Validation Infrastructure: Improvements and Status

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- Motivation & System Overview
- Recent Progress
- Near-term Plans

Principal contributions:
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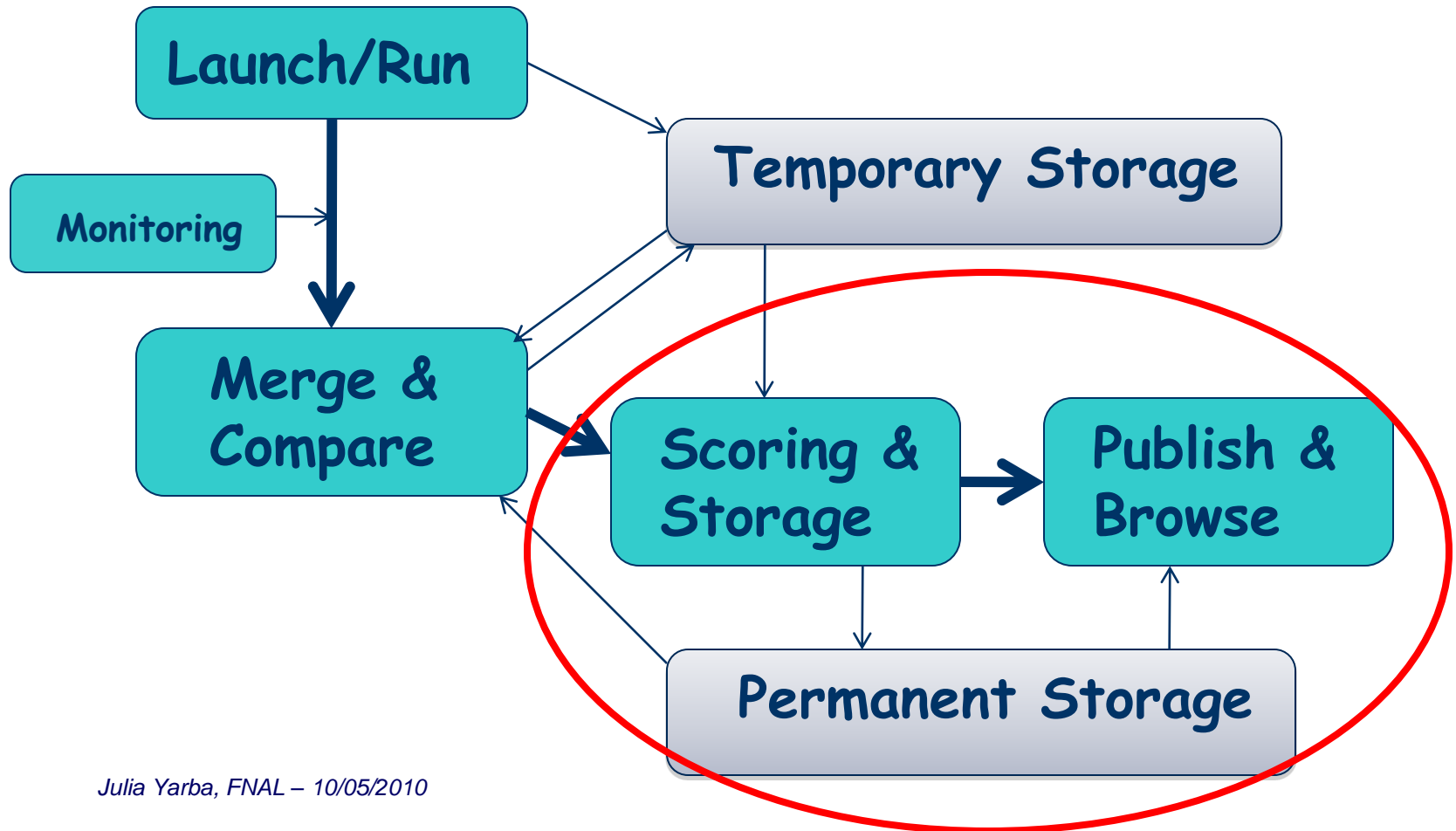Special thanks: V.Ivanchenko (CERN)

Motivation and Benefits

- **Motivation:**
  - Standardize testing among developers

- **Benefits:**
  - Completion of tests on definite timescale
  - Access to the results in the central location
  - Share tools, resources, and references
  - Track history as the models evolve

- **Requirement Document – "signed" July 2009**
- **Design – outlines at the last year's G4 WS**

Workflow and Applications

Launch/Run

Monitoring

Temporary Storage

Merge & Compare

Scoring & Storage

Publish & Browse

Permanent Storage

Recent Progress

- Design Document written and "signed"
- The project has evolved into joint efforts with the EM group
- Storage and Applications for Display and Publication implemented and deployed at the dedicated server at DESY-Zeuthen:

  http://g4jsp.ifh.de:8080/G4HadronicValidation

- Detailed reports and discussion at the Hadron-2 parallel session, incl. report from A.Schaelicke on EM Validation efforts

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http://g4jsp.ifh.de:8080/G4HadronicValidation

Publishing Results (password protected)

Further Plans

- **Upload large volume of existing data**
- **Cleanups of existing applications**
- **Root files & Interactive overlay/comparison**
- **Maintenance**
- **Implement production tools for CPU heavy tests**
  - Initial computing resources identified

Summary

- **G4 Validation Framework is joint effort HAD+EM**
- **Storage, Display and Publication tools deployed at the dedicated server at DESY-Zeuthen**
- **Collection of validation results partially transferred to the new system; need to complete !**
- **Various improvements – in near-term plans**
- **Next big step – production tools**
- **Manpower absolutely needed !**