Evolution of Grid Projects

and what that means for WLCG

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What?

- In April 2013 the EU Grid environment will change:
  - EMI project ends
    - Today funding dev/support for glite and ARC
  - Parts of EGI-Inspire project end
    - In particular SA3: Support for Heavy User Communities (esp WLCG)
    - The rest of the EGI-Inspire project continues for 1 more year
    - In principle EGI.eu continues thereafter
  - Little or no prospect of continued EU funding in this area
- OSG has entered a new phase
  - Funding is ~20% less

What does this mean for WLCG?

- Software support?
- Operations?

EMI Software in 2013

- Software required by WLCG
  - Most products will be supported by the developing institutions (for "glite" and "ARC")
  - Usually for WLCG, support for other communities as best effort
  - Some components do not yet have identified support:
    - Delegation java; yaim core; yaim modules for torque; EMI-WN

Pos... MI Software process

- By the e... of EMI:
  - All com... ents should be in EPEL
  - Migra... ay from ETICS
    - Use... al" tools: Koji, etc
- WLCG ... requirement is to allow real open source use of the sw
  - Access to source and ability to modify and build and submit changes back to maintainers
- Do not foresee large certification structure (resp. of each maintainer)
  - However should still have a staged-roll-out

Why did OSG move to RPMs?

- Pacman was very nice:
  - Multi-platform
  - Root & non-root installs
  - Install in any location
- But Pacman didn't mesh well with the larger community:
  - People are already using RPMs for the rest of the OS
  - We were repackaging an increasingly large set of software already available as RPMs
  - It was hard for people to contribute to the VDT

Principle of Community Packaging

The OSG Software Team should be a good community citizen when it comes to packaging: When possible, we should use packages from existing and/or broader communities; when that is not possible, we should make our own packaging but contribute them back to the broader communities.

Therefore, we should package software only when one of the following is true:

– The software is not already packaged; or
– The software is packaged but needs significant changes to be acceptable to our users. (Different version, extra patches, etc...)

Otherwise we should use the existing packaging provided by external developers or software repositories.

