## [PHUSE EU Connect 2023 – SD02]

# Driving better health for more people SAS Life Science Analytics Framework

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## **5 Key Technical Areas for Clinical Trial Management**

The SAS Life Science Analytics Framework delivers everything your organisation needs to cover the five main technical areas that are fundamental for clinical trials management:





#### Clinical data repository:

A central store with a rigorous governance framework built in, ensuring full version control for data assets and role-based access management for users to provide complete auditability. All data and metadata for each clinical trial is held in one secure, tamper-proof environment and data lineage is traceable from end to end.

#### <u>Statistical computing</u> environment:

A powerful, open analytics engine that empowers statisticians, data scientists and programmers to write code and run analyses in SAS, R or Python. They can also connect seamlessly to external analytics environments such as SAS Vlya to run machine learning models and integrate the results back into the clinical data repository.

### Collaborative workflows:

3

A GxP-qualified cloud platform that teams and partners can access securely anywhere and from any device, which integrates seamlessly with internal and third-party workflow management tools simplifying handoffs between internal and external stakeholders and making it easy to adapt to new clinical trial methodologies.



**Regulatory reporting:** 

environment with rigorous

data and analyses are

controls to ensure that both

reproducible, together with

tools to create and manage

regulatory submissions that

standards and formats.

comply with all relevant data

A fully governed

documented and





#### Management insight:

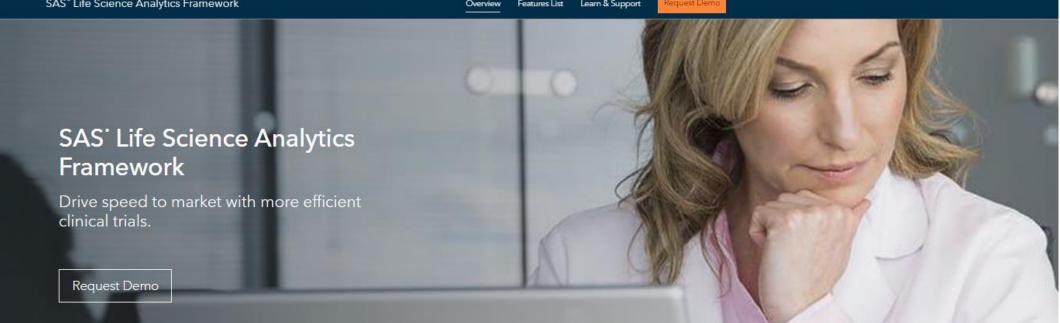
Powerful dashboards and reporting that enable users in different roles-from data scientists to trial managers and executives-to view the data that's relevant to them in real time. this helps to identify and resolve issues quickly and maintain momentum in clinical trials to get new medicines to market faster.





SAS\* Life Science Analytics Framework

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SAS Life Science Analytics Framework is positioned to be the leading clinical development system delivering tracked storage of biometric data, clinical metadata, study specifications, and process controls enabling data **preparation** and **analytics** program development and execution.





#### COLLABORATION

Simplify handoff between all stakeholders – internally and externally.

#### DATA GOVERNANCE

Single source of the truth. Reduction in risk managing clinical trial data.

FLEXIBLE MODERN FRAMEWORK

Interoperability with other solutions.

#### TIME TO VALUE

Near real-time access to data, driving speed to insights and business decisions.

