

Enabling the End-to-end Data Pipeline with the illuminate Clinical Data Cloud

16 Nov 2022

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Agenda

- Intro and Context-setting
- Data Flow and Architecture
- Feature Set / Demo
- Q&A

illuminate[®] SCE – the ‘Why’

People come to us when they are looking to:

- Have a validated, compliant, audit-ready environment.
- Maintain version control of programs and outputs.
- Manage program development lifecycle.
- Gain access to all data & metadata.
- Trigger programs to execute upon updates to data.
- Increase efficiency of statistical programmers.
- Track biostats tasks automatically.
- Automatically deliver listings to end users.
- Gain flexibility to develop in SAS, R, or Python



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illuminate[®] SCE – the ‘What’

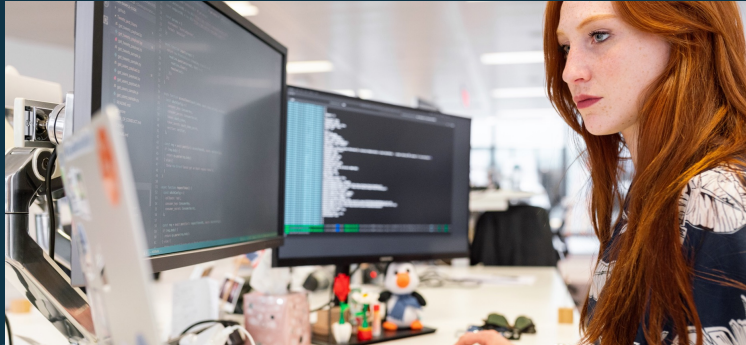
Goals

- Provide a validated environment for demonstrating rigor in data processing and statistical analysis.
- Leverage the strengths of the illuminate platform:
 - ✓ Integrated data and metadata
 - ✓ Automation engine
 - ✓ User access control and security
- Extend illuminate to support biostatistics and stat programming.



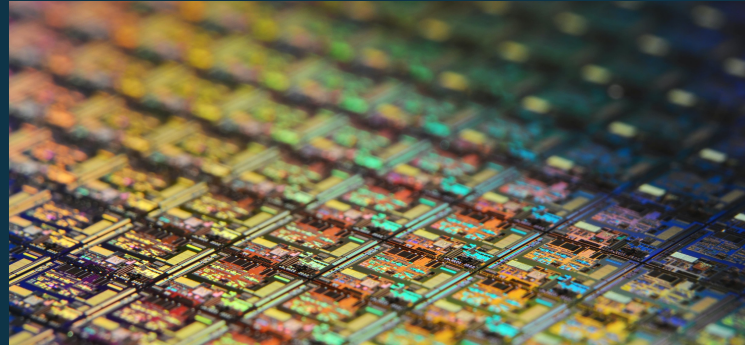
illuminate SCE – the ‘How’

Foundation



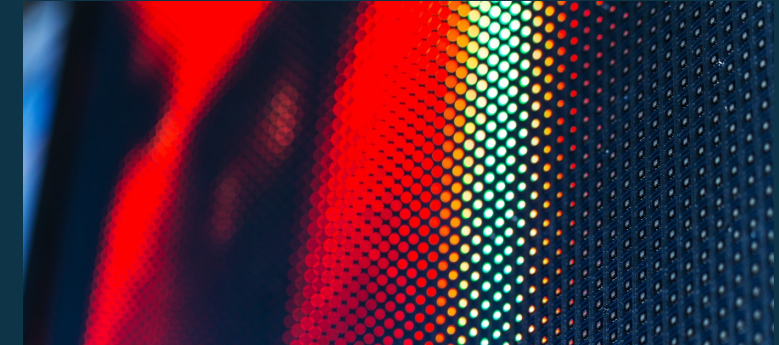
- **Program Development**

- Full version control and access management
- Development lifecycle workflows
- Customizable folder structure within and across studies
- Library of reusable code snippets, macros, and functions
- Intelligent editor with auto-complete and automation of common tasks



