

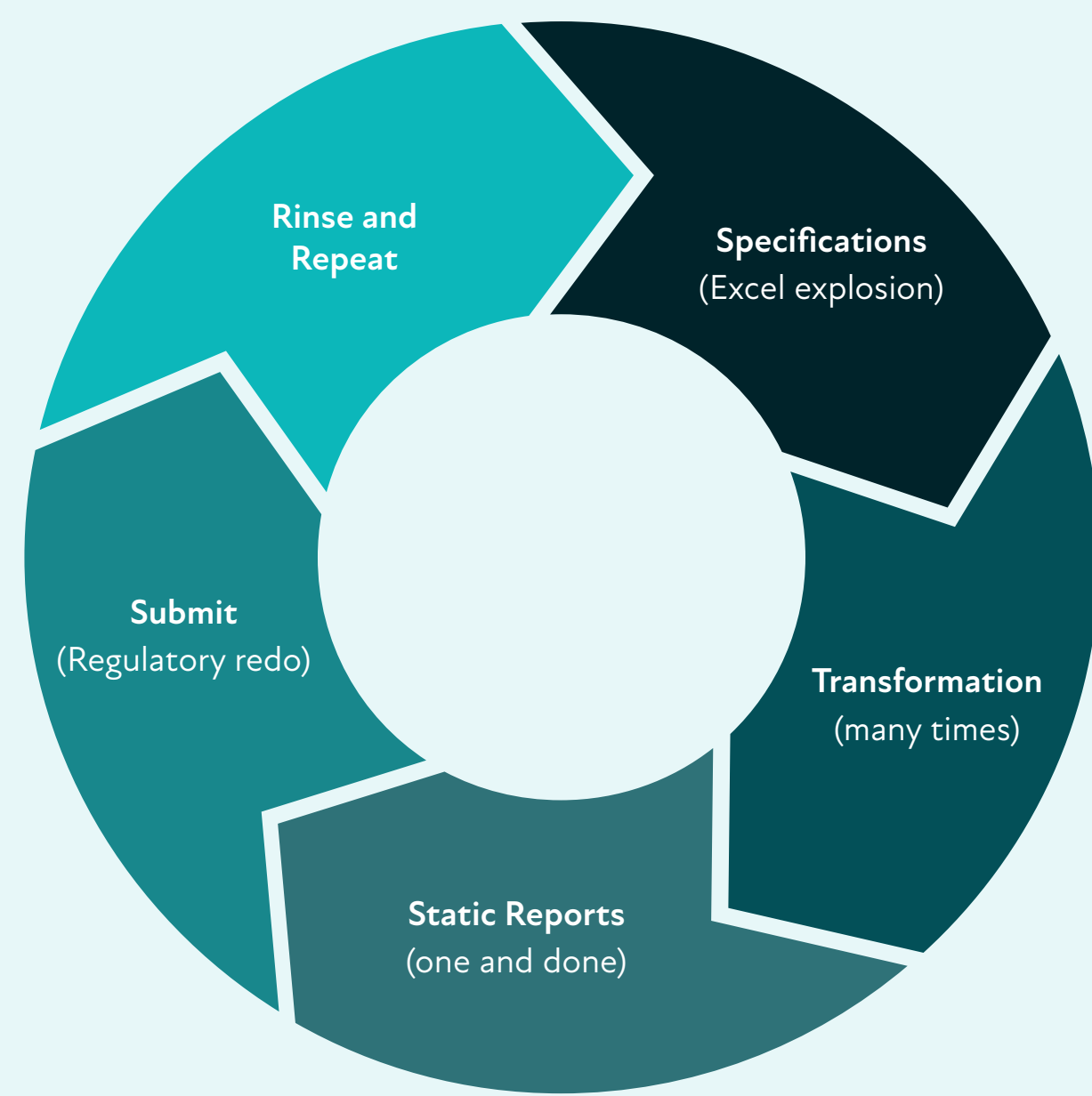
PP22 Transformation from Monolithic and Rigid Computing Systems to Modularized, Scalable, and Configurable Clinical Components by Leveraging Cloud Capabilities



A future clinical computing environment must be an open platform of flexible and configurable clinical components allowing data scientists to focus on the meaning of the data by automating the mundane tasks, providing a fit for purpose experience workflow and enabling the right tool for the right task built on an extendable cloud architecture to rapidly add new capabilities while maintaining data integrity and traceability throughout the clinical data lifecycle.

