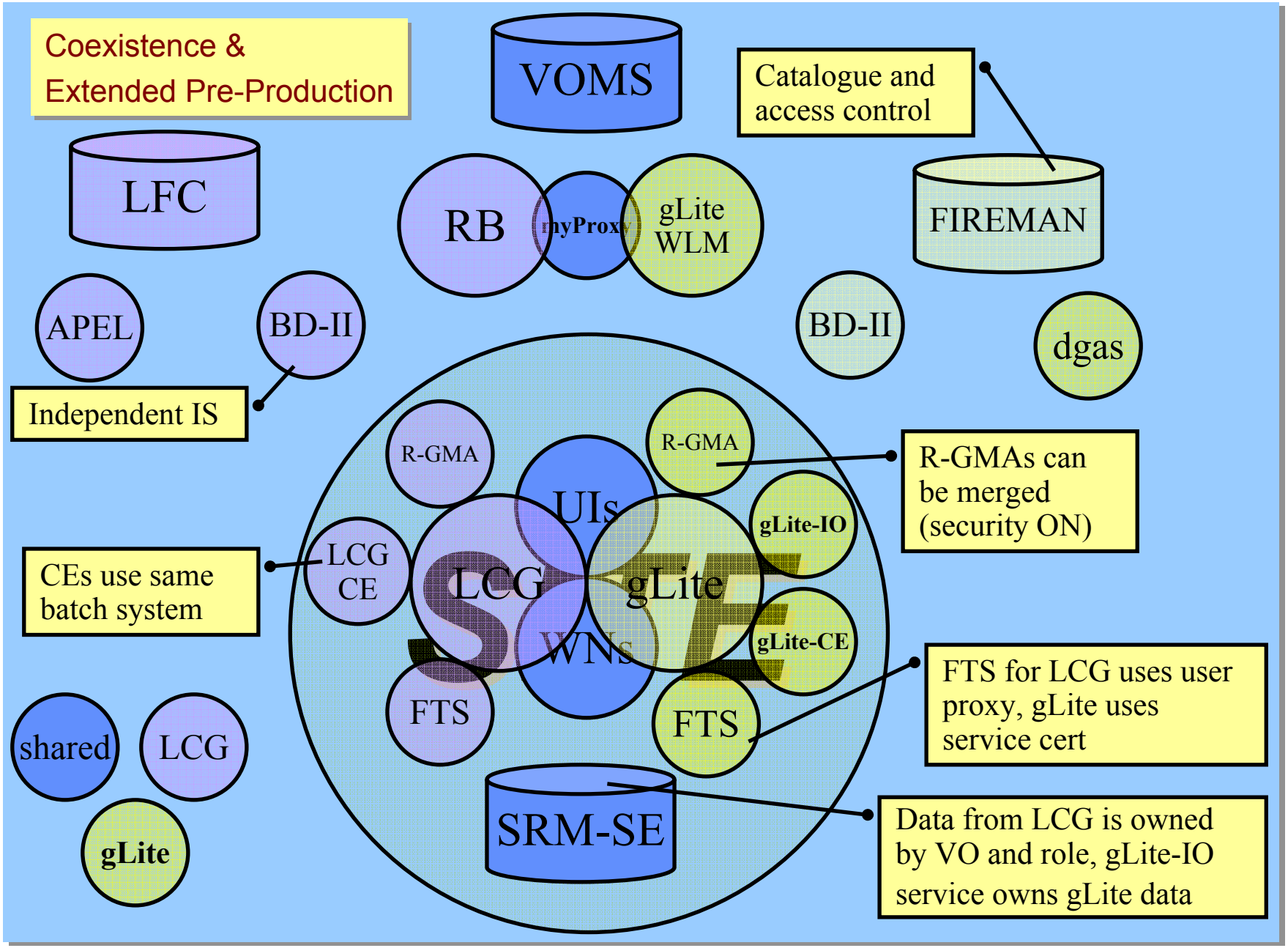
- **First SC3 specific release now**
  - Expect updates for participating sites
- **July next main release**
  - Includes gLite WLM
- **July --> October**
  - Work on missing components
    - VO service nodes…..
  - Work on grid interoperation
  - Add more gLite components
  - Reinvent the concept of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