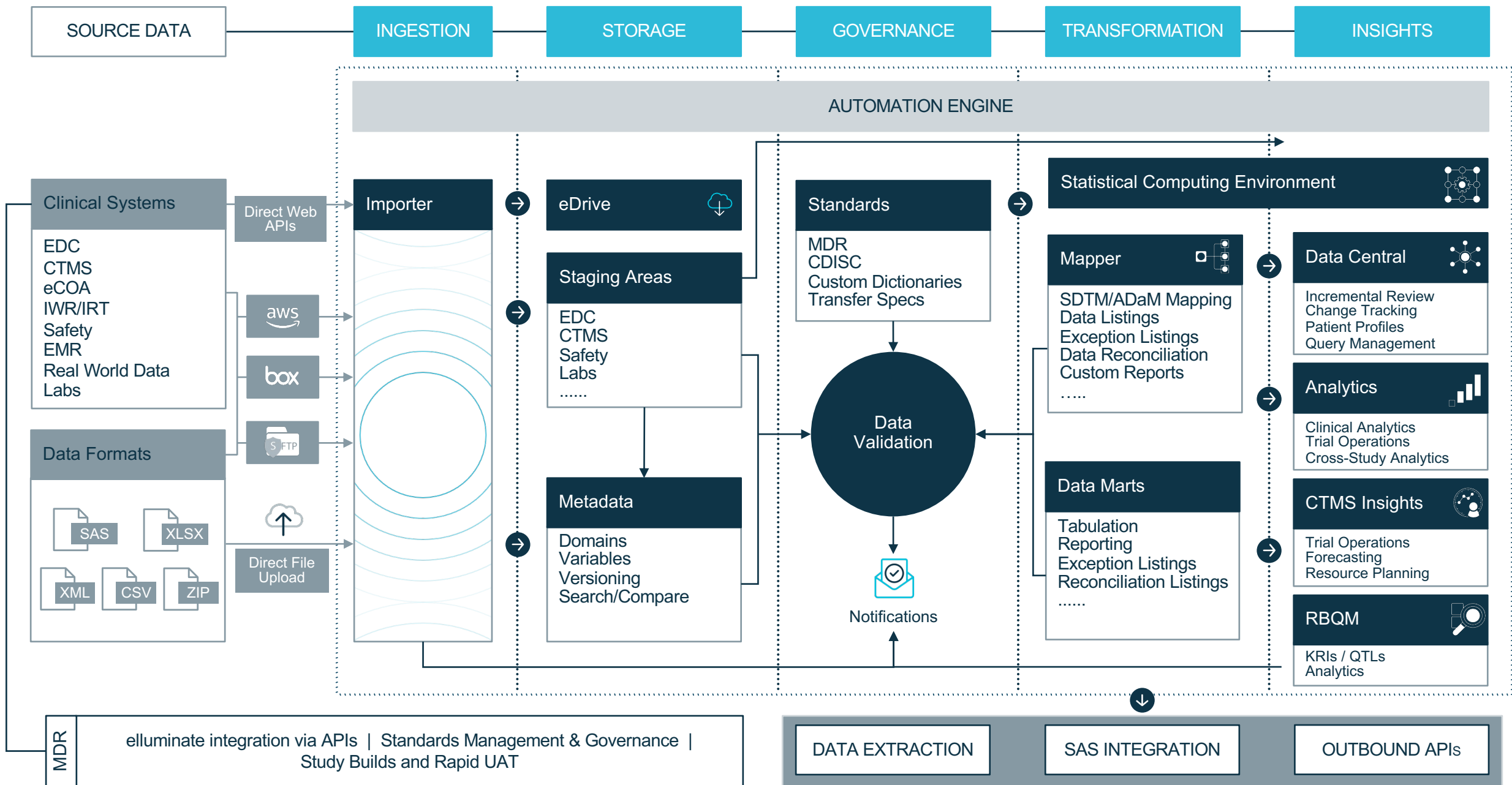
- **Execution**

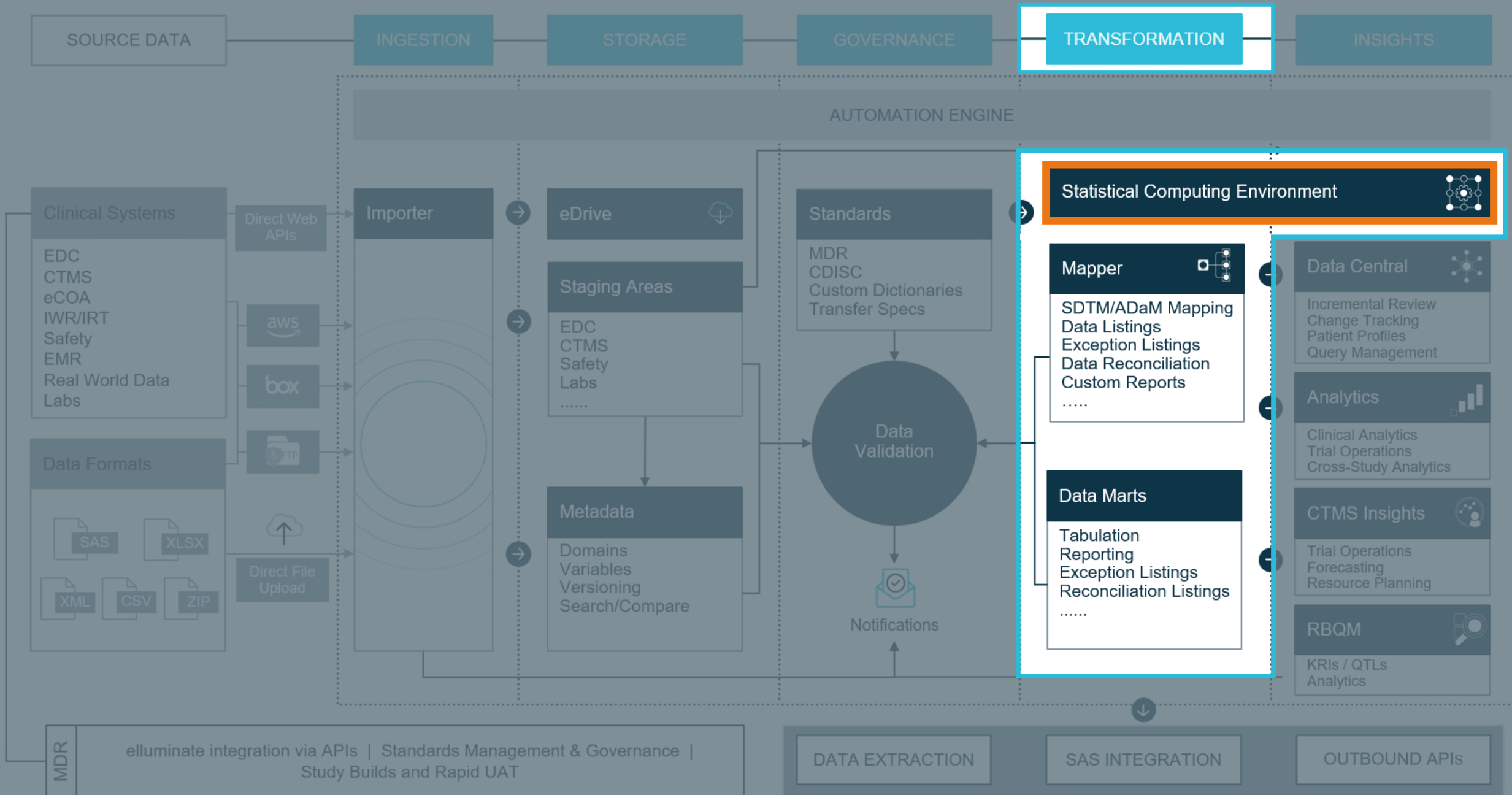
- Integrated compute environments for SAS, R, and Python
- Support for package / library validation
- Interactive real-time results or scheduled batch execution
- Log checking and display of results
- Full audit trail and reproducibility of results