Chris Decker
chris.decker@d-wise.com

TODAY'S WORLD



PARADIGM

- Focused on SAS
- Controls drive process
- File system based
- SAS code artifacts drive structure/rules
- Code logs provide traceability
- Fixed static servers

CHALLENGES

- Unable to leverage next generation skillsets
- Controls trump user experience
- 1990's file system handcuffs innovation
- Limited code and data structures impedes traceability
- Static server requirements limits scalability and flexibility

TOMORROW'S OPPORTUNITY

Data Science Platform Vision

CAPABILITIES

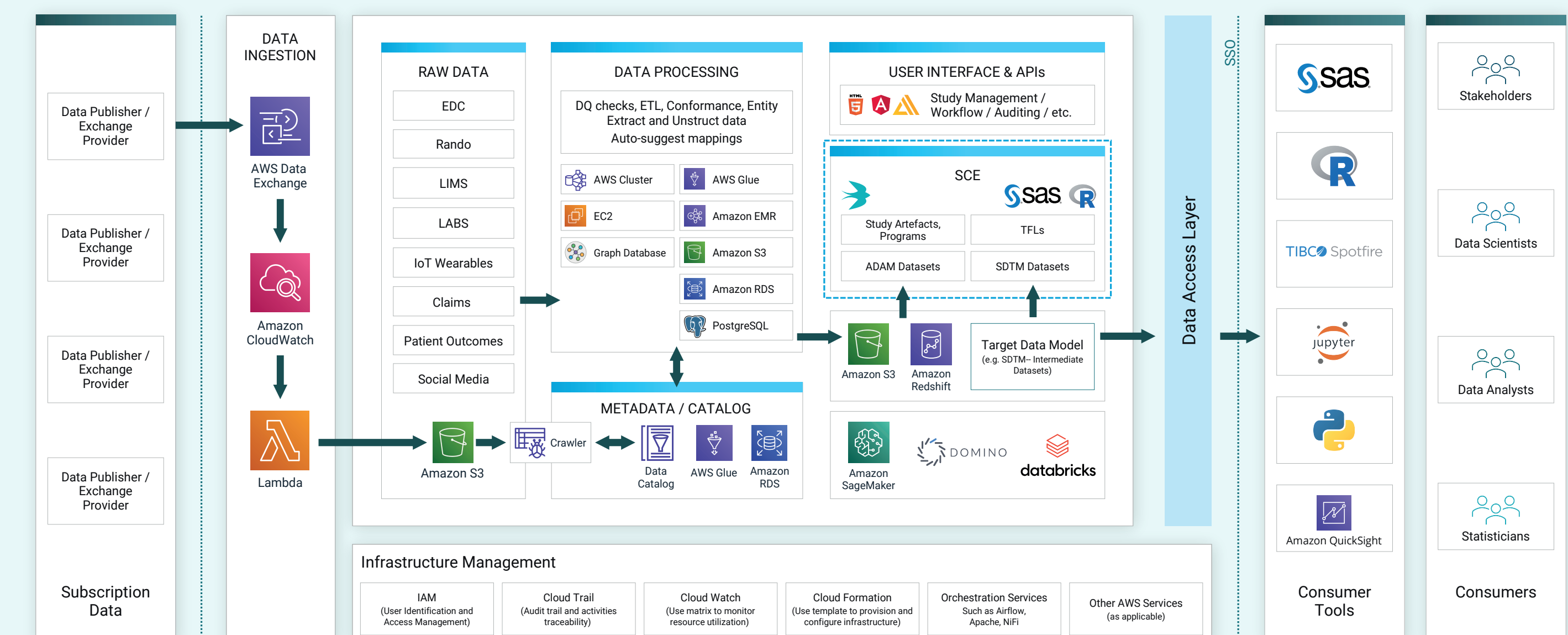
- Large data stored in non-traditional data 'lakes' and alternate structures like Linked Graph
- Ingestion of wide range of input data sources/types (Avro, Parquet, CSV, Unstructured)
- Leverage many tools or languages (e.g. Python, R, Julia...)
- Controls less important than access to analytics
- Utilize large data sources for AI/ML training



ENABLEMENT

- Flexible access to wide range of data
- Dynamic and scalable analyses
- Use tool or language of choice
- Burstable scalability
- AI and ML tools integrated into the process

Merging Data Science Platform with Today's Process



WHY MODULARIZED CLOUD CAPABILITY?