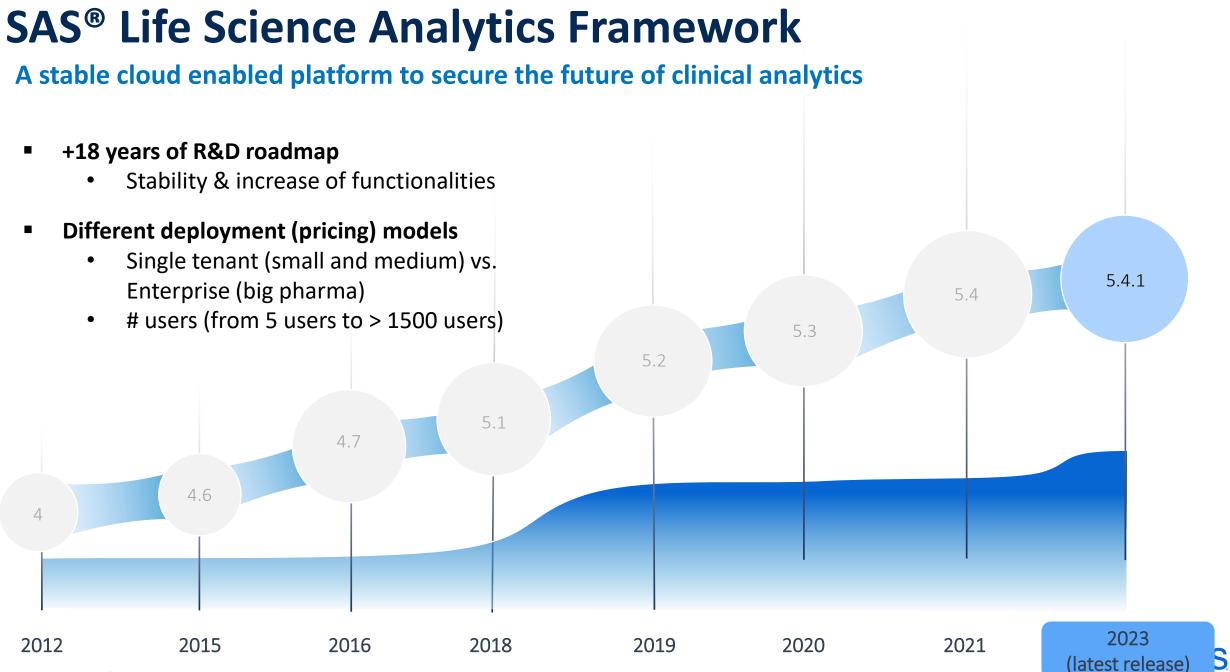
"Hours instead of Days"

### SAS Life Science Analytics Framework and Azure



SAS has more than 20 years of expertise managing SAS industry solutions in GxP qualified environments in the private SAS Cloud. Microsoft Azure is the cloud platform of choice for many life sciences customers. The perfect combination of cloud computing and clinical experience to drive valuable insights from clinical data using industry-grade analytics.





## **CUSTOMER BENEFIT**

### **Ensures regulatory compliance**

Controlled **validated environment**, with complete **audit history** and robust **version controls** for managing the change history on all files.

### **Internal & External Collaboration**

Workflow capabilities, the content repository and permission models allows customer to collaborate internally, but also to share data and analysis with CROs.

It supports business processes and drives automation.

#### Collaboration DM, Biostats, PV, RA, Medical, CROs, nonclinical. other offices... Open sources analyt Data sources ١. eCRF SDTM SAS® Life Science "Out of the box" Ū, **Analytics Framework** interfaces **S**sas Laboratory RWD PINNÁCLE<sup>21</sup> data **⊞medidata** GxP JReview 📲 Audit trail Version control Veeva Web browser access E-signature

## **Open & Flexible Framework**

With an **interactive programming editor**, users can program in the environment of their liking (SAS (display manager), R, Python, or others). The **system is open to integrate** with 3<sup>rd</sup> party solutions via the **use of LSAF Remote Desktop Connection and rich JAVA and SAS Macro APIs.** 



## How to be more Efficient

Using Jobs & Manifest Files & AuditTrails

- 1 Jobs, R Integration, Audit trail & ...
- A Create a Job Integrating SAS
- B Benefit from Manifest File using R
- C Audit trails
- D Health Status Check



.....

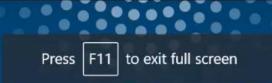
## How to be more Efficient

**Using Workflows & Automation** 

2 – Workflow to retrieve data from RAVE and Automate SAS Jobs with no manual intervention.