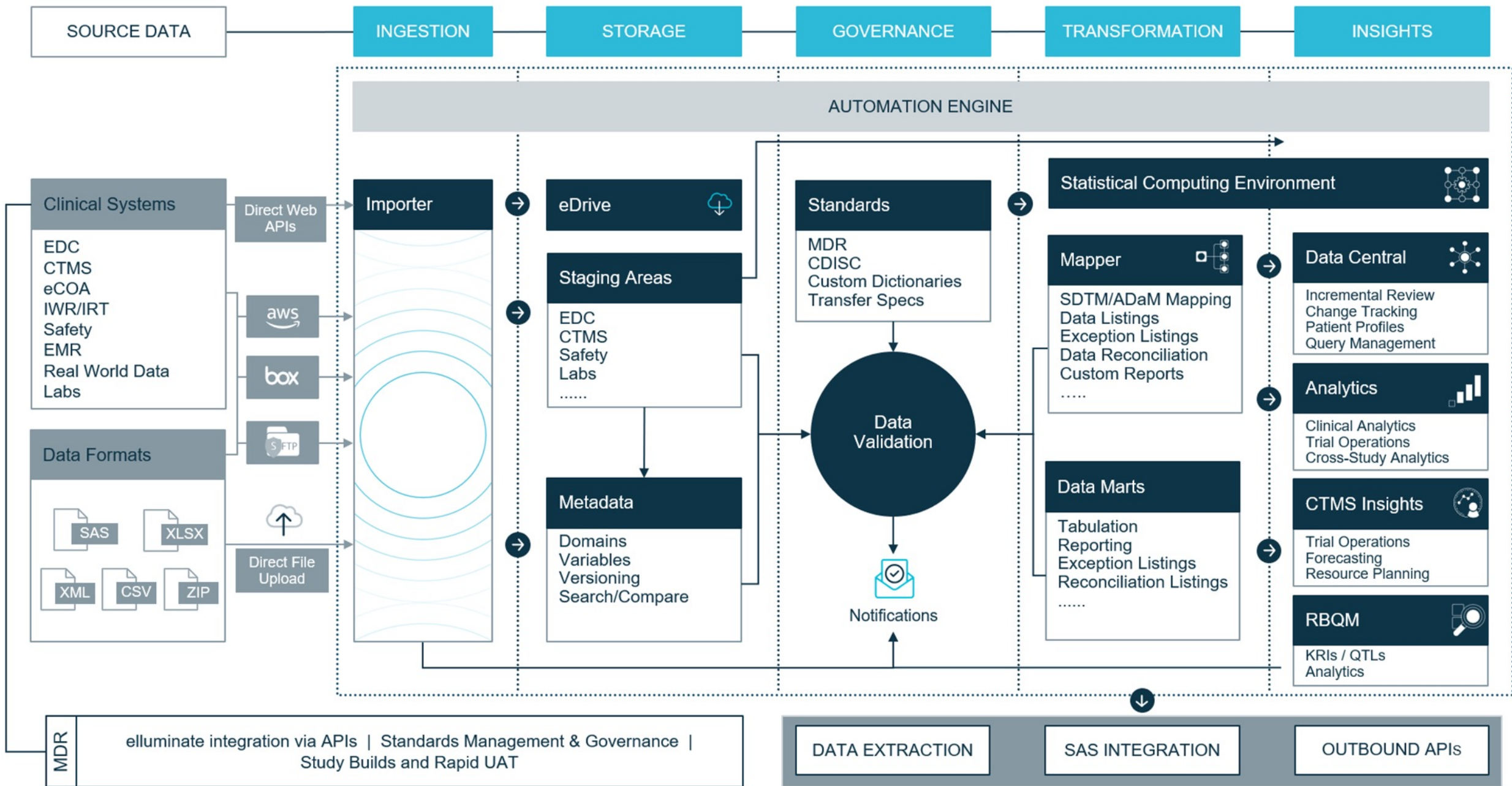


- **Automation**

- Dependency tracking for both data and inherited code
- Automated execution of programs based on data refresh
- Impact analysis and notification of data and structural changes
- Auto-creation of programs based on configurable templates
- Data flow visualization from source to output







