Validation-ready Lab Data Infrastructure

Saves Scientists Time and **Boosts Compliance**

Ganymede

The Problem

Lab Automation and Compliance Are a Delicate Balance

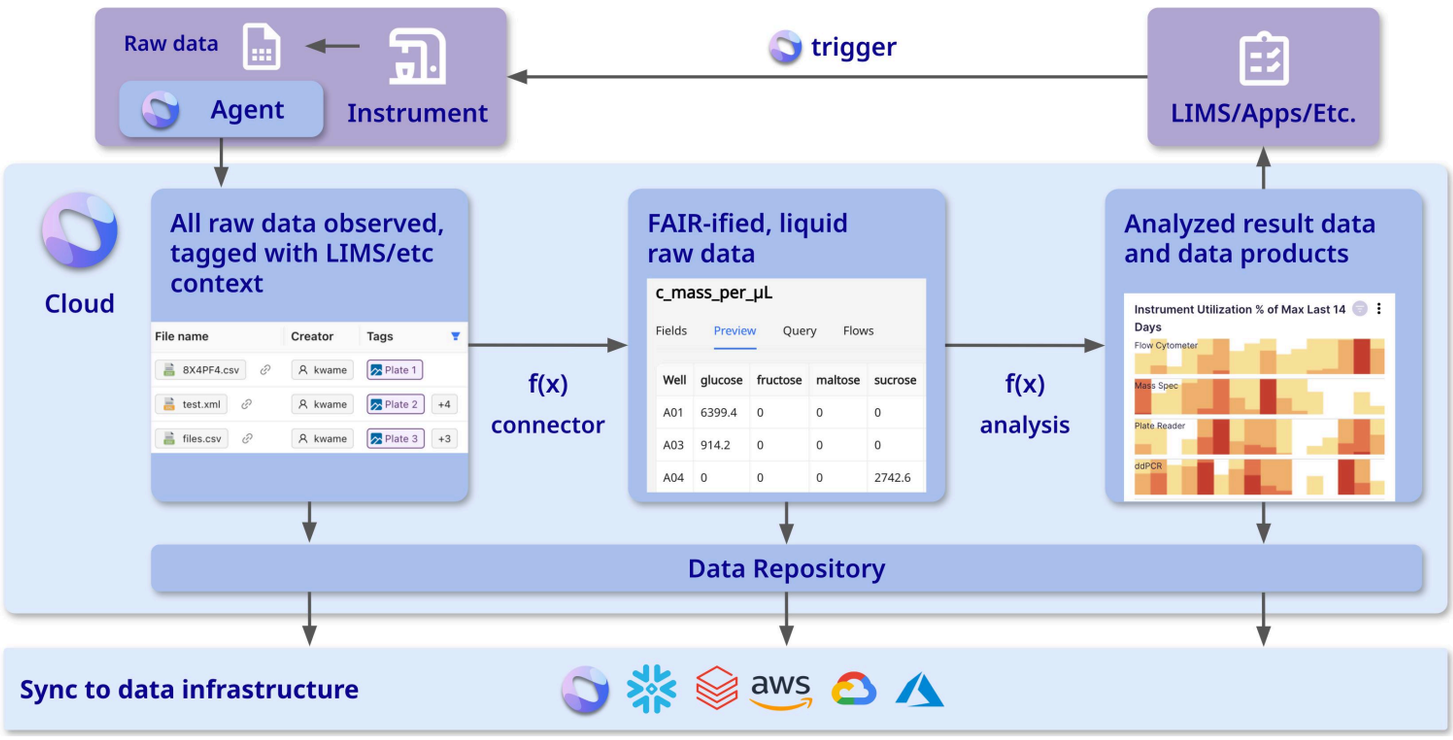
Automation is taking over the wet lab, but in validated and GxP contexts, it also presents an increasingly complex risk management surface. This is particularly true for modern software where Computer Systems Assurance (CSA) approaches are rapidly evolving. How can you leverage the data infrastructure, analytics, lab automation, and instrument connectivity tools that are native to R&D, in a now-validated context as you move into GLP or GMP?

Solution

Ganymede is Validation-Ready Lab Data Infrastructure

Ganymede robustly connects a wide array of laboratory instruments to the cloud for data flow, and automates scientific analysis. This connectivity not only enhances operational efficiency but also supports compliance by maintaining consistent and accurate data records, versioning analysis logic, and reducing the surface area for human error.

- **Capture and FAIR-ify Data:** Ganymede's connectors automate data capture and parsing into a standardized format, ensuring completeness of data capture, preservation of true originals via checksums, and enabling QC checks.
- **Automated Analysis:** This clean cloud-based dataset makes it easy to automate analysis, not only saving scientists and operators time, but removing the potential for human error in calculations or in data entry into applications like Excel.
- **Data Workflow Automation:** Scientific results can then be automatically pushed to systems of record like the LIMS or MES; QC checks can be automated as well; and all of this from raw data to analyzed output becomes a dataset in your data infra.



