



www.multixscale.eu

EESSI Happy Hour

Mondays at 14:00 CE(S)T

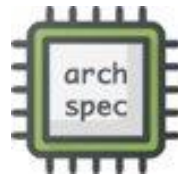
*Topic Series: Scaling Software Builds Across
Architectures with Automation*

<https://www.eessi.io/docs/training/2025/happy-hours-sessions>

Current session: Goals and Design Decisions Behind a Multi-Architecture Build Bot
<https://www.eessi.io/docs/training/2025/happy-hours-sessions>



CernVM-FS



Website: eessi.io

EESSI support portal:

gitlab.com/eessi/support

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Session Highlights:

- Scientific computing depends on ever growing ecosystem of software
 - Nature'23: 100k, PyPI: 700k, CPAN: 225k, CRAN: 23k, Julia: 10k, EasyBuild: 3k+xk extensions
- Software is expected to "just work" on HPC systems, cloud instances & laptops
- Building (from sources) & maintaining software stack is
 - Time-consuming, error-prone & duplicated across sites
- EESSI to the rescue? Yes, but it requires tooling, so the sheer size is manageable
- **How many installations* in EESSI today?** (*) any software, any version, any architecture

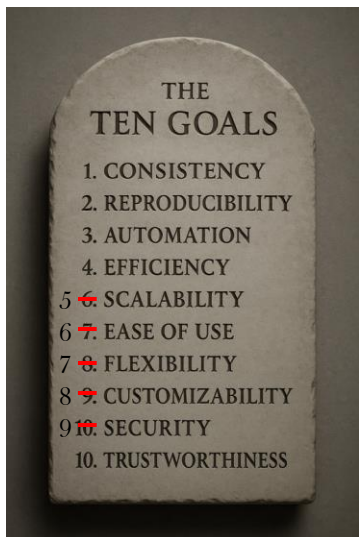
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Session Highlights:



1. Independent of whom triggers build or where it runs
2. Sometimes one needs rebuilding
3. Taking humans out of the loop* for error-prone repetitive work
4. Avoid wasting scarce build resources
5. Cope with *MORE*: packages, architectures, sites, contributors



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Session Highlights:



6. If it's too hard to use, only experts will do → new bottleneck
7. Different scenarios need different workflows (build + test)
8. Cope with differences of build sites
9. Prevent unwanted changes that may compromise the stack
10. Confidence that installations are done correctly & transparently



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Session Highlights:



