



AD11: SAS Viya & Posit Team Git-enabled Integration

Maksym Prykolota

Debiopharm International S.A.

PHUSE EU Connect 2025, Nov 18th

Intro

**AD11: SAS Viya & Posit Team
Integration: Git-enabled, AI-
driven Clinical Reporting with
Azure & Open-Source
Technologies**



Debiopharm International

Debiopharm International is a Swiss biopharmaceutical company focused on developing innovative therapies for oncology and infectious diseases. We specialize in in-licensing promising drug candidates, advancing them through clinical development, and then partnering with larger pharmaceutical companies for commercialization.



Maksym Prykolota

Manager Statistical Programming



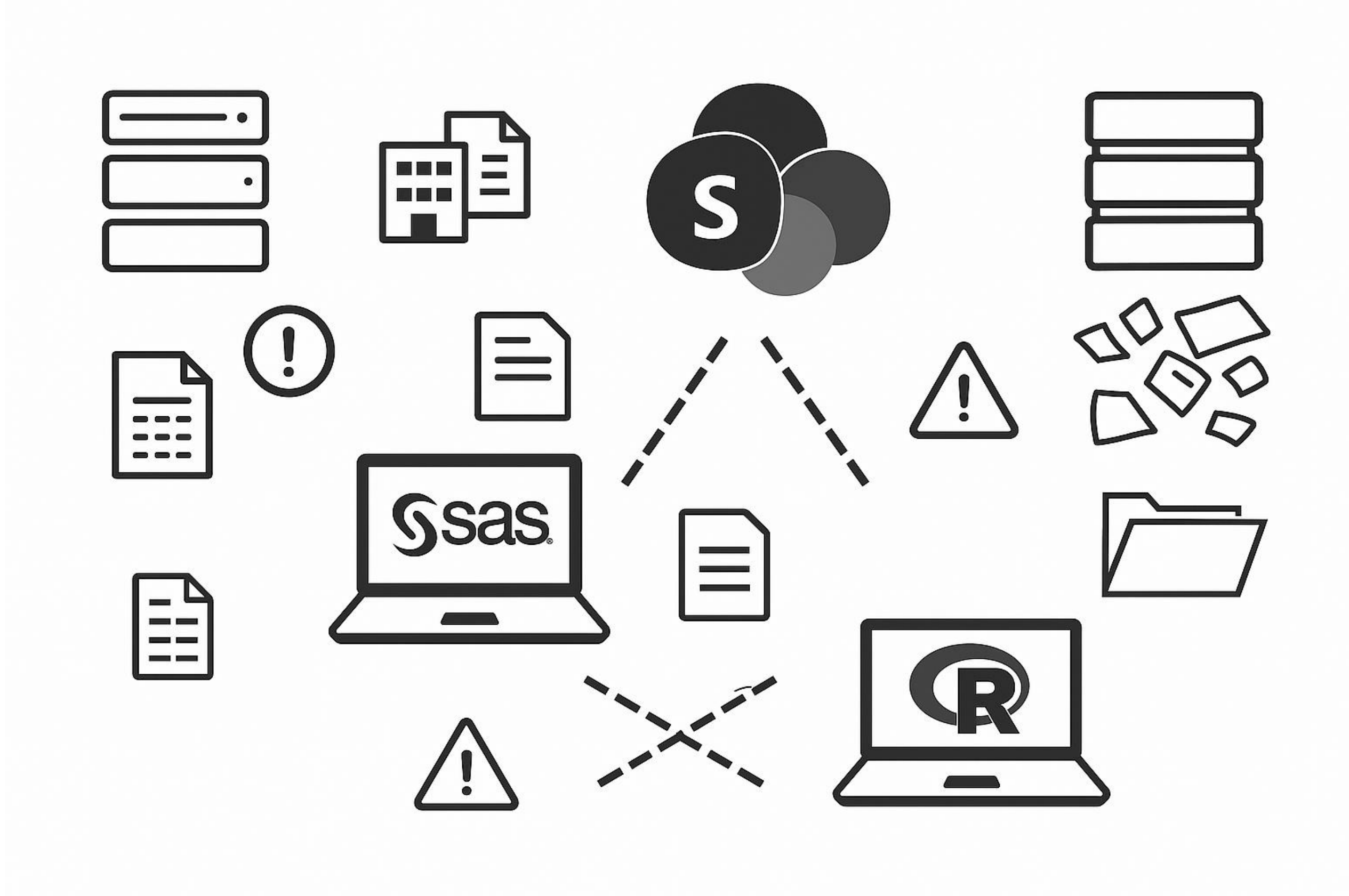
Vaibhav Kulkarni

Data & Bioinformatics Engineering Manager

Agenda

- | | |
|----|--|
| 01 | Challenge: Before the Data Fabric |
| 02 | Vision: Data Driven Science |
| 03 | Solution: The Right Tool for Every Task |
| 04 | Workflow in Action: DEV-TEST-PROD, Git, Azure DevOps |
| 05 | Practical Examples: Cross-Platform Synergy |
| 06 | Conclusions & Outlook |
| 07 | Q&A |

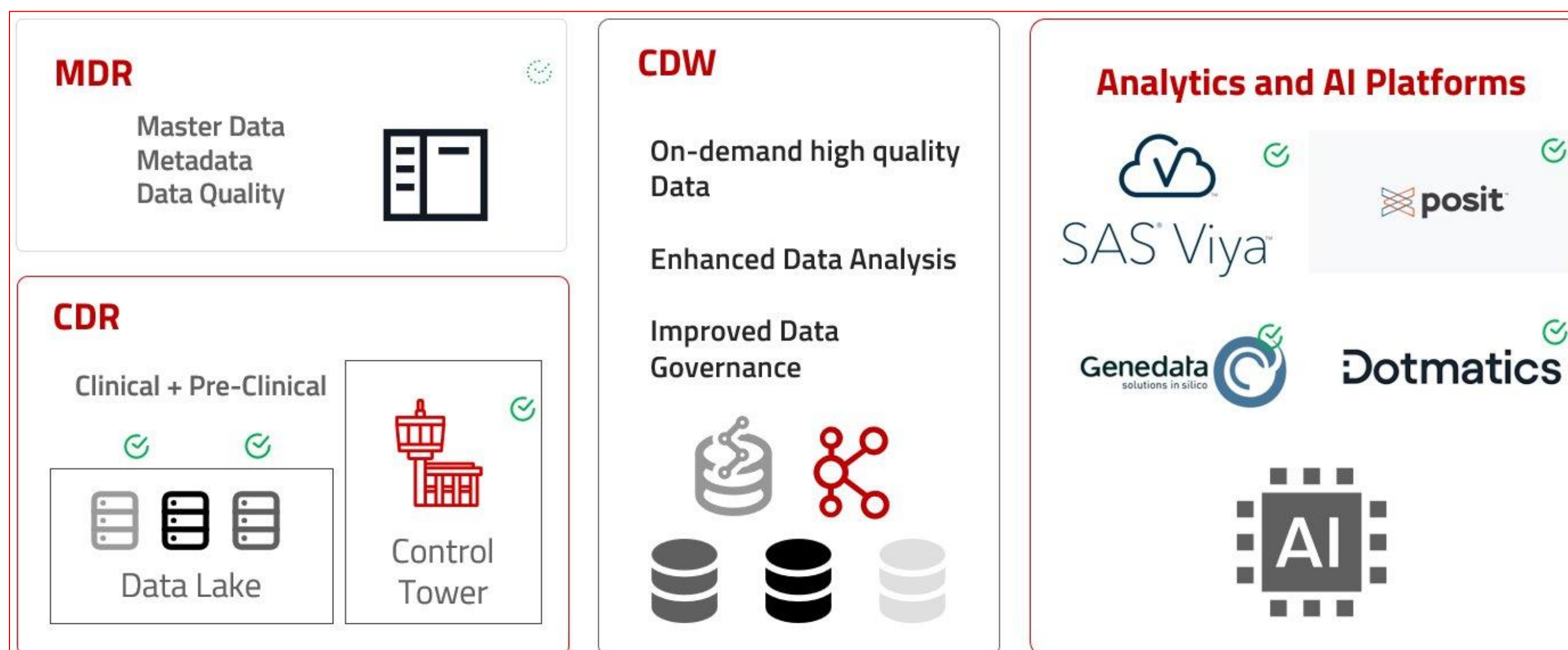
AD11: SAS Viya & Posit Team Integration: Git-enabled, AI-driven Clinical Reporting with Azure & Open-Source Technologies



