

Scaling for the Future: Transitioning from In-House to Commercial Statistical Computing Environments (SCE)

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Agenda

- Background / Reasons for Change
- Key Drivers for Transformation
- Vendor Selection Process
- Proof-of-Concept (PoC)
- Selected SCE Platform Overview
- Implementation Strategy
- Driving SCE Adoption
- Anticipated Benefits
- Conclusion



Background / Reasons for Change



Legacy Design:

Built on outdated assumptions predating modern tech standards and operating models.



Rising Maintenance Burden:

Increasing operational effort from ongoing validation, upgrades, and support.



Manual Workflows:

Reliance on manual or semi-automated steps causes variability, longer cycles, and extra quality controls.



Evolving regulatory expectations:

Evolving expectations demand more robust, automated processes to ensure compliance.



Need for Modernization:

A cloud-ready architecture is essential to enable scalability, standardization, and automation.

Key Drivers for Transformation

- **Support for a multi-language analytics environment**

Enable SAS, R, and Python in a governed analytics environment to support flexibility and diverse skill sets.

- **Automation, traceability, and reproducibility**

Strengthen existing workflows with increased automation to further support traceability, reproducibility, and inspection readiness.

- **Scalability and performance enabled through cloud technologies**

Use cloud technologies to deliver scalable performance and efficient compute utilization.

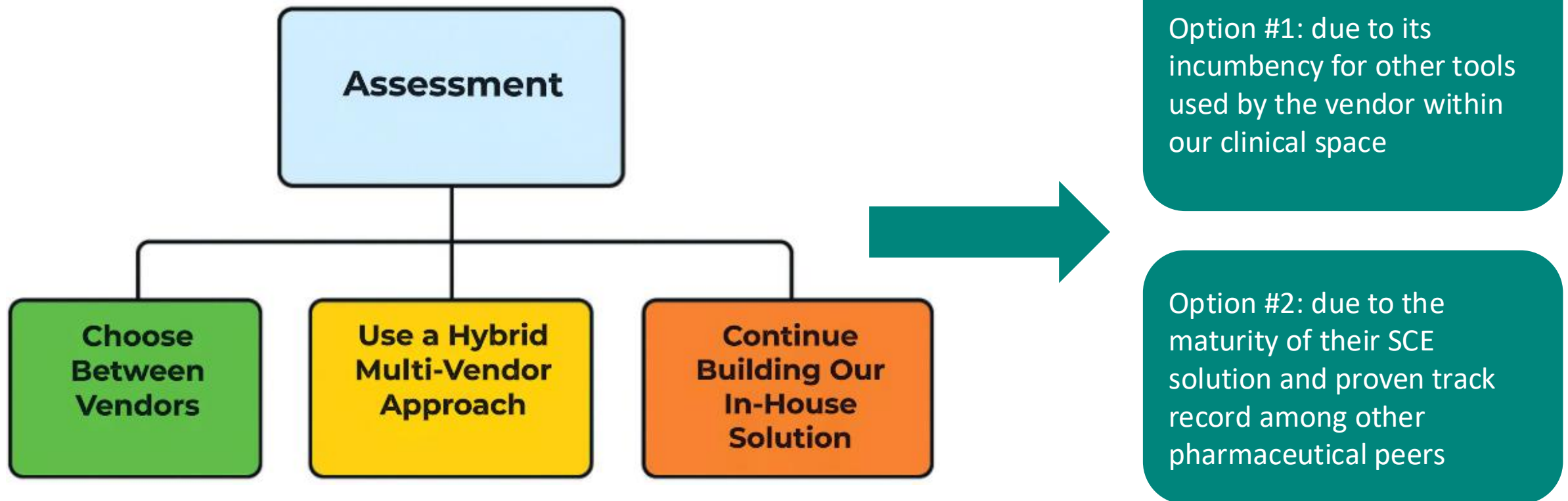
- **Alignment with modern tools and industry standards**

Adopt modern development tools and data standards for version control and collaboration.