Traditional SAS Environment vs Platform Approach

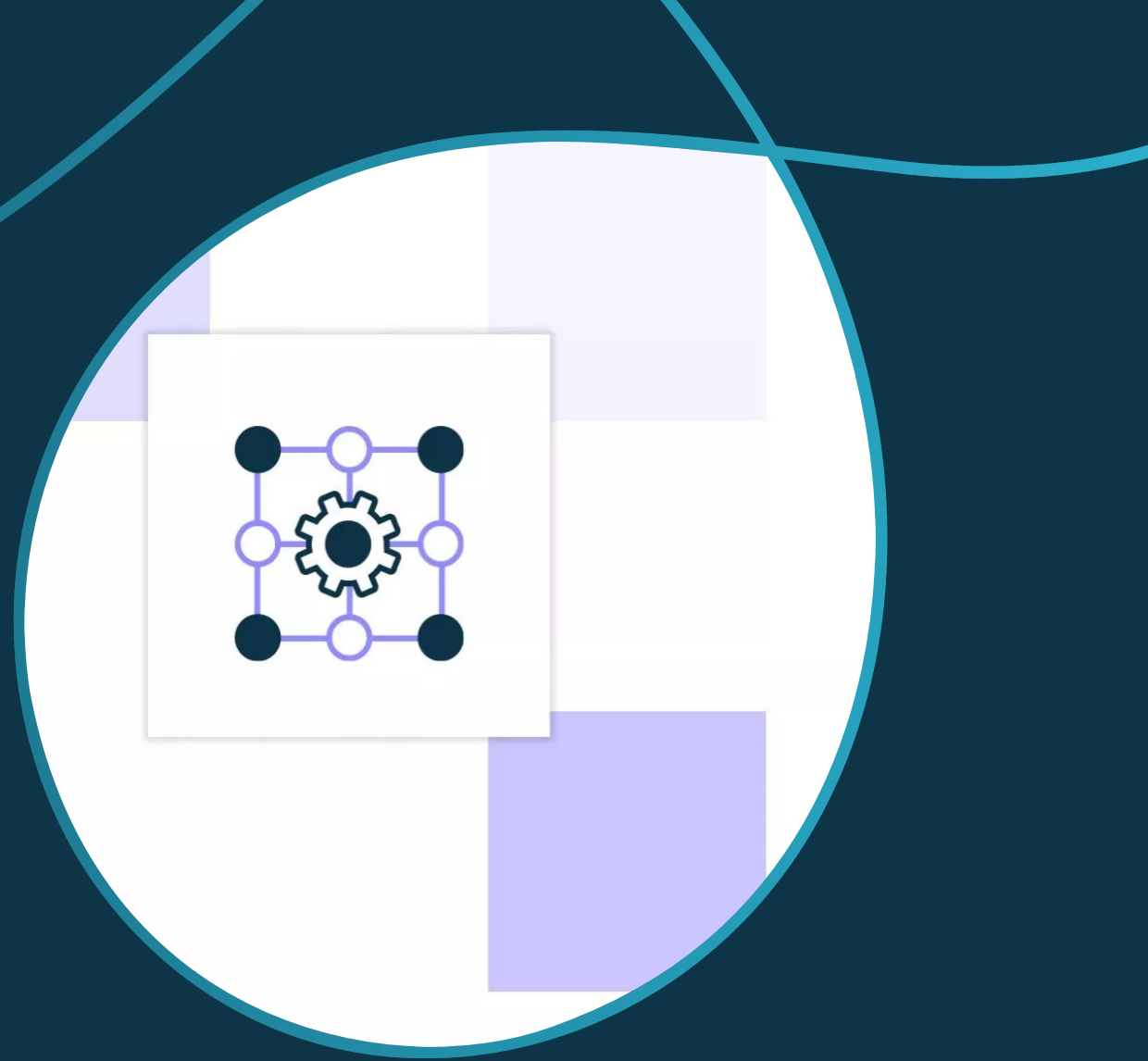
STANDALONE COMPUTE ENVIRONMENT(S)

- **Duplication of data in multiple locations**
 - Additional cost
 - Increased time for data migration
 - Concerns with data synchronization
- **Lack of programming rigor**
 - Additional systems for version control
 - Separate manual tracking documents
- **Inflexibility in meeting future needs**
 - Cost and time to add computing capacity
 - Separate solutions for adding multiple language support (SAS, R, Python, etc.)

SCE WITHIN THE illuminate[®] PLATFORM

- **All data and metadata in one location**
 - Reduced storage cost
 - Data can be analyzed in place
 - Programmers always have current data
- **Built-in tools for programming processes**
 - Version control is part of the platform
 - Fully automated comprehensive audit log
- **Future-proof and scalable**
 - Compute servers can be added to meet needs
 - Support for multiple languages and easily extensible architecture

Demo



Thank you

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