

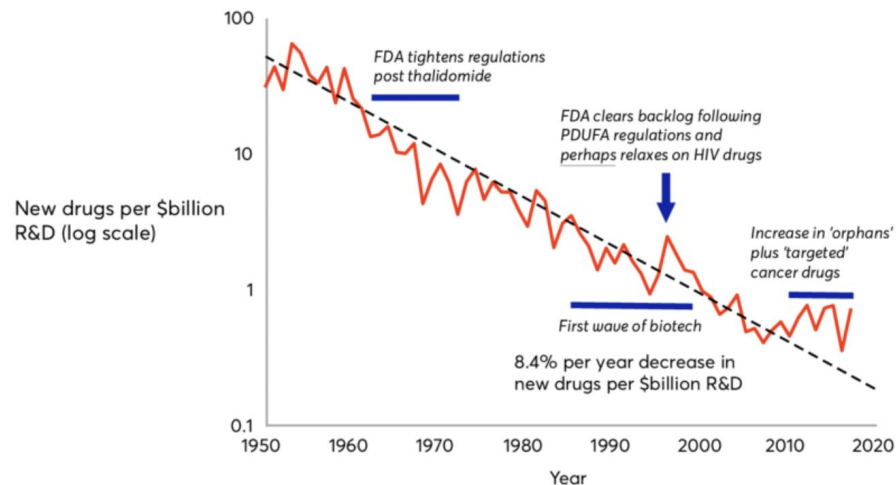
Industrializing Science...