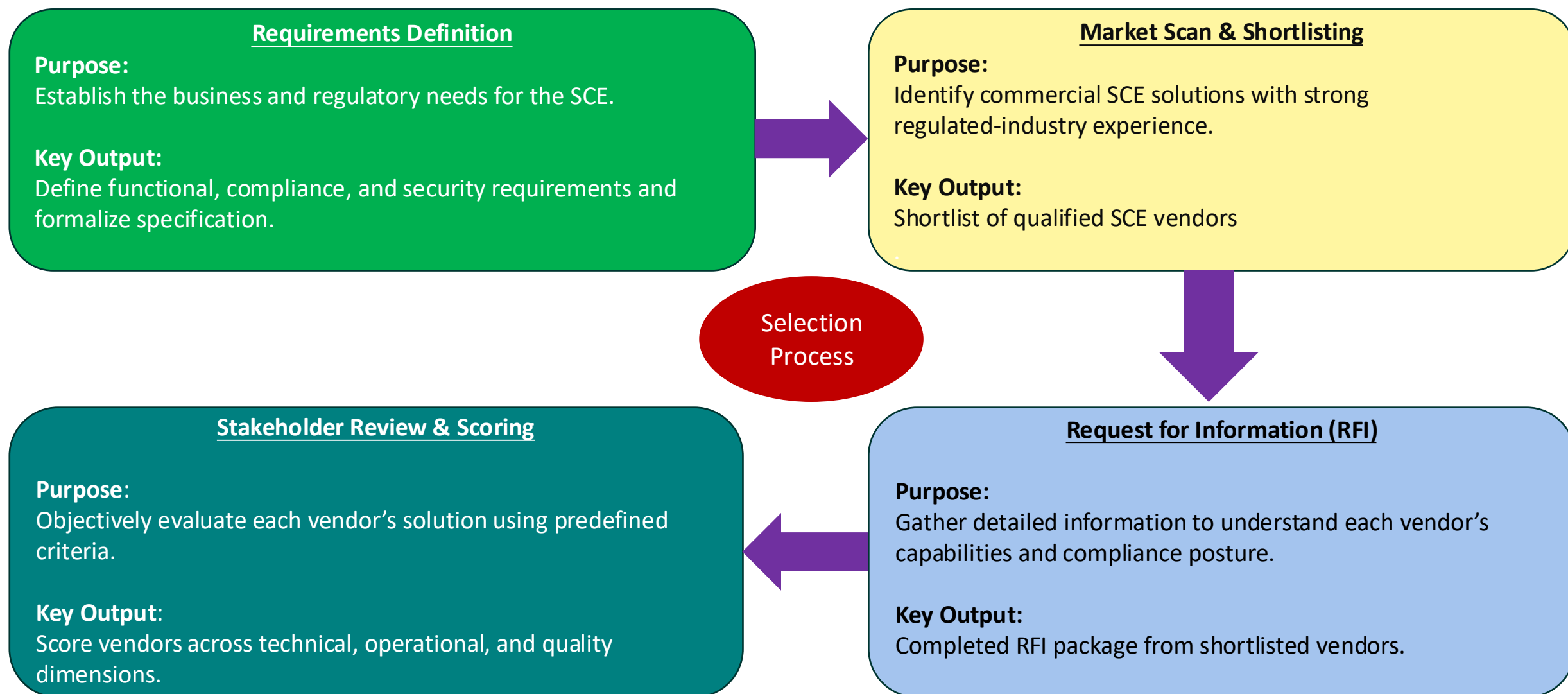


Vendor Selection Process

- Conducted an assessment in collaboration with a consulting firm
- Results identified two potential options for further diligence