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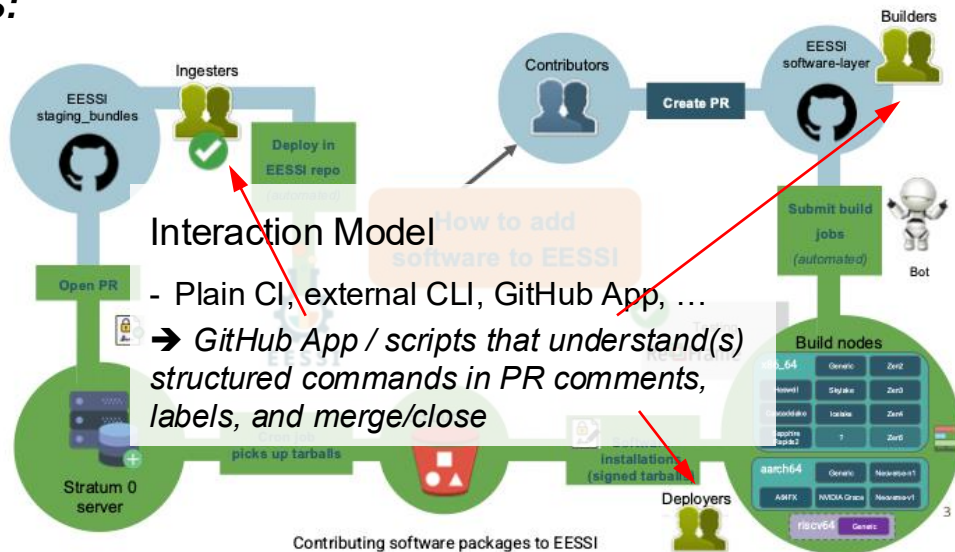
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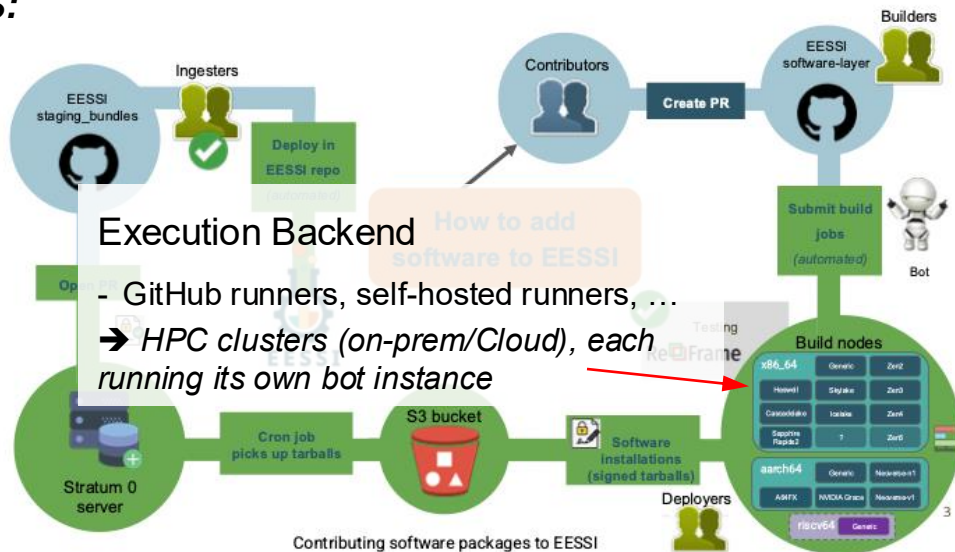
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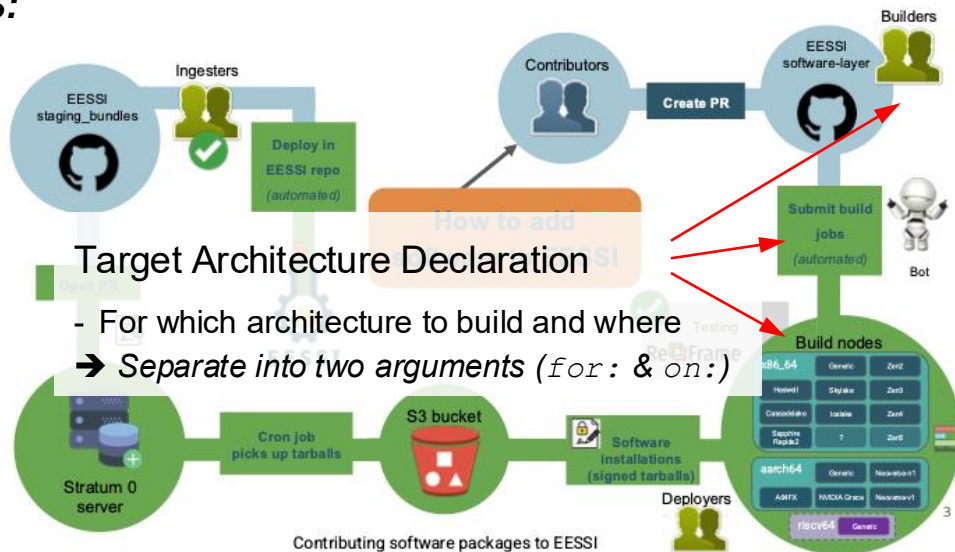
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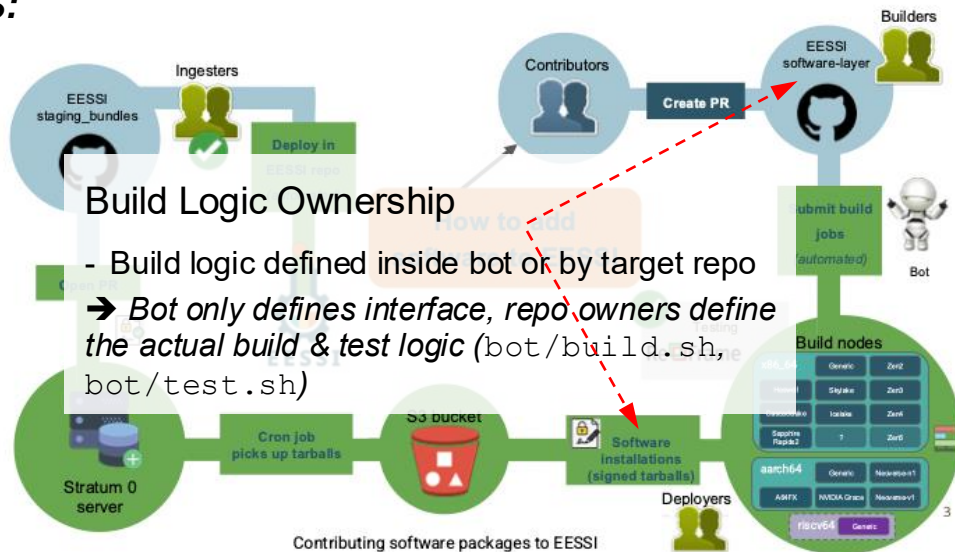
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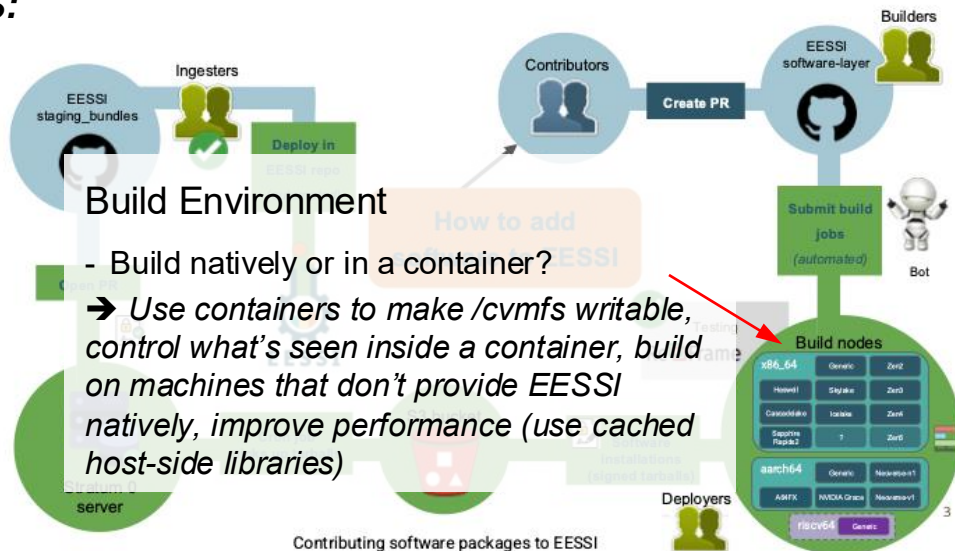