- **Fragmented Landscape:** Disconnected SharePoint sites, local drives, partner systems
- **Uncontrolled Tools:** Local SAS & R installations on individual machines
- **Business Friction & Inefficiency:** Regulatory/partner packages took weeks to assemble
- **Compliance & Integrity Risk:** No validated source of truth, version control, or clear audit trail

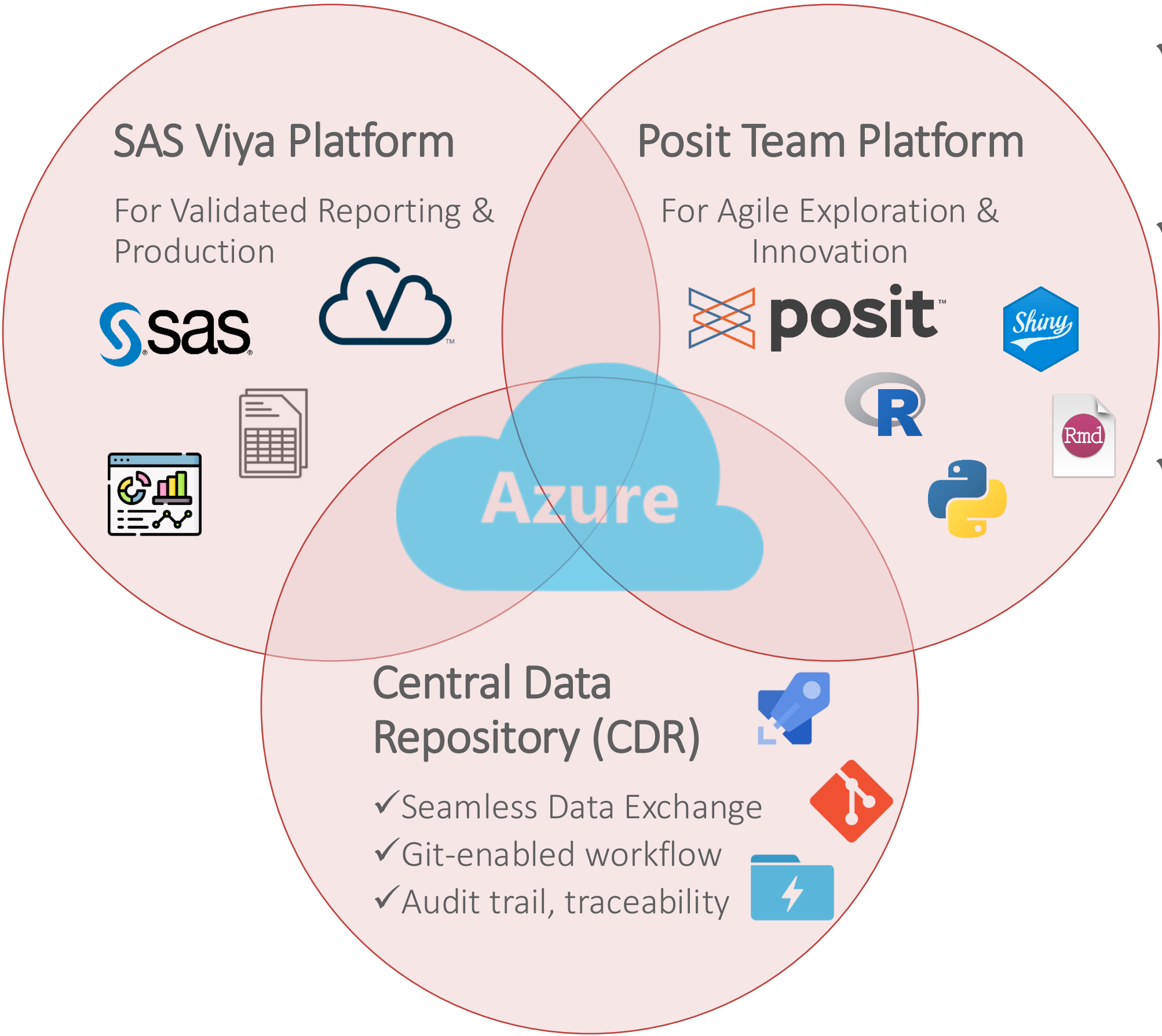
Vision: Data Driven Science

- Transform R&D data into a **unified, strategic asset**
- Secure, compliant, high-quality data to **reduce cycle times**
- Data Fabric foundation to make all data **FAIR** (Findable, Accessible, Interoperable, Reusable)
- **Four pillars:** CDR - MDR - CDW - Analytics & AI Platforms