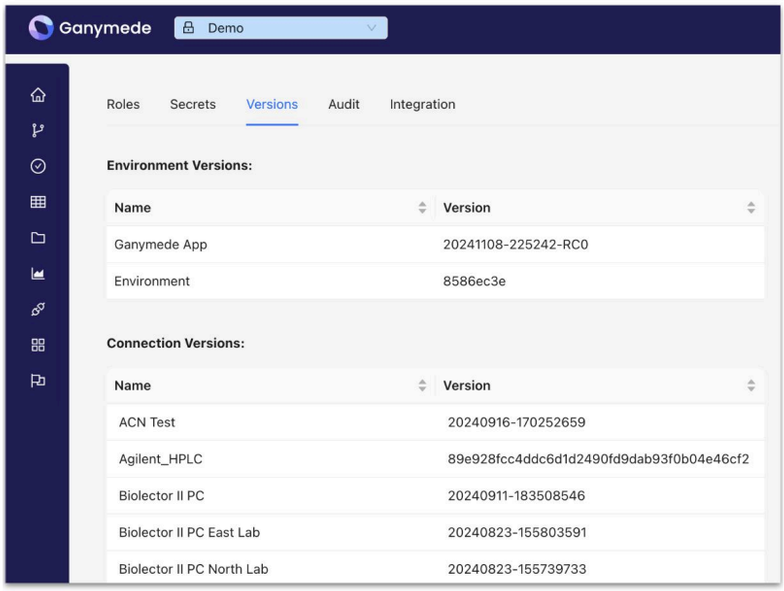
Perfecting Traceability

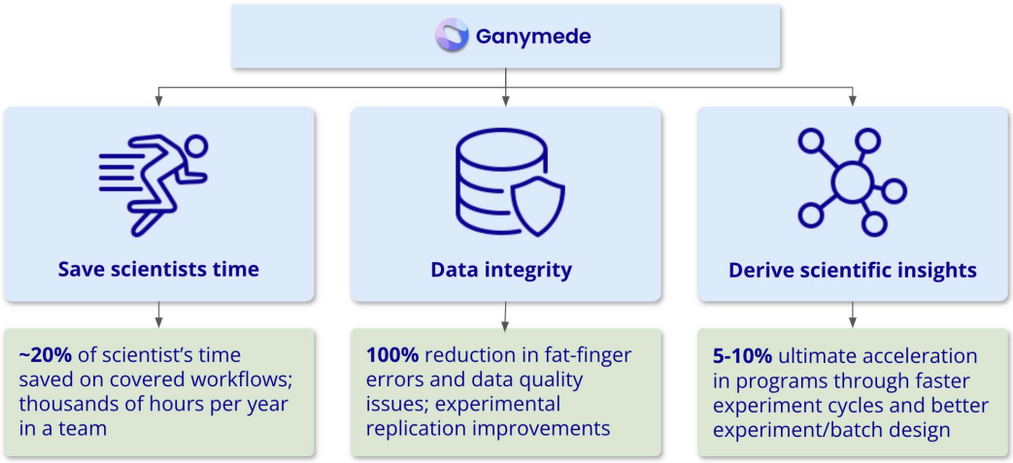
Lab-as-Code Makes it Possible

Ganymede's Lab-as-Code technology underlies this approach and makes it easy to ensure absolute traceability on all data and logic, as well as the system itself.

- All calculations happen against versioned data and code in a functional pipeline, ensuring *any* data can always be traced back to the code version that created it and the data that went into that code.
- The platform and configuration are similarly versioned and linked; every pipeline run knows what version of the Ganymede application, or Windows Agents, it was running with.

This ensures that during validation and qualification phases, the infrastructure and traceability layer is already complete and enforced, so you can focus on your business logic and SOPs. Ganymede's platform has helped dozens of pharmas and biotechs achieve this robustness.





Value Analysis

Automation meets Compliance

In large deployments, Ganymede can save thousands or tens of thousands of scientist hours through automating these data tasks, all while accelerating and powering compliance through richer data automation and traceability.

Not only is the data capture ensured in a FAIR format in the client's cloud via Ganymede's sync, but it's also more robust and accurate for quality. This further creates a better data layer for analytics, whether applied in a quality context to measure QC attributes or compliance operations, or in a scientific context to evaluate the process.

Interested in a demo or to discuss how this could apply to your lab's quality journey? Reach out to us at **hello@ganymede.bio** or visit our website at **www.ganymede.bio** to learn more.

Major Data Automation Areas

CDS/AI (LC or MS)
- Peak finding
- Method correction
- Automated QC
- Quantification

Bioprocessing
- Bioreactor DOE
- Environmental sensor data
- Nucleocounting/ cell analyzers

Flow Cytometry
- Automated gating
- Cell analyzers/ nucleocounting

Screening
- IC/EC50 etc. (4PL)
- Standard curve fitting
- QC analysis
- Plate mapping

Other Examples
- Metabolomics assays
- Particle characterization
- UV Vis titer/quant/etc
- Protein/RNA/DNA quant