In short: leverage the community

Borrow

The VDT should borrow packages from the larger community whenever possible.
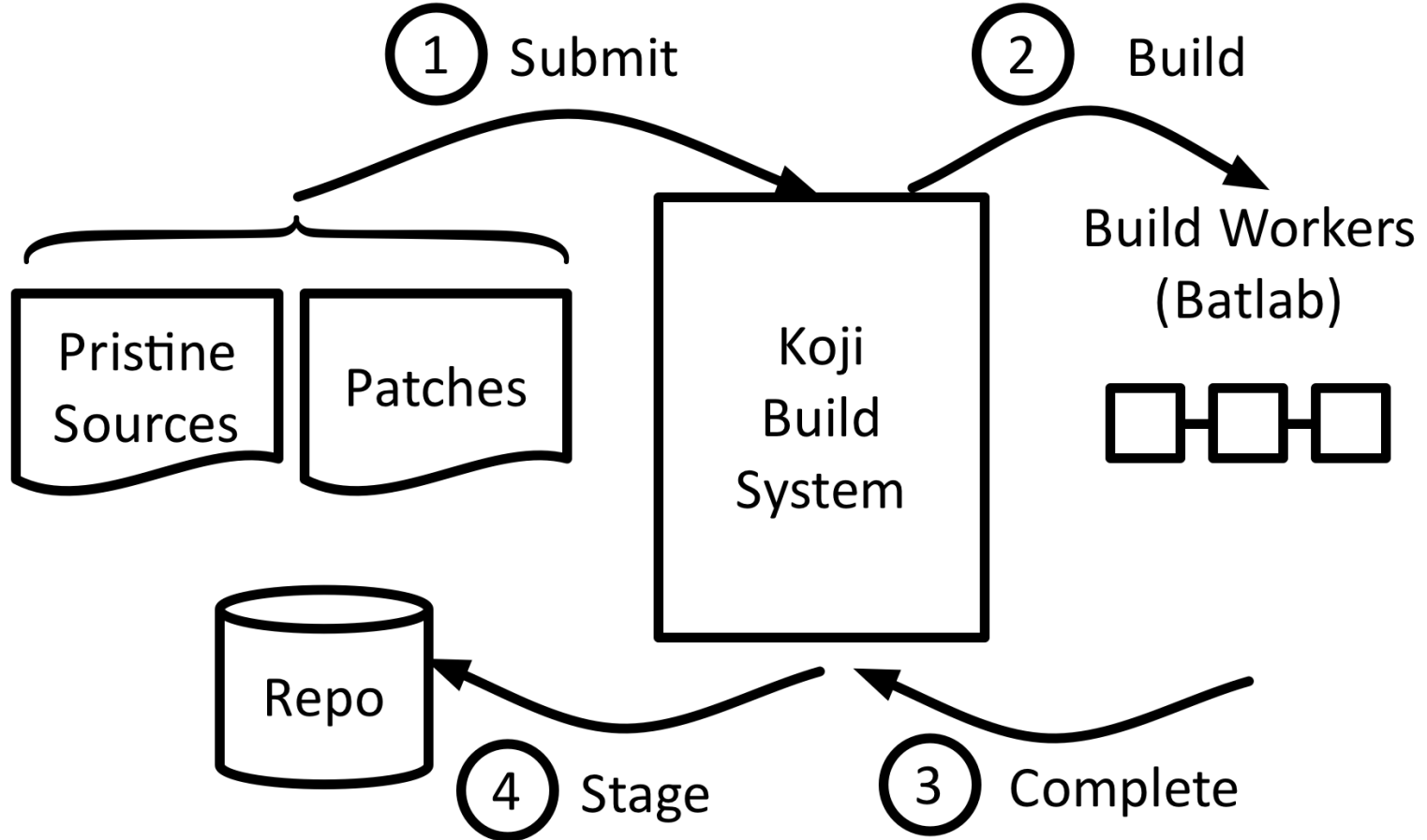
Contribute

The VDT should contribute packages to the larger community (i.e. EPEL/Fedora) whenever possible

Accept Donations

The VDT should make it easy for people to donate packages to the VDT

Building Software in the Batlab

① Submit   ② Build

Pristine Sources   Patches   Koji Build System   Build Workers (Batlab)

Repo

④ Stage   ③ Complete

Miron: Two important differences from the past. (1) We use Koji instead of Metronome as an alternative interface to the underlying Batlab hardware. (2) The interface to the build workers is not Condor because they're managed by Koji.

Software opportunities

- Opportunity for collaboration on middleware OSG – "glite/ARC"
  - At least in packaging and process

- Also – see TEG outcomes:
  - Opportunity to push real middleware convergence across the whole of WLCG
  - Very little specificity left if we agree on pilot frameworks and CE

But…

- Institutes currently funded by EMI will lose significant effort
  - Some strong prioritisation will be necessary
- Some concerns
  - Not enough effort to maintain all that we need if this is left to individual institutions
  - ☛I think we absolutely MUST create community support teams for certain components, especially those that are widely used

Operations

- EGI-Inspire (SA3) will end April 2013
- Today funds various activities
  - Ganga core
  - Parts of dashboards
  - Other experiment support activities
  - Etc
- Again, serious prioritisation of efforts must take place
- Need to focus on operations support (TEGs suggest WLCG ops team)
- Also 1 year later, EGI-Inspire ends; WLCG may have to pick up some operations activities

Operations

- WLCG
  - Has to ensure that we are able to provide all of the operational support that we need
  - Must support all the needed tools
    - Accounting, monitoring, gocdb, GGUS, SAM, dashboards, etc.
- Again:
  - The WLCG collaboration must address these issues together – as a community.
  - Relying on "someone else" is not going to work…

Summary

- End of EMI and EGI-Inspire
  - Will require us to seriously prioritise where available effort goes
  - Will require real community teams to provide support coverage
  - Will also give opportunities for convergence between middleware implementations and software processes between grids
  - …