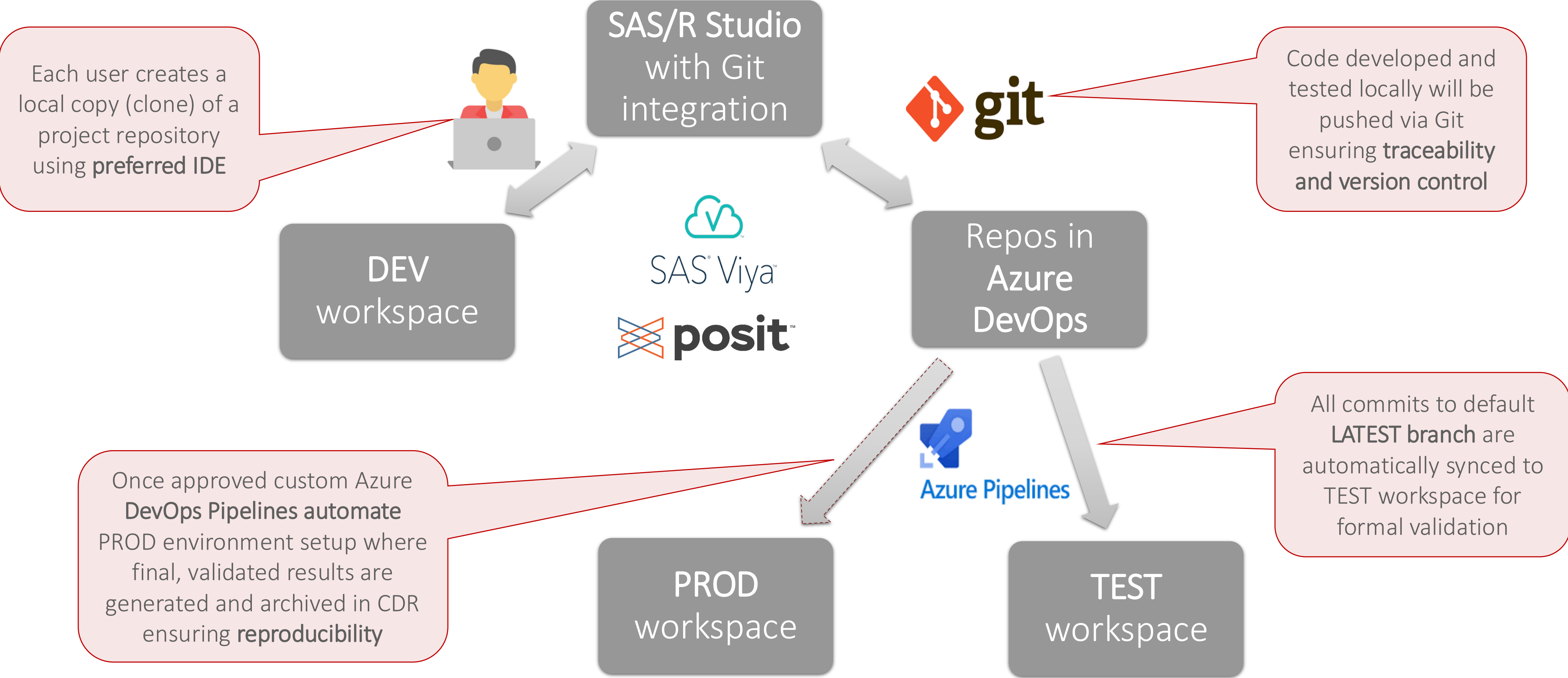
Solution: The Right Tool for Every Task

- ✓ **SAS Studio:** GxP-compliant TFL Generation
- ✓ **SAS Environment Manager:** Scheduling & Orchestration
- ✓ **SAS Visual Analytics:** Medical Data Review, Safety Surveillance & Signal Detection



- ✓ **Posit Workbench:** Agile R/Python Data Exploration
- ✓ **Posit Connect:** Sharing interactive dashboards & Shiny apps
- ✓ **Package Manager:** Governed GxP package repository

Programming Workflow in Action: DEV-TEST-PROD, Git, Azure DevOps



Example 1: Automated Data Processing & Reporting

Ingestion

- **Central Data Repository (CDR)**
 - eCRF/EDC data
 - External Vendor/Lab data

Processing

- **SAS Studio**
 - Transformation & enrichment
 - Internal data standards, metadata aligned via MDR

Orchestration

- **SAS Environment Manager**
 - Scheduled jobs for daily refresh
 - Automatic data load into CASLIB

Consumption

- **SAS Visual Analytics**
 - Standard reporting for medical review and surveillance
- **Posit Workbench + Posit Connect**
 - R/Python exploration & modelling

Example 2: Bridging the Gap - SAS Visual Analytics & Posit Connect Integration

- **Concept:** Embedding a highly-customizable R Shiny app directly into a SAS Visual Analytics dashboard.
- **Use Case:**
 - SAS VA provides validated, standardized dashboards for medical review and safety monitoring (the “What”).
 - Embedded R Shiny app enables interactive deep-dive analysis (the “Why”), e.g., dynamic patient profiles or complex biomarker plots.
- **Integration:**
 - Data-driven content object for embedding
 - SSO via Azure AD
 - Shared data foundation (CDR+CAS)
- **Value:** Governance of SAS + Flexibility of R/Python = Best of both worlds.