A Foundry and Factory Approach

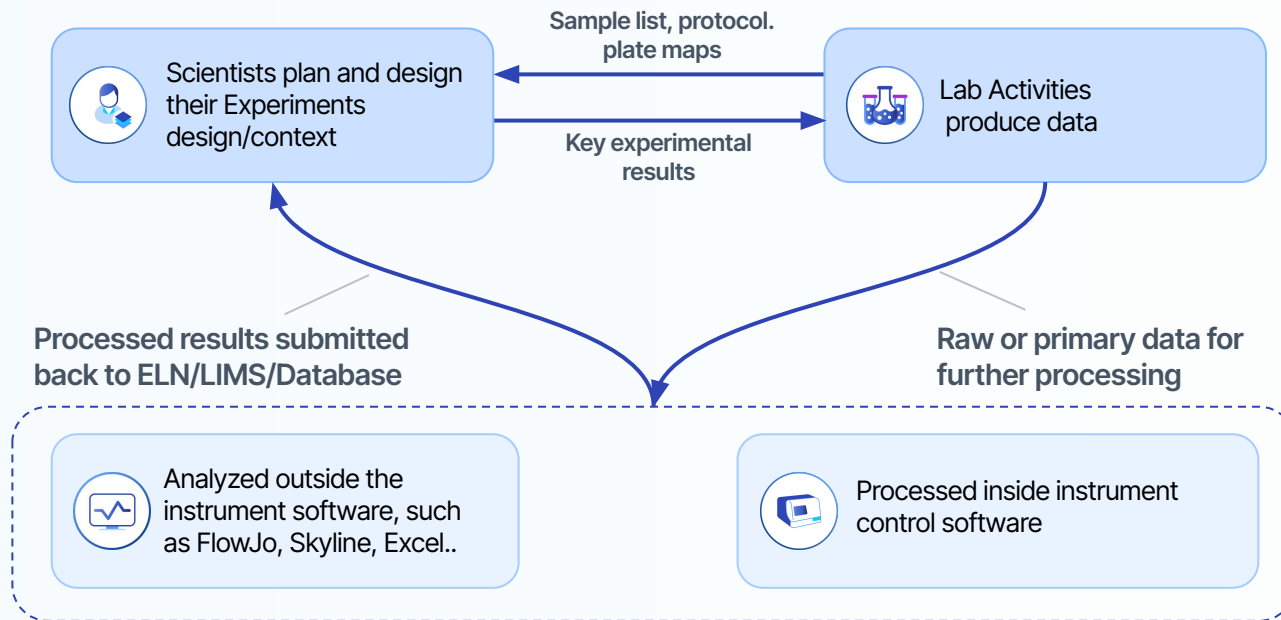


But first, the stakes - Eroom's Law

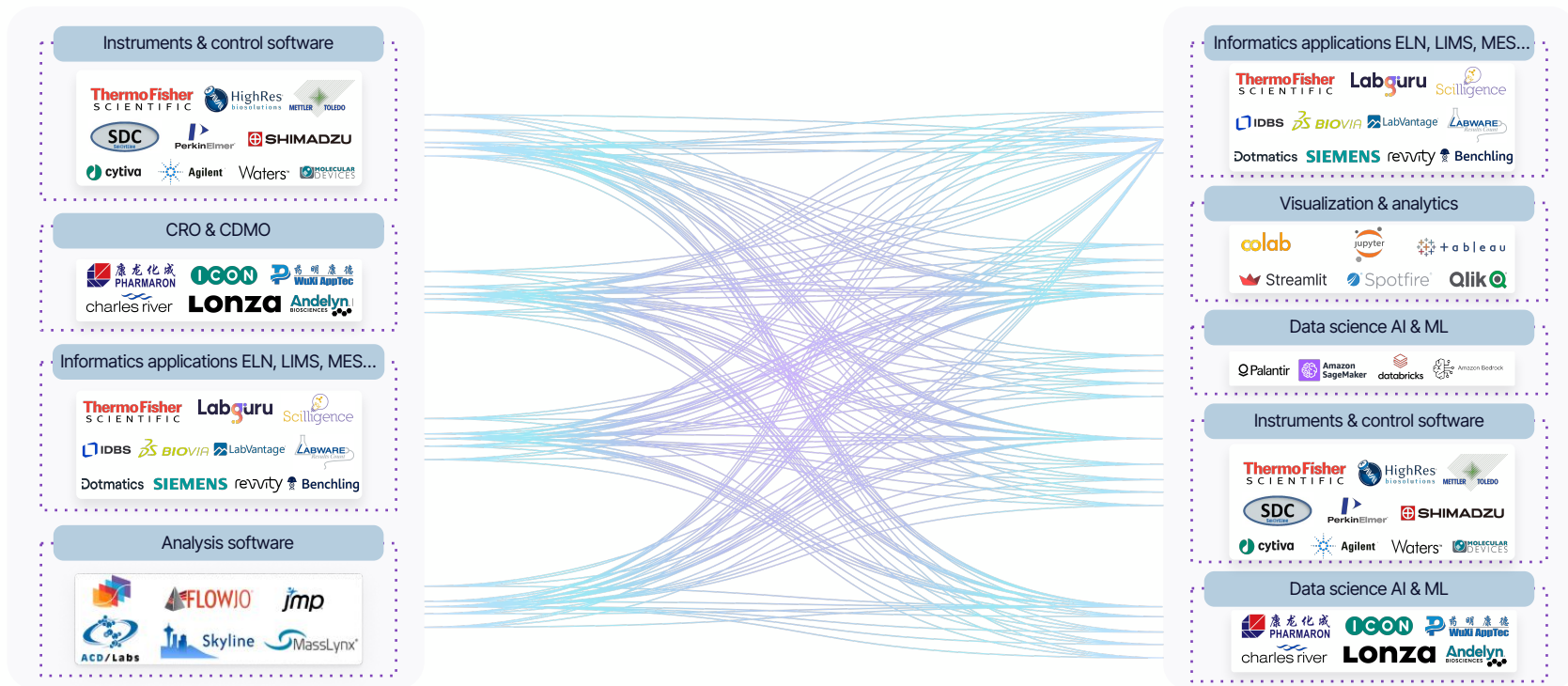
- ➔ Eroom's Law is real - half the drugs/\$B every 9 years
- ➔ We're in a productivity crisis that threatens pharma innovation
- ➔ Improved Data Usage and AI are key to reversing Eroom's Law