WHAT

Encapsulated Core Capability
Flexible & Configurable
Open Design

WHY

Plug-n-play for your unique needs
Seamless Integration
Enhance individually
Reduce testing

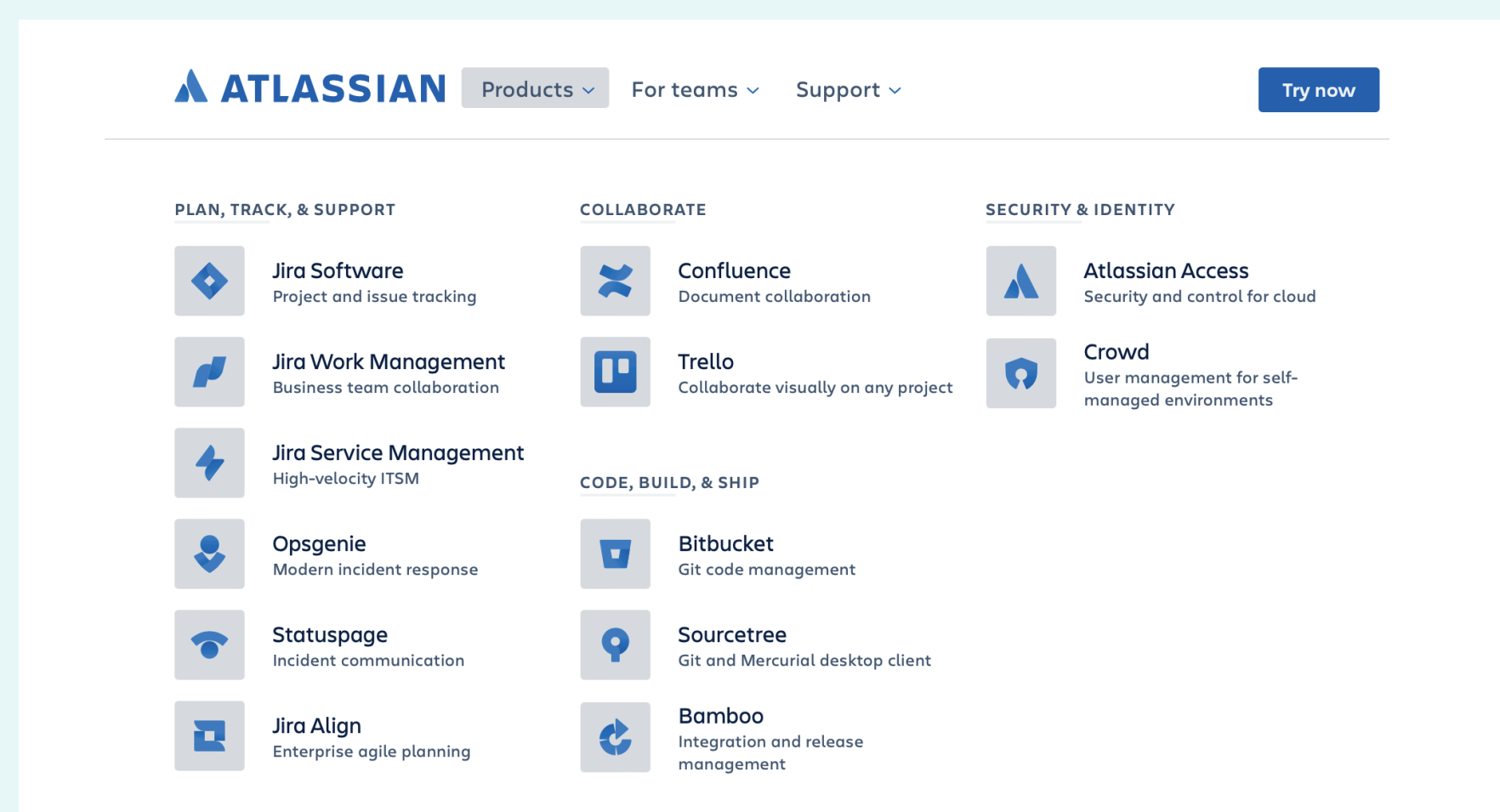
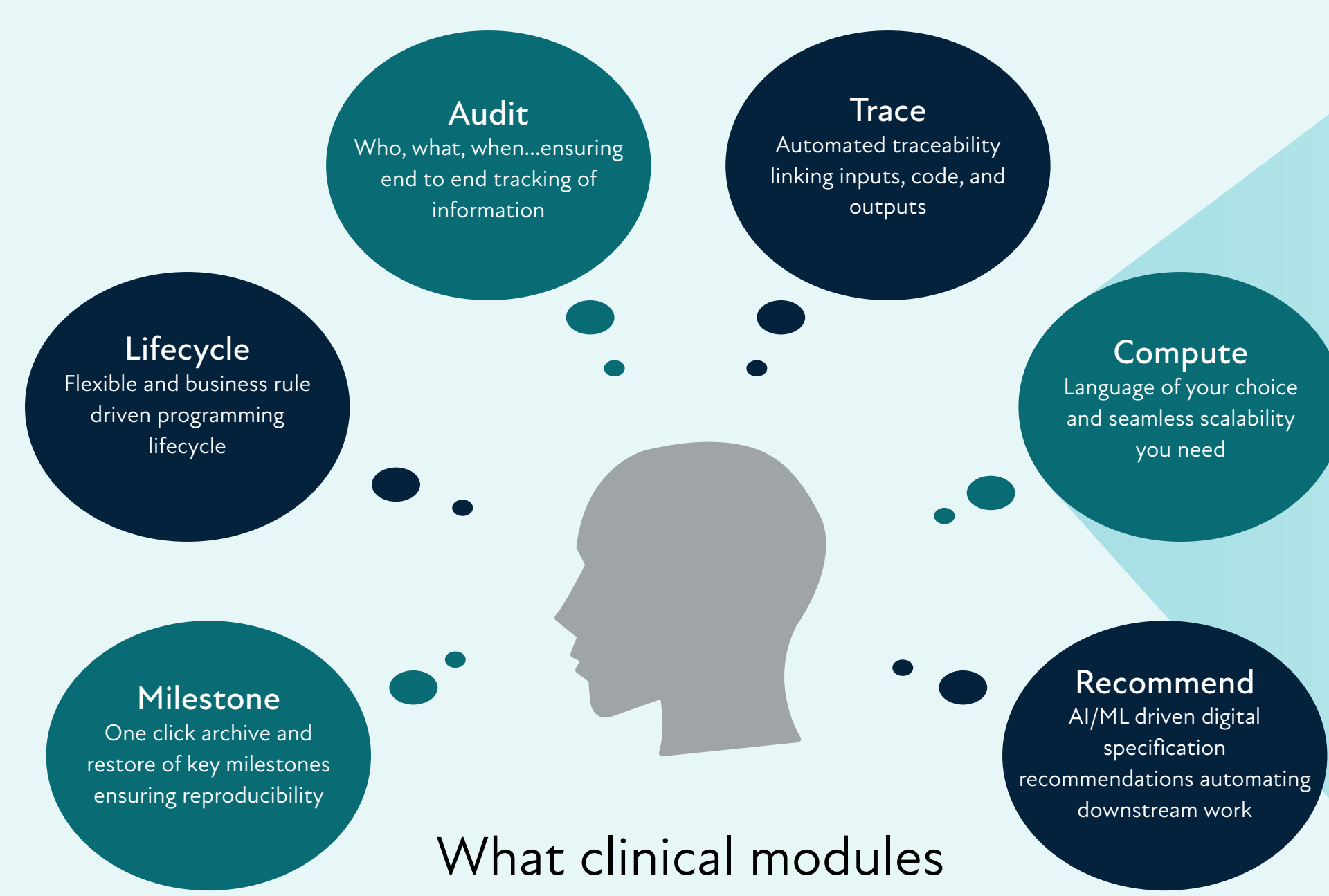
BENEFIT

Accelerated delivery
Configured to meet your business model
Consistent user experience

A Case Study in Modularized Cloud



Our mission is to help unleash the potential of every team



What clinical modules would you add?

IMAGINE...

Modular Compute

- Language agnostic
- Scalable workspace for each user
- Retain tool and version to reproduce results

Provides each user an on demand and scalable workspace connected to your study and using the tool of your choice