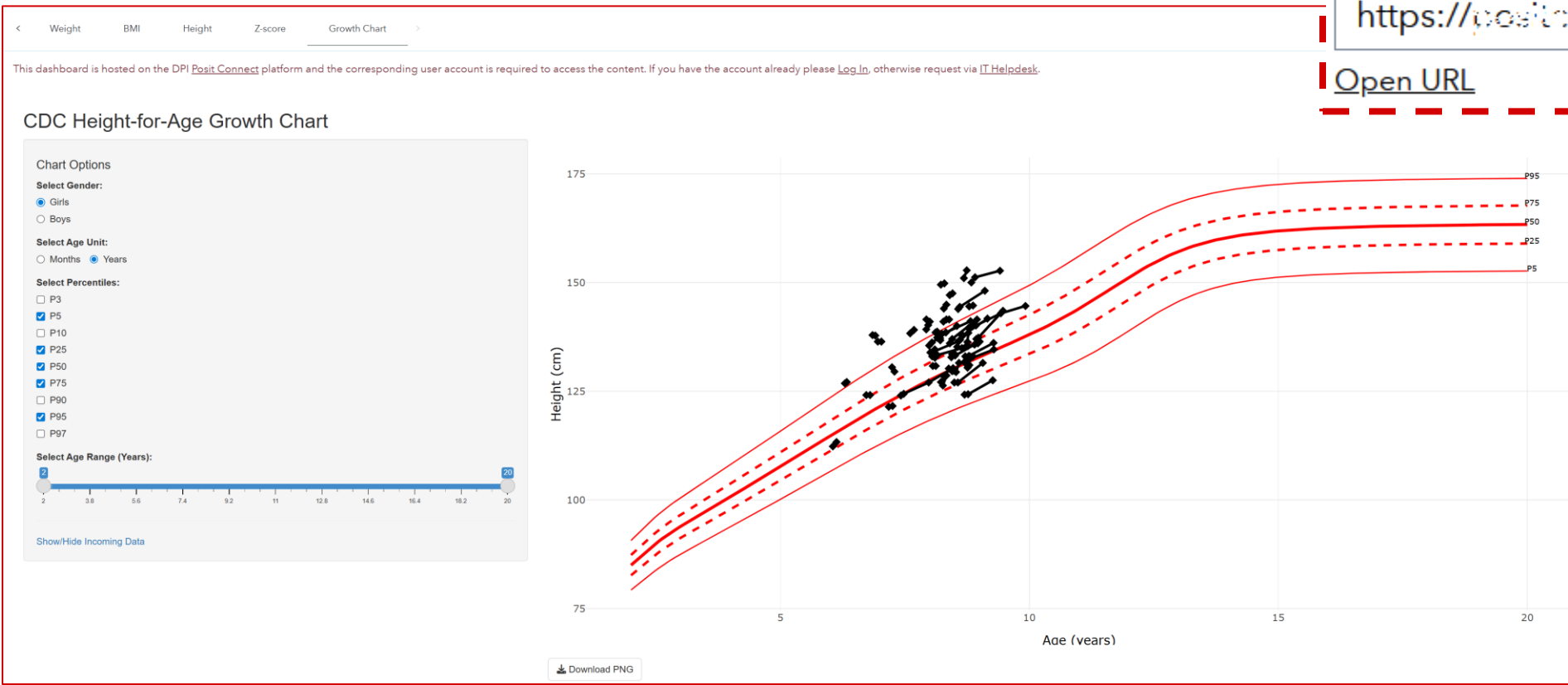


Web Content

URL:

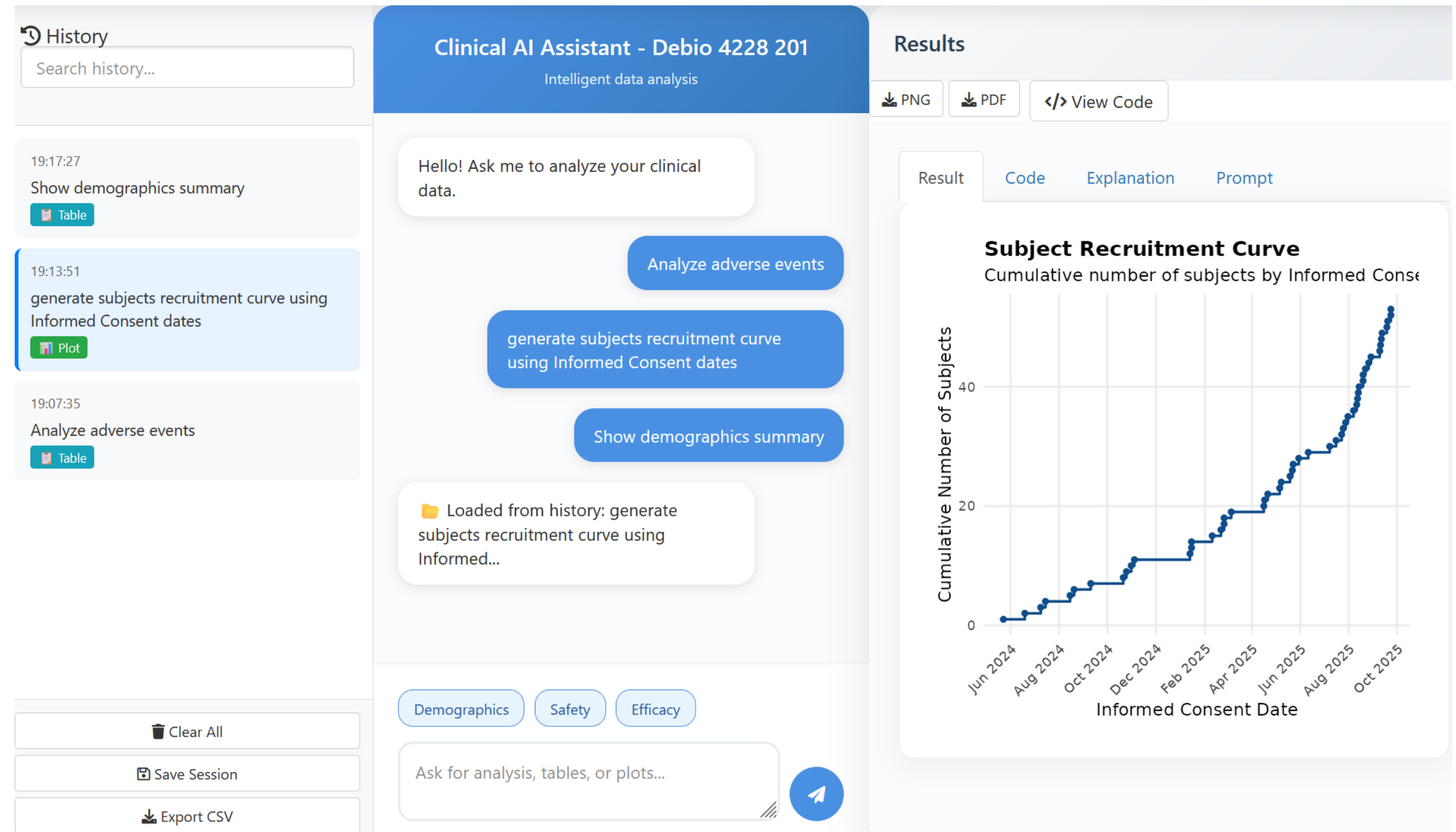
https://positconnect.debiopharm.com/CDC_

Open URL



Example 3: R Shiny App with AI Chatbot Extension (self-service analytics)

- R Shiny app with AI chatbot developed as an extension to existing SAS VA reports
- **Non-programmer users** can query, explore, and visualize data using the AI chatbot
- AI generates R code, which is executed on Posit Connect - ensuring **traceability and reproducibility**



Compliance by Design: Our GxP Framework

- ✓ **Unified Data Fabric is Essential:** Foundation for data-driven science and regulatory compliance.
- ✓ **Integration > Replacement:** SAS and open source are complementary, not mutually exclusive.
- ✓ **Git-Centric Workflow:** Enables both agility and compliance - traceability, version control, audit trail.
- ✓ **Automation & AI are Ready:** CI/CD, code review, and AI tools (e.g., Copilot, chatbots) can be safely (but with caution) applied in GxP settings.
- ✓ **Change is Cultural:** Success depends on cross-functional collaboration and user adoption, not just technology.

The Future of Clinical Reporting is Integrated, Collaborative, and AI-Driven

- **Towards Predictive & Self-Service Analytics:** Expand AI/ML capabilities for deeper insights and automation.
- **Empowering Clinical Teams:** Develop more self-service tools for non-programmers - democratizing data access.
- **Scalable, Cloud-Native Infrastructure:** Continue leveraging Azure and open standards for flexibility and growth.
- **Continuous Compliance:** Evolve governance frameworks to keep pace with technology and regulatory change.
- **2027 Vision:** Realize a fully integrated, AI-enabled, data-driven ecosystem supporting faster, efficient, and more innovative drug development.

Questions?

Maksym.Prykolota@debiopharm.com

Manager Statistical Programming
Biostatistics & Data Management

Debiopharm International SA

Chemin Messidor 5-7
1006 Lausanne
Switzerland

Vaibhav.Kulkarni@debiopharm.com

Data & Bioinformatics Engineering Manager
Digital & IT