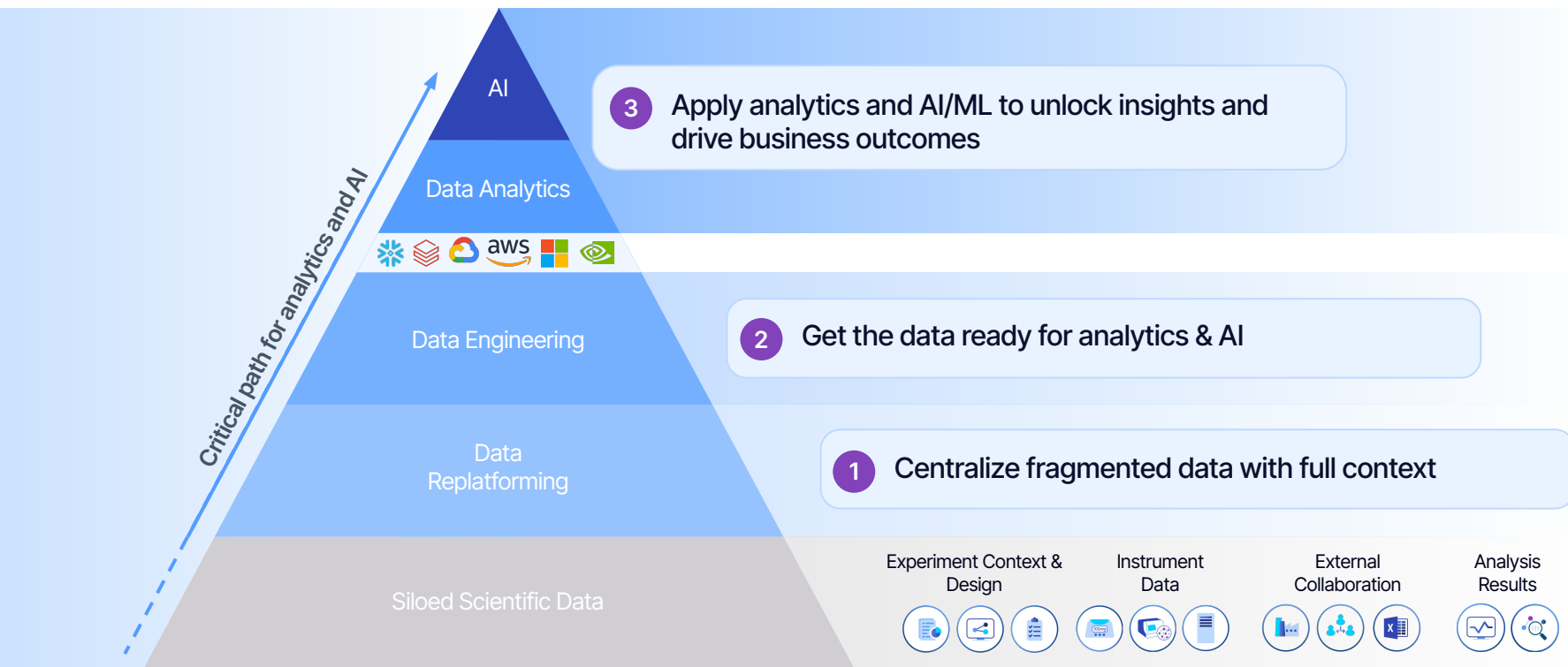
Let's zoom into a lab workflow cycle



10 million silos and DIY limit data access and liquidity



Conceptually it's simple