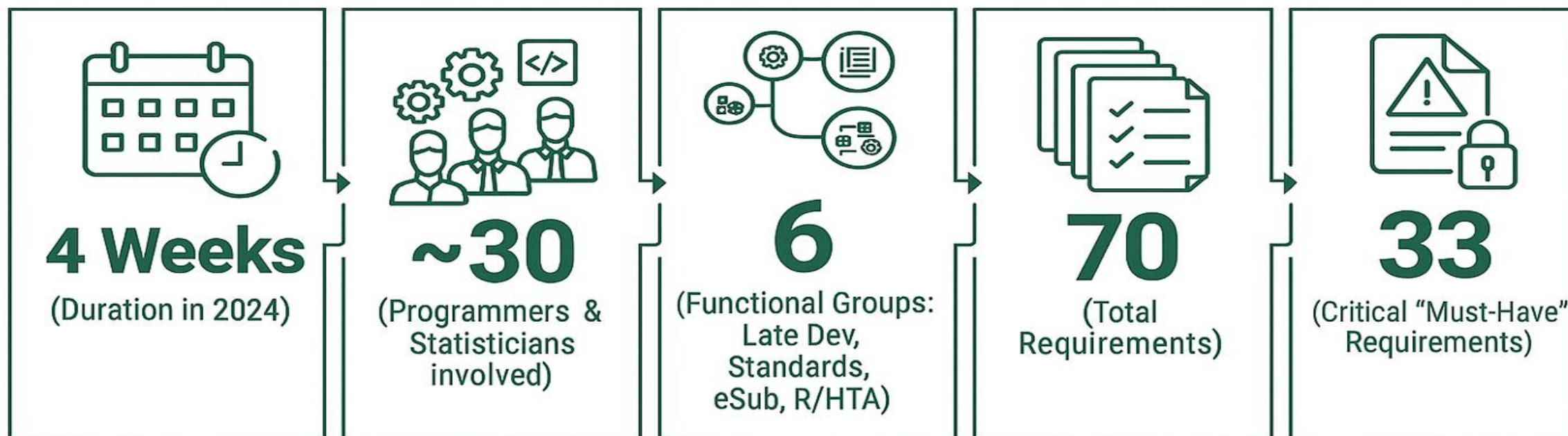


Vendor Selection Process



Proof-of-Concept (PoC)

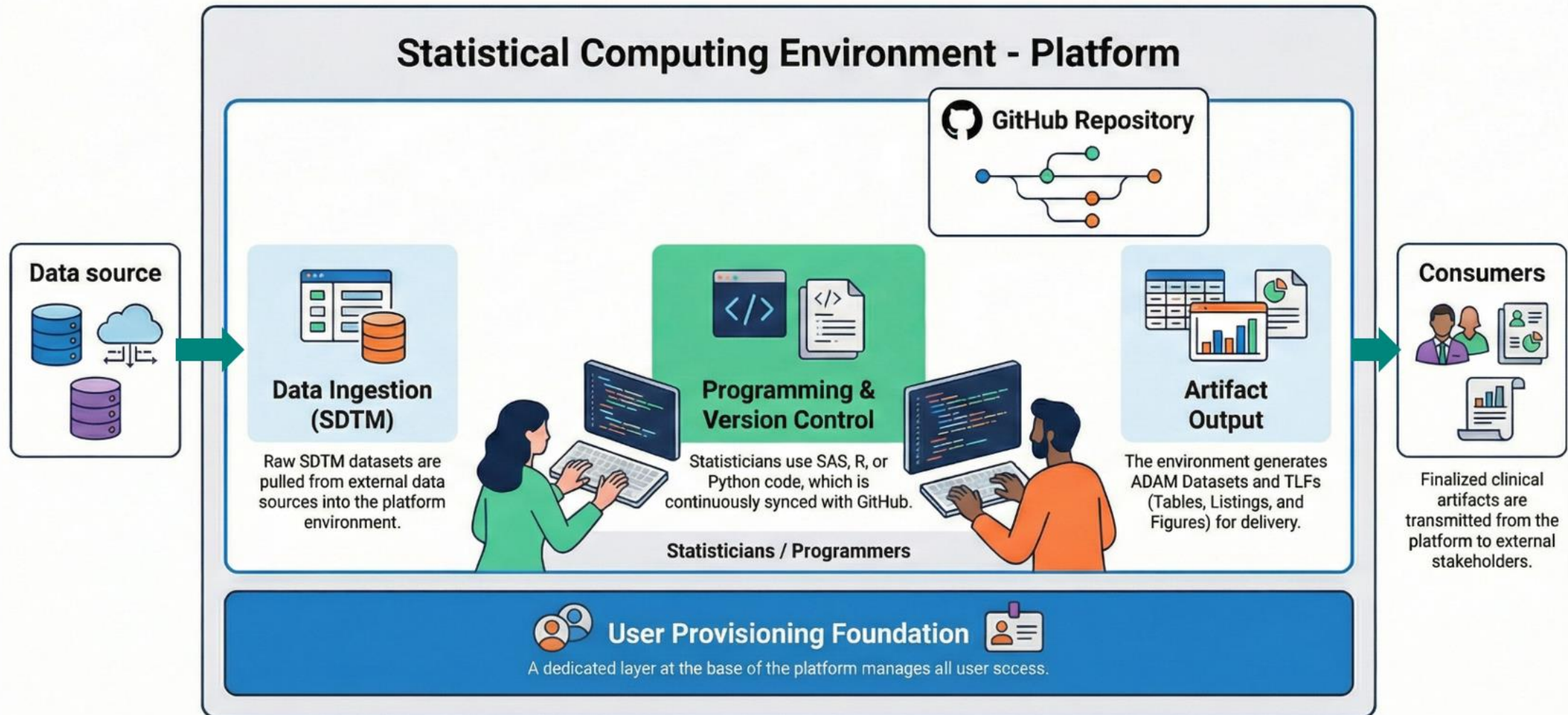
- Hands-on proof-of-concept was conducted with the two selected vendors from the assessment
- Necessary to test the SCE tool and not base acceptance solely on vendor demos or discussions
- Important to perform testing for key capabilities and ensure the SCE delivered on these points