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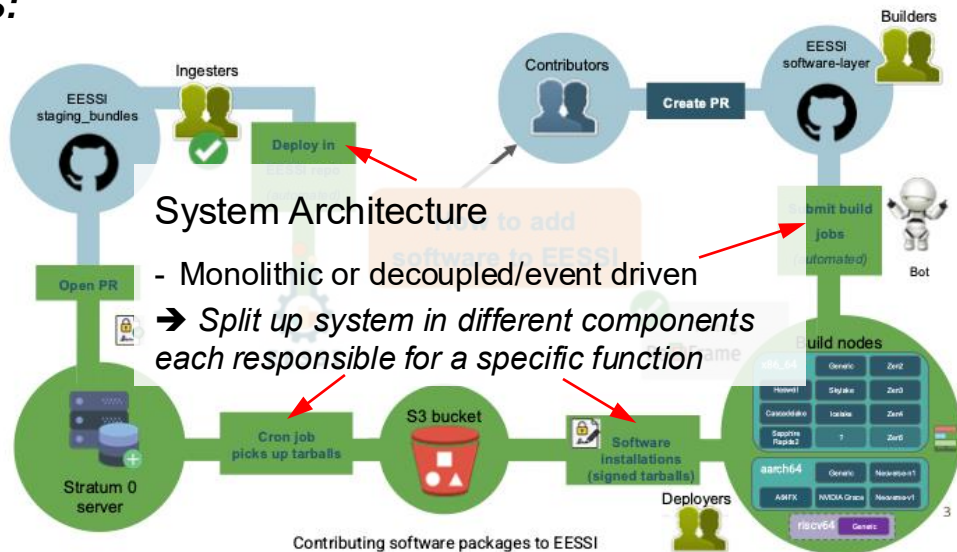
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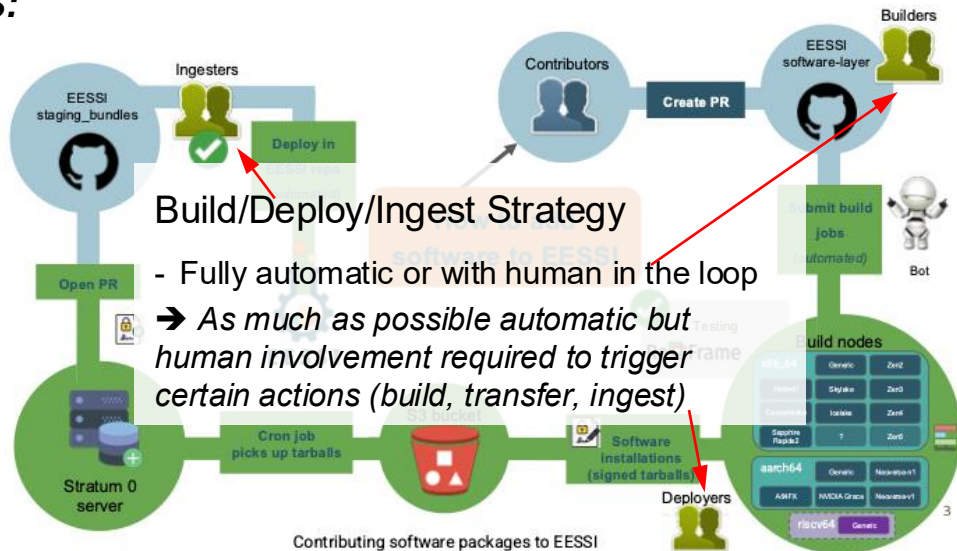
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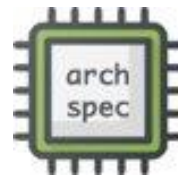
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*Next session: How It Works: Event Triggers, Build Clusters, and Automated Packaging at
Scale*

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