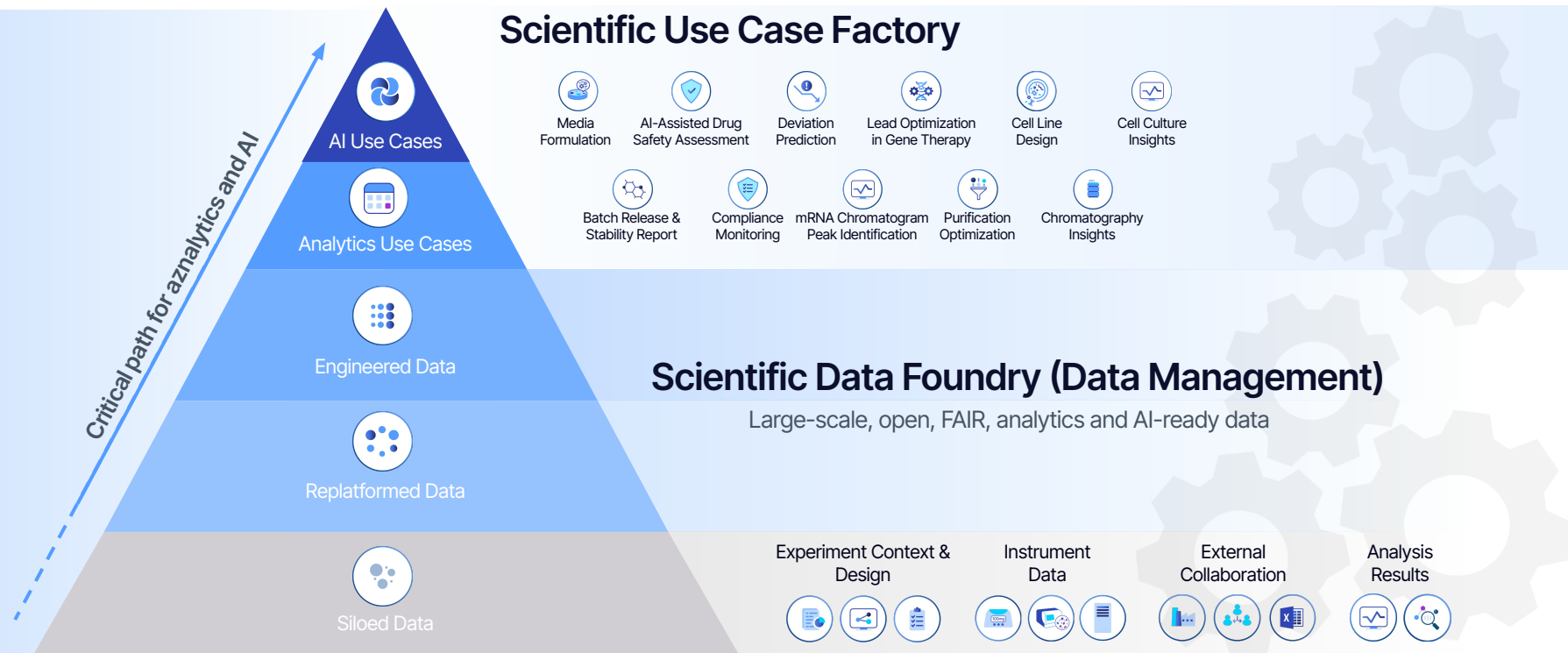


The emerging consensus that there is a way out

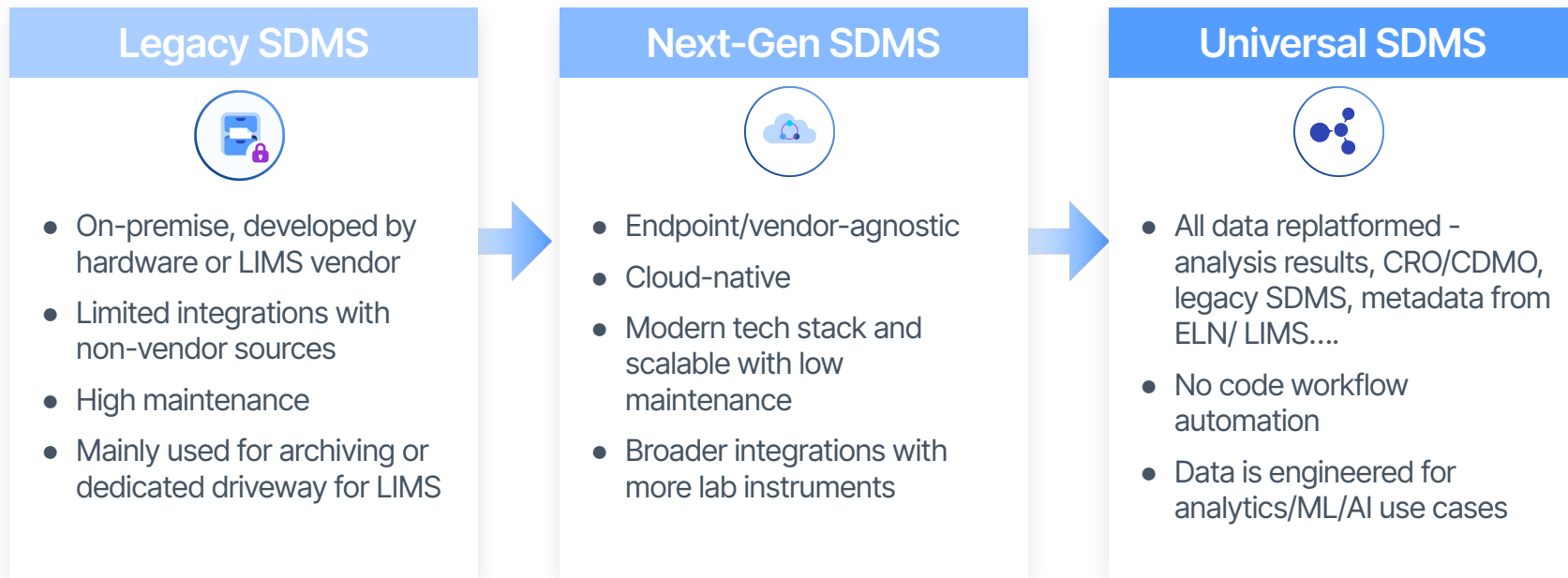
90% of your lab data-stack and data needs are common