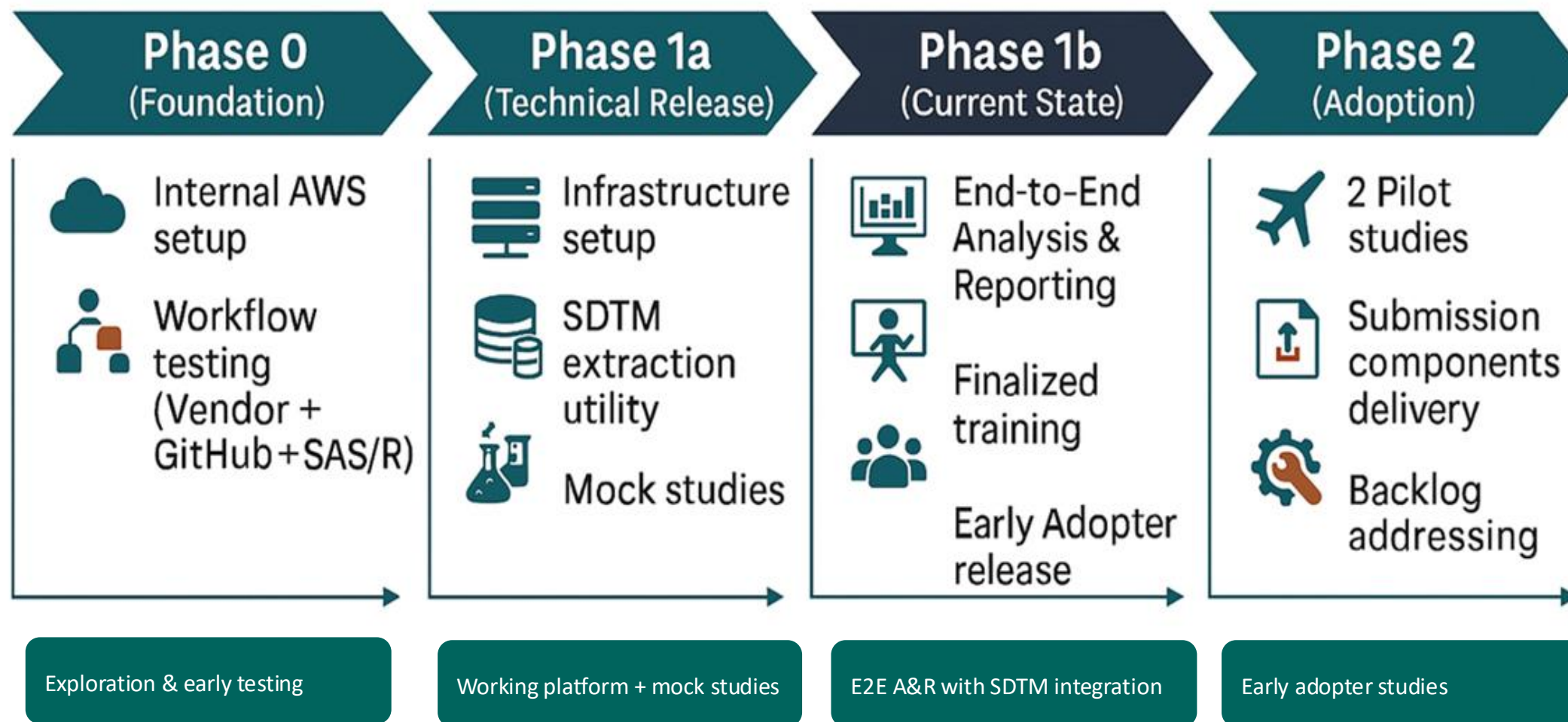
Proof-of-Concept (PoC)

Category	Met	Partially Met	Not Met	Not Tested	On Roadmap	Technical	Total
Backup, Restore and Archive							4
Dashboarding							3
Ingest and manipulate multiple data sources							3
Integrated with upstream and downstream platforms							3
Intelligent Automation							3
Jobs scheduling and prioritization							3
Language agnostic solution							1
Security & access control							3
User Experience; performance and scalability							6
Workflow process management							4
Grand Total	10	6	6	5	3	3	33

