



Enabling Grids for E-scienceE

# SL4 Status

## April 4th 2007

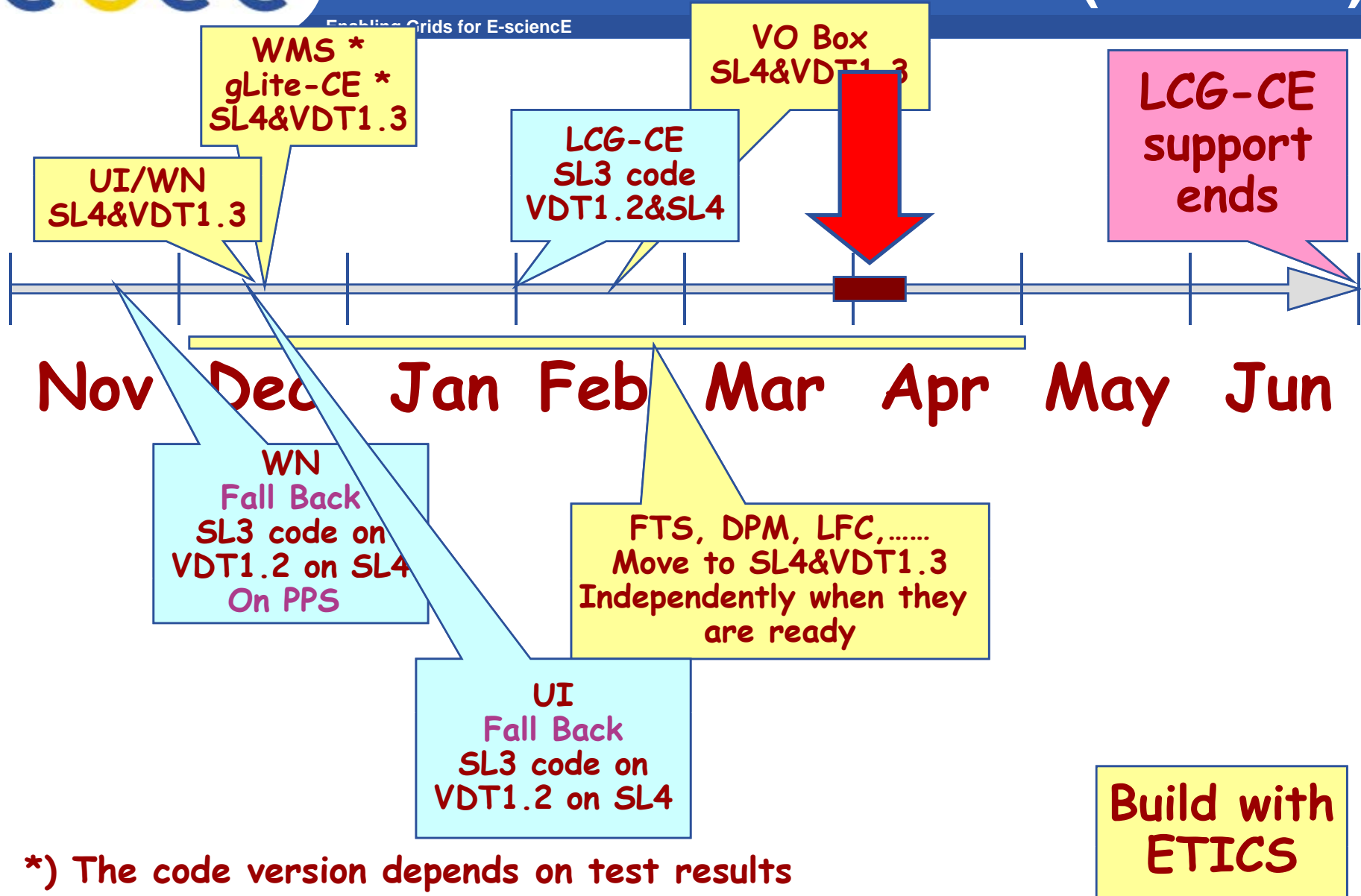
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**SA3**