- A Schedule a Job to retrieve Data from RAVE
- B Automatically all Data are refreshed
- C Automatically SAS Jobs are Triggered
- D Emails are sent for Success / Failure
- E Everything is tracked in Audit Trail



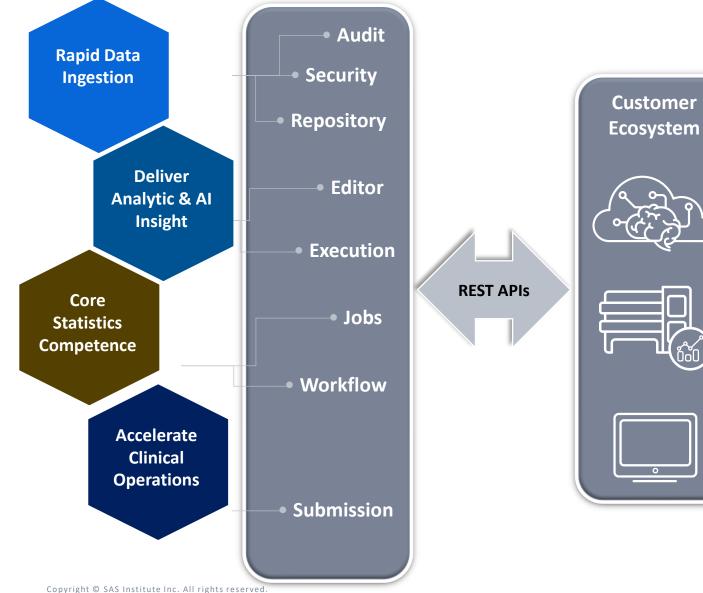


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## The New SCE of the Future : Modular and Open Design



- Modularized to meet your needs
- Open architecture for integration and orchestration
- Regulatory compliant

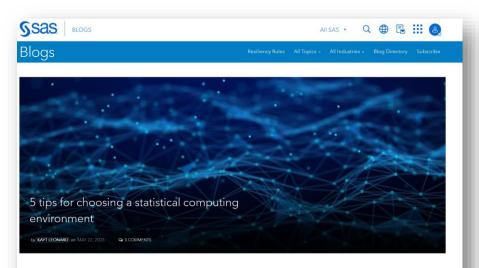
• Scalability with Viya



## PHUSE EU Connect 2023 in Birmingham

Key THEME: Statistical Computing Environment (SCE) Of the Future

- 1. First things first? It's the about data security
- 2. It's secure, but is it available? Openness is key.
- It worked! But reproducing it – and explaining it – is a challenge
- 4. It's great, but no one can use it
- 5. Pick your statistical computing environment for now and for the future



When you think about life-saving technology, does a statistical computing environment come to mind? Statistical computing environments (SCE) are critical in accelerating scientific discoveries by enabling researchers to manage, process and analyze data efficiently and compliantly, maintaining the utmost regulatory integrity.

As life sciences research generates increasingly large and diverse datasets, powerful statistical computing environments are essential for extracting meaningful insights and advancing our understanding of biological systems. By providing the necessary computational tools and infrastructure, SCEs empower researchers to uncover clinically relevant correlations, identify potential therapeutic targets and drive the data driven development of new diagnostics and treatments.

But with so many SCEs in the market, how do organizations know they're working on the most effective, productive platforms? How can they trust the outputs and analytics while needing to produce tangible therapeutic developments that improve patients' lives worklwide?

Just like the diversity of data sets we see when analyzing molecules and therapeutics, a million different endpoints could answer this question. But to get the answers with the least amount of severe adverse events (see what we did there?), here's five things that leaders need to think about when choosing the statistical computing environment that they'll trust their data to:

https://blogs.sas.com/content/sascom/2023/05/22/ch oosing-a-statistical-computing-environment/



## **Thank You**