- ➔ data ingress/egress endpoints are common
(instruments, CRO/CDMOs, ELNs, LIMS)
- ➔ scientific workflows and use cases are common in
terms of data patterns

An industrial approach to scientific data and AI use cases

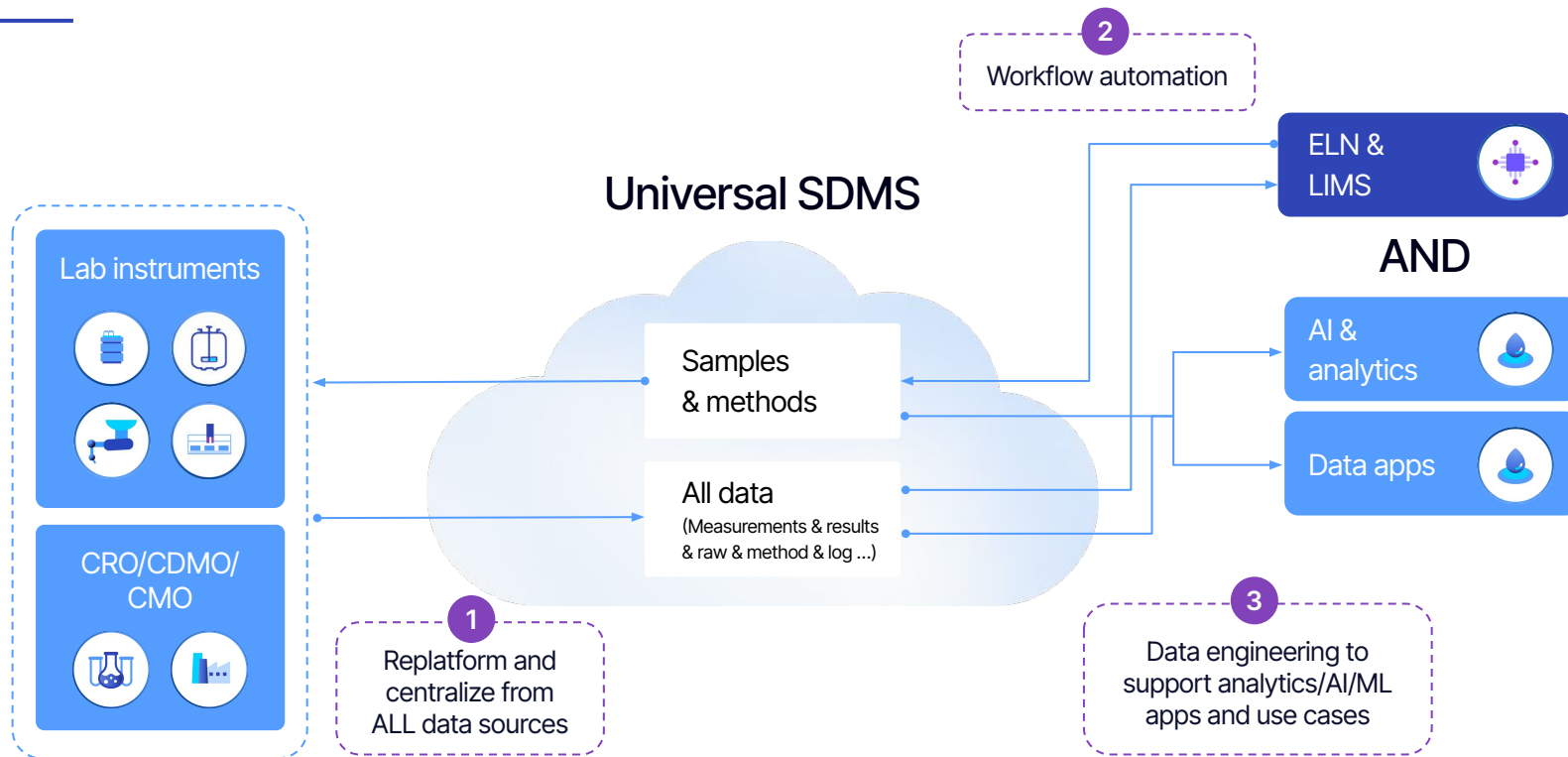


Observation #1: Scientific data management must evolve

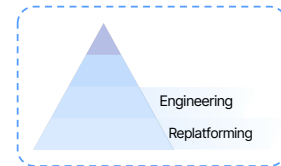


Universal SDMS = Data centric, end-point agnostic architecture to **search, reuse, share** and **prepare your data for AI**