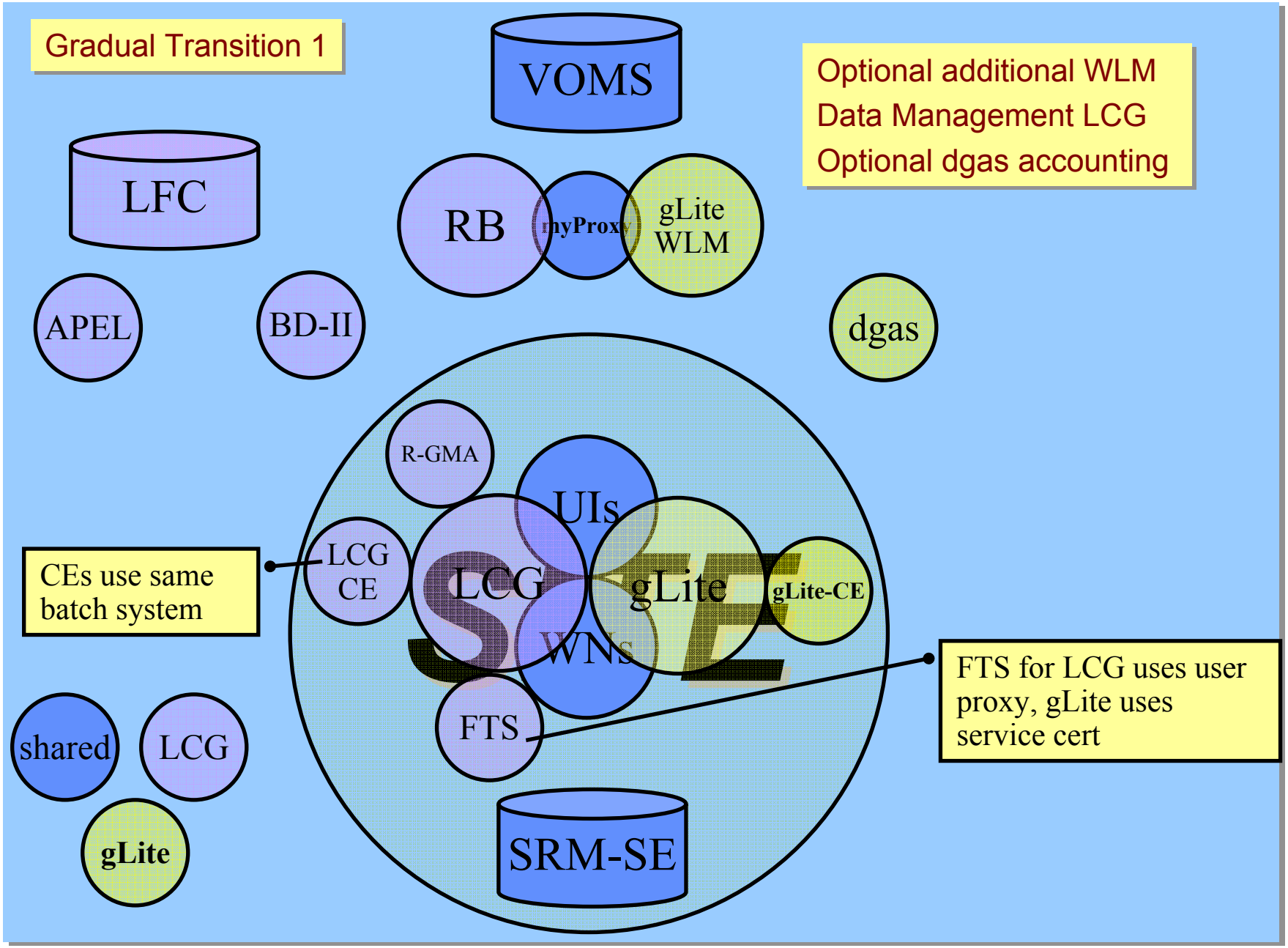
Extra Slides

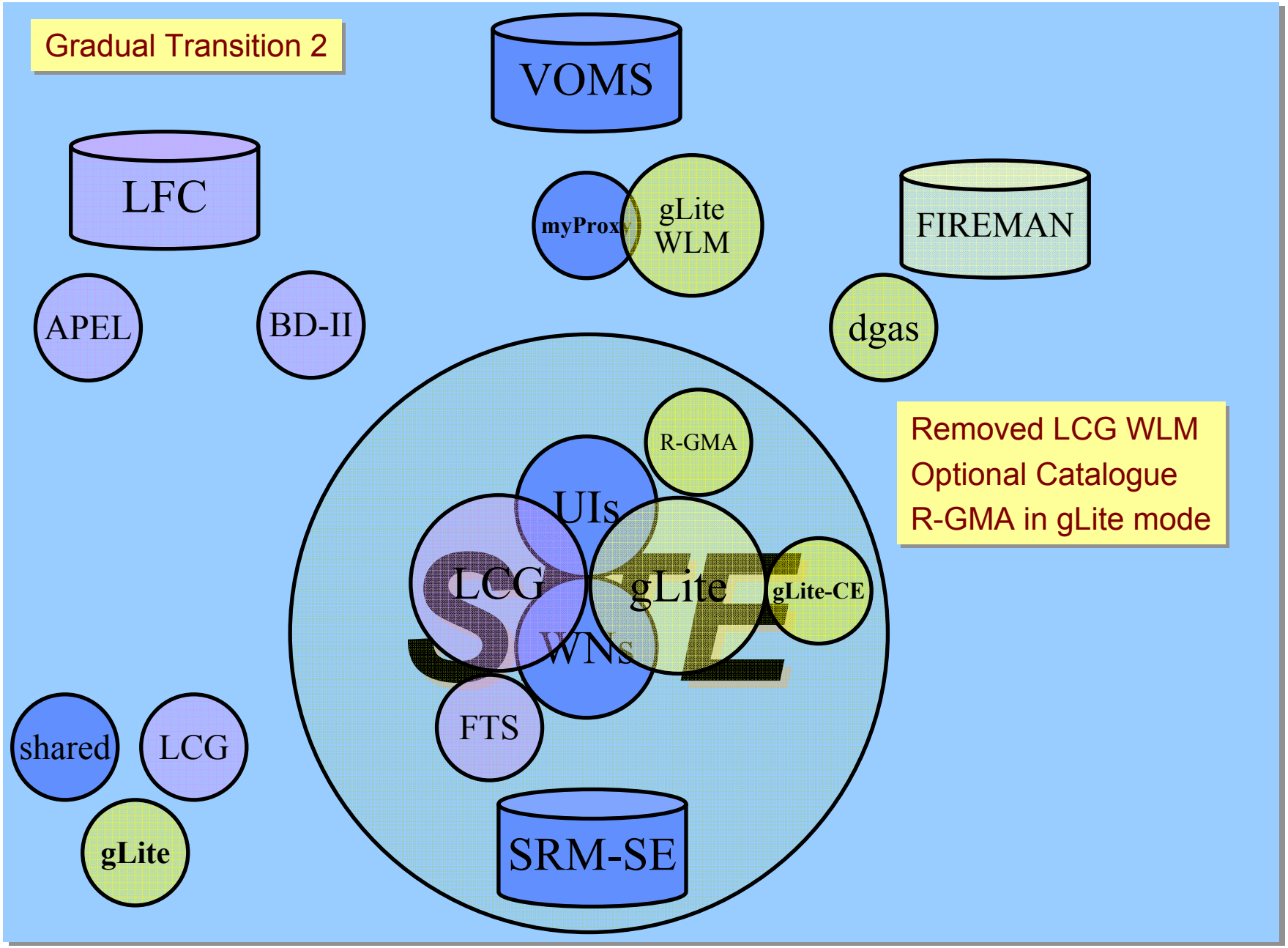
- **Slides to illustrate LCG-2 ---> gLite transition**

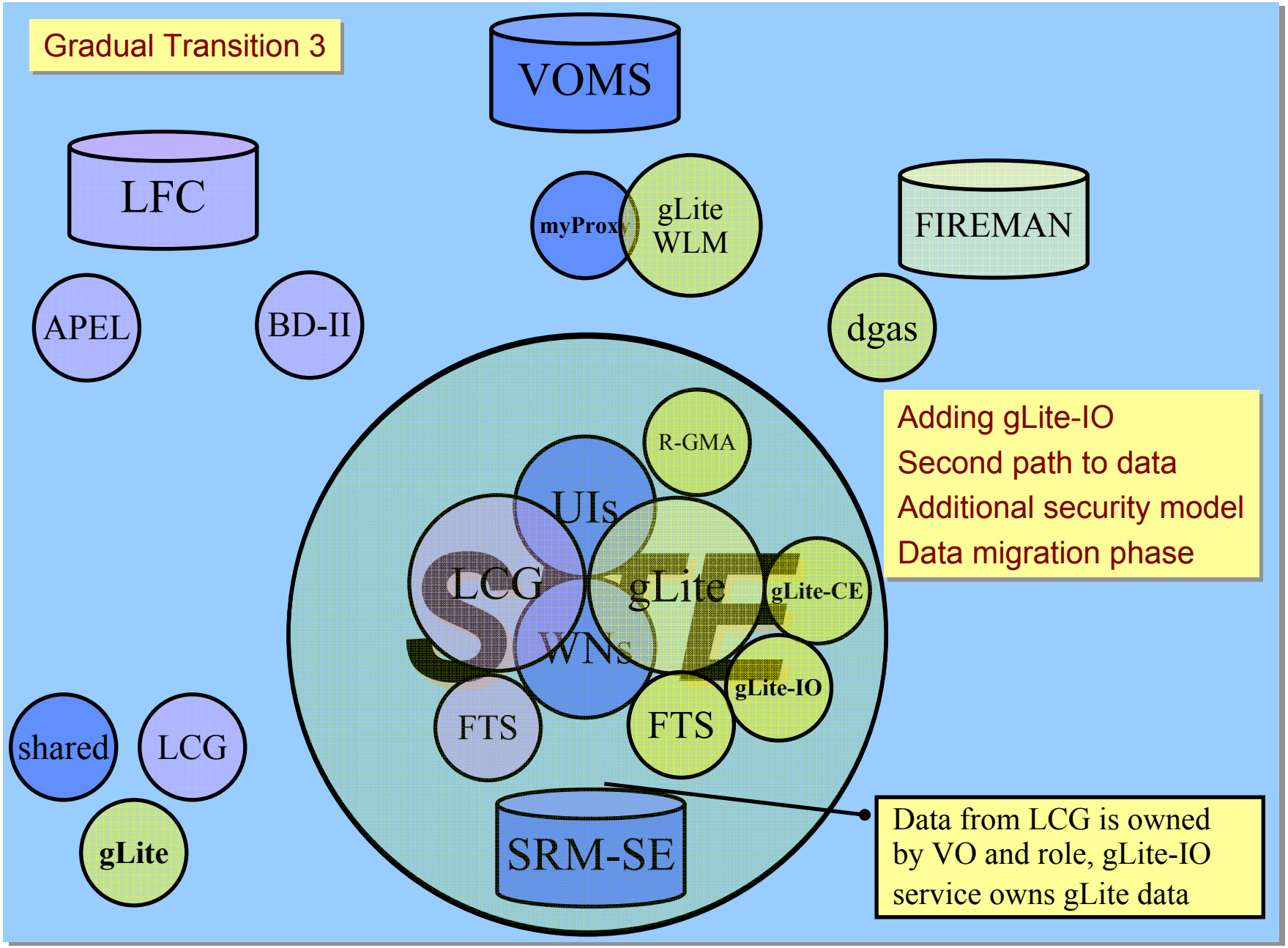
gLite Deployment Models & Migration

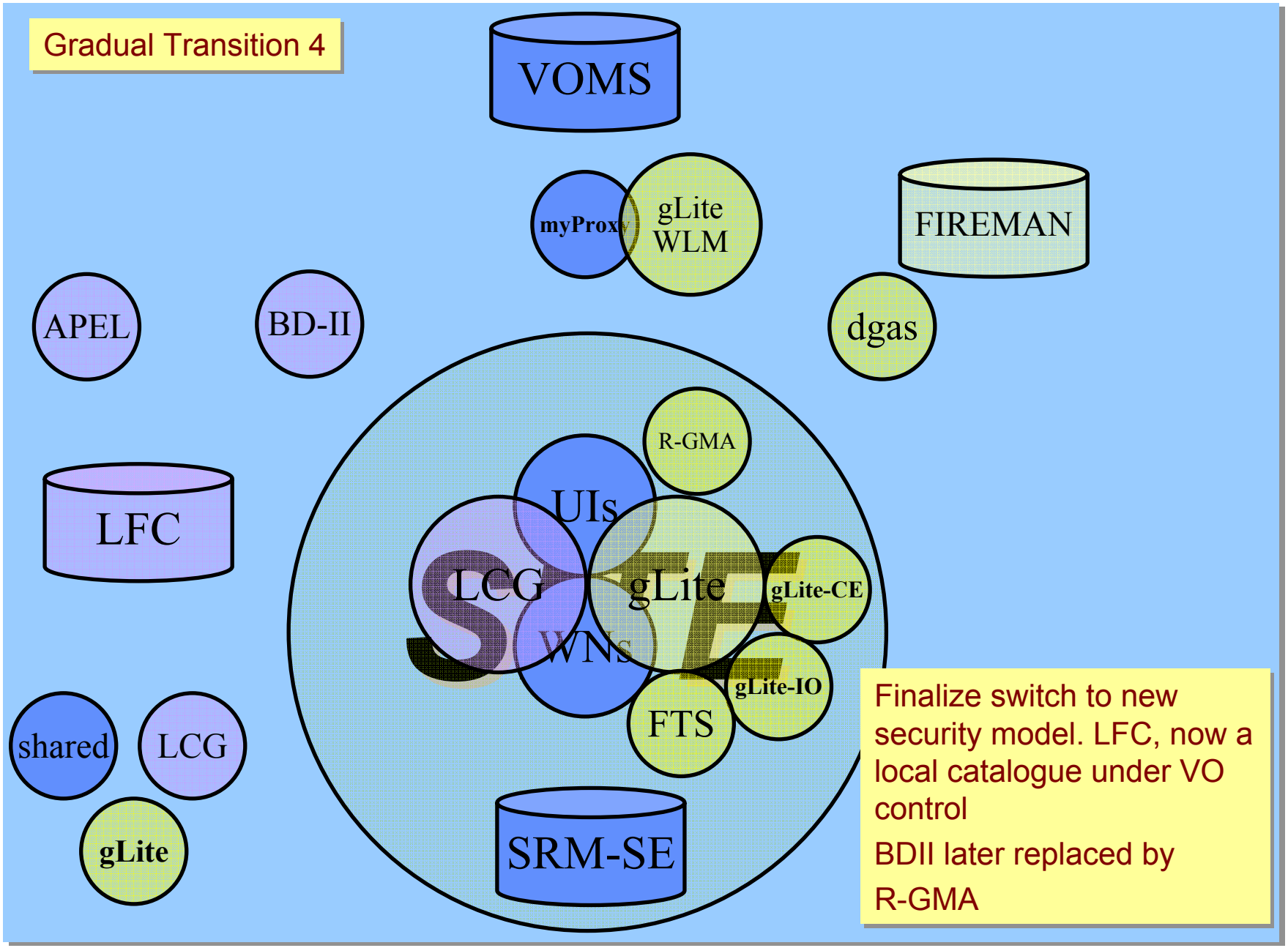
- **We discussed several models in the past**
  - Coexistence
    - gLite and LCG2 share only the WNs and SEs
      - *Data sharing is a problem due to the different security models*
      - *Software goes through the certification process and preproduction*
  - Extended Preproduction (like Coexistence)
    - 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**


Coexistence &
Extended Pre-Production
VOMS
Catalogue and
access control
LFC
RB
myProxy
gLite
WLM
FIREMAN
APEL
BD-II
BD-II
dgas
Independent IS
R-GMA
R-GMA
R-GMAs can
be merged
(security ON)
UIs
gLite-IO
LCG
CE
CEs use same
batch system
LCG
gLite
WNs
gLite-CE
FTS
FTS
FTS for LCG uses user
proxy, gLite uses
service cert
shared
LCG
gLite
SRM-SE
Data from LCG is owned
by VO and role, gLite-IO
service owns gLite data


Gradual Transition 1
VOMS
Optional additional WLM
Data Management LCG