**CERN-IT-GD**

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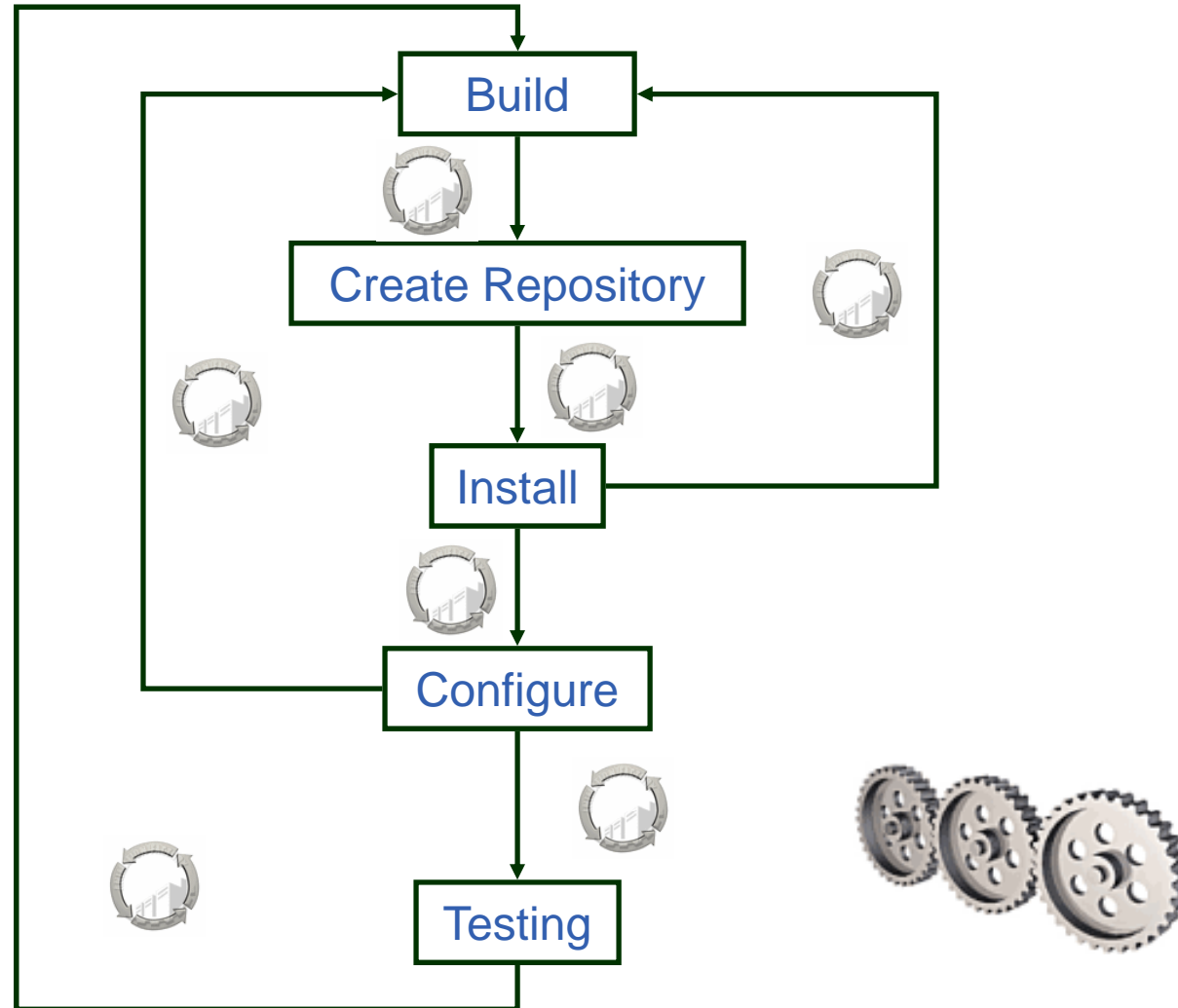


\*) The code version depends on test results

- **Building**
  - 97% success – sl4\_32
  - 80 % success – sl4\_64
  
- **Integration & Certification**
  - UI – Tested
    - Iterating on fixes
  - WMS – Testing
    - Iterating on packaging issues
  - Ready to Test
    - LB, MON, CE, BDII
  
- **PPS**
  - WN – Released 02/04/2007

- **Building is only the start!**
  - First success full WN build 17/02/2007
    - 28 Working days until released
      - *Original estimate: ready 4 weeks from build!*
- **Repository management**
  - How to go from a successful build to a yum repository?
    - Automation of the above
    - Investigation of ETICS tools
      - *Development of additional tools*
    - One-off investment in time
      - *Negligible for subsequent packages*
- **Installation**
  - Package dependency problems
    - Developer intervention and rebuild requires
      - *Currently 8 hours to build glite 3.1 from source with ETICS*
        - 1 build iteration per day

- **Configuration**
  - Updating configuration for glite 3.1
    - And removing redundant configuration
- **Testing**
  - Missing/broken package
  - Configuration errors
  - Runtime errors
    - Requires developer intervention
- **All results in iterations!**
  - Go as far as possible each time
    - Then start again
  - Fast integration cycles required
    - Fix one problem to find the next



- **WN release built the pipeline**
  - Everything else is now queued
  - Can process in parallel
    - Depending on available man power
- **Speed of releases dependent on priorities and available effort**
  - Increased 3.1 effort results in reduced 3.0 effort
  - Problem turn around time is the main limitation
    - Time from problem discovery to problem resolution
- **UI**
  - 4 Packaging problems
  - 15 Configuration problems
  - 4 Runtime problems
    - These are always the slowest to fix (weeks rather than hours)
- **WMS**
  - 20 packing problem.
    - Fixes should be available soon (hours)

- **There is no clean way to provide 32bit gLite on 64bit nodes**
  - This is because of 32bit language extensions used with interpreted languages
  - The 64bit binaries find the extensions, but cannot load them
  
- **Solutions/ Alternatives:**
  - Solution A)
    - Provide 32bit versions of the interpreters
      - (relative) easy for Python
      - Harder for Perl
        - *Has been provided by LAL, they have a recipe to package*
        - *But works only with: `#!/bin/env Python, perl etc.` In your scripts.*
        - *Then the environment has to be setup correctly that the 32bit version is selected*
        - *Common practice in the experiments code*
        - *Not common practice in the current middleware.....*
    - But: This means we start managing externals
  - Solution B:
    - Do this only for Python (use the Application Area Python version)
    - Forget Perl.....
  - Solution C:
    - Ask the SL4 team to add the 32bit binaries to the distribution
    - Still requires the correct environment