Universal SDMS: supports traditional needs **AND** the use case factory



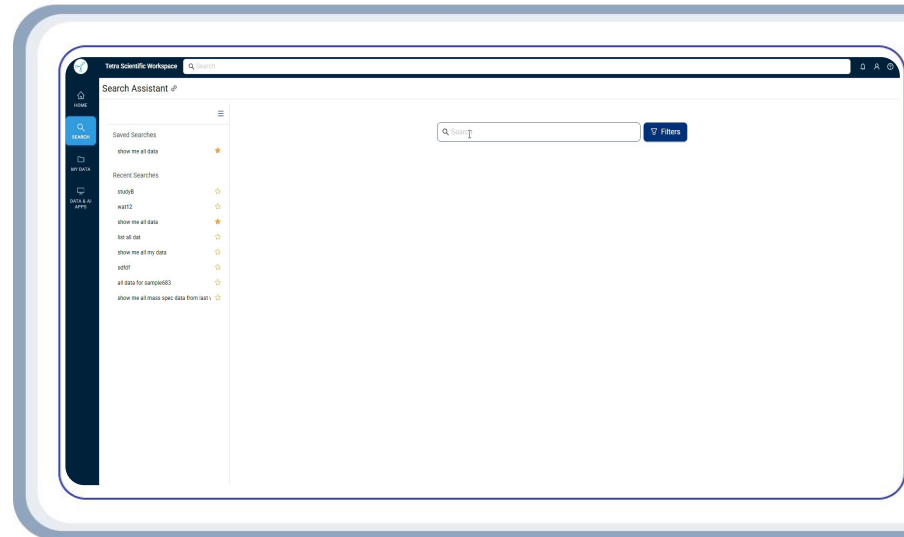
Scientific Data Management at industrial scale



- > 25% productivity gains**
with automated data collection, faster data retrieval and reduction of unnecessary wet lab experiments
- > 30% cycle time reduction**
with faster data retrieval and analysis with universal search, conversational interface and automated workflows
- 100% enterprise-wide data reuse**
by contextualizing all data and transforming it into actionable FAIR, AI-ready datasets

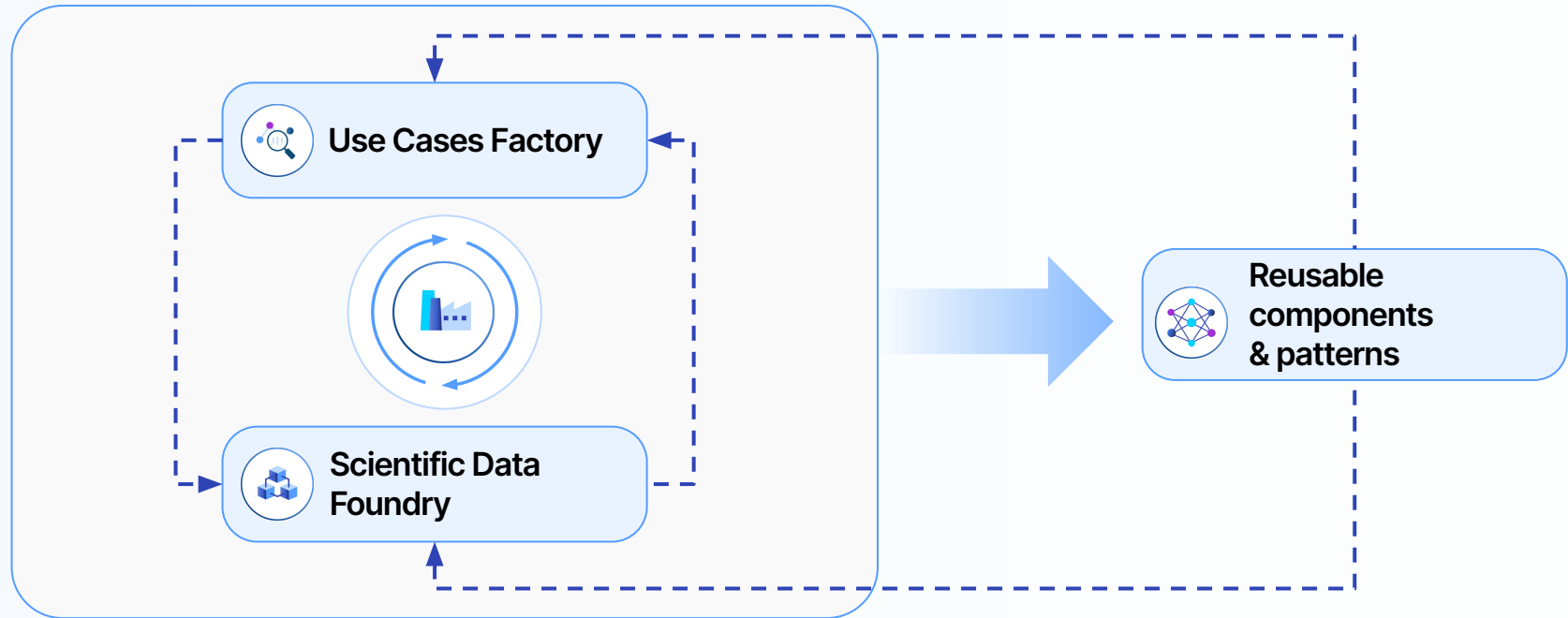
How

- Automatic linking and harmonization of experimental data with key metadata from ELN/LIMS and onprem sources
- Conversational interface enables scientists to ask questions, explore datasets and and visualize results on demand
- >1000 instruments connected and >3 PB/pharma

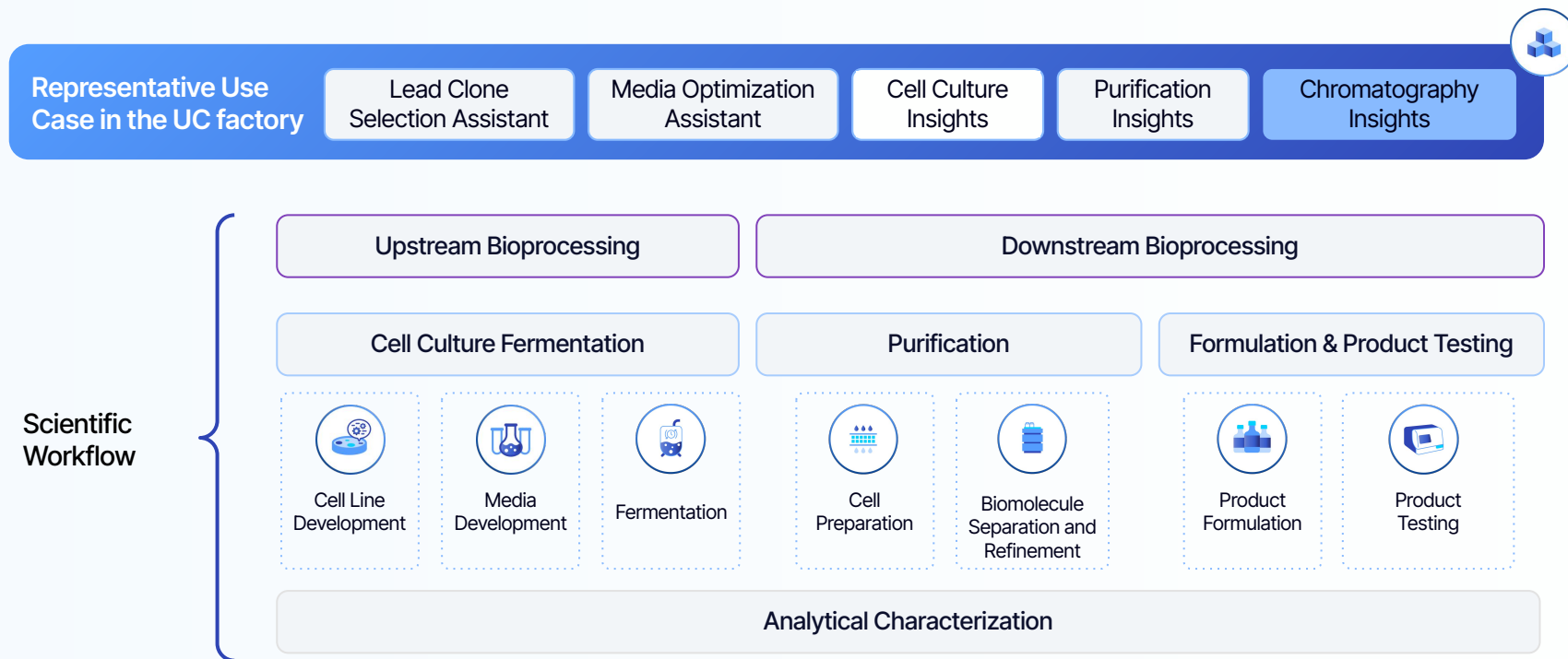


LLM-driven search delivers any data—recent or historic—from anywhere, at your fingertips

Observation #2: data foundry + use-case factory = a flywheel effect

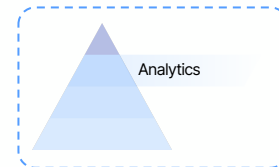


Let's talk about a use case



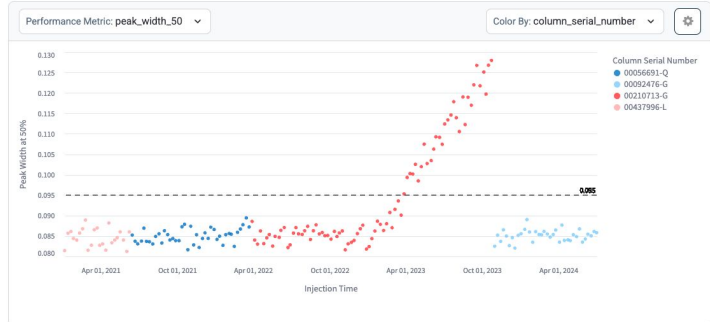
What started as a basic analytics use case...

Analytics cross labs, sites, projects, CDSs



Chromatography Insights

Unify all your chromatography data in one universal dashboard.



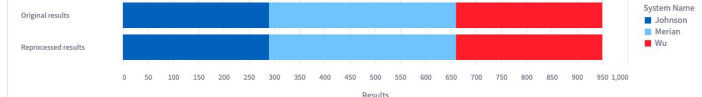
Chromatography Insights

Unify all your chromatography data in one universal dashboard.

Injection Status

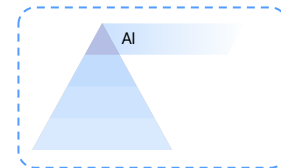


Processing Status

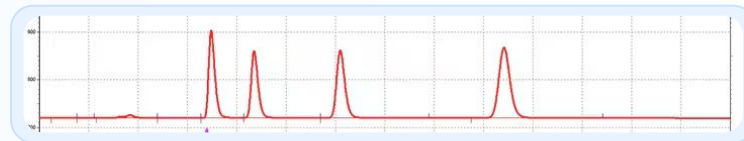
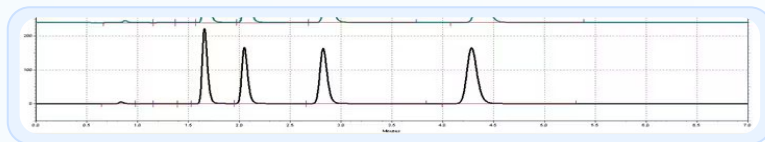
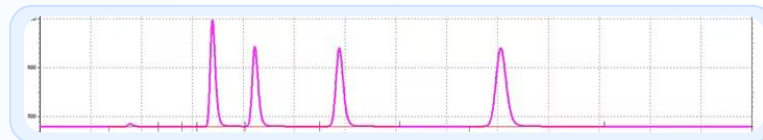
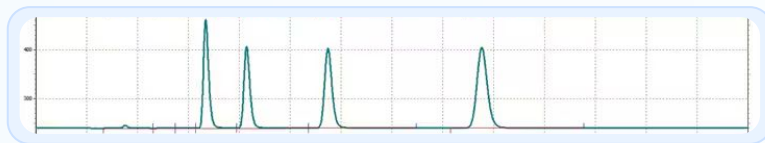


....quickly turned into an AI use case