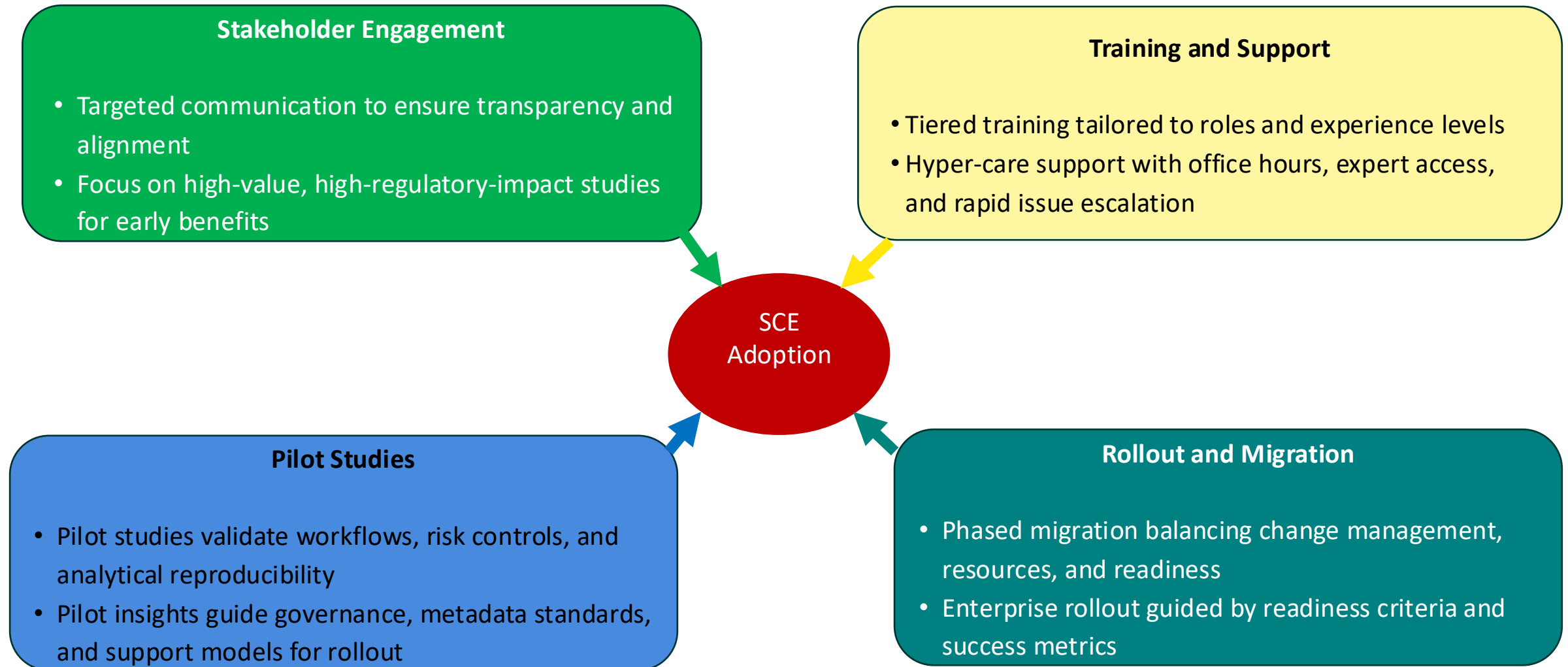
Selected SCE Platform Overview



Implementation Strategy



Driving SCE Adoption: Strategy, Governance, and Scaled Implementation



Anticipated Benefits of the New SCE

Compliance & Audit Readiness



Automated traceability and reproducibility ensure the environment is always inspection-ready.

Scalability & Sustainability



Cloud-native elastic compute and storage resources dynamically scale to handle "mega studies".

Efficiency & Productivity



Intelligent automation and tool integration reduce manual handoffs and accelerate analysis timelines.

Enhanced User Experience



A modern, feedback-driven interface supports multi-language workflows (SAS, R, Python) in a single platform.

Strategic COTS Value



Reduced maintenance burden allows the organization to leverage vendor-led innovation and industry standards.

Conclusion



Transitioning from legacy in-house SCE to a vendor-based solution supports modernization and enterprise value.



Foundational capabilities established; early phases informed process design and workflows.



Pilots will validate end-to-end workflows, compliance (traceability & reproducibility), integrations, and performance.



Future focus: expand automation, strengthen analytics (including AI where appropriate), and optimize workflows.



Learning Labs and scenario-based sessions will refine training, workflows, and guidance; adoption effectiveness will be assessed.