Optional dgas accounting
LFC
RB
myProxy
gLite
WLM
APEL
BD-II
dgas
R-GMA
UIs
LCG
CE
LCG
gLite
gLite-CE
WNs
CEs use same
batch system
FTS for LCG uses user
proxy, gLite uses
service cert
FTS
shared
LCG
gLite
SRM-SE


Gradual Transition 2
VOMS
LFC
myProxy
gLite
WLM
FIREMAN
APEL
BD-II
dgas
R-GMA
UIs
LCG
gLite
gLite-CE
WNs
FTS
shared
LCG
gLite
SRM-SE
Removed LCG WLM
Optional Catalogue
R-GMA in gLite mode


Gradual Transition 3
VOMS
LFC
myProxy
gLite
WLM
FIREMAN
APEL
BD-II
dgas
R-GMA
UIs
LCG
gLite
gLite-CE
WNs
gLite-IO
FTS
FTS
SRM-SE
shared
LCG
gLite
Adding gLite-IO
Second path to data
Additional security model
Data migration phase
Data from LCG is owned by VO and role, gLite-IO service owns gLite data


Gradual Transition 4
VOMS
myProxy
gLite WLM
FIREMAN
APEL
BD-II
dgas
R-GMA
LFC
UIs
LCG
gLite
gLite-CE
WNs
gLite-IO
FTS
shared
LCG
gLite
SRM-SE
Finalize switch to new security model. LFC, now a local catalogue under VO control
BDII later replaced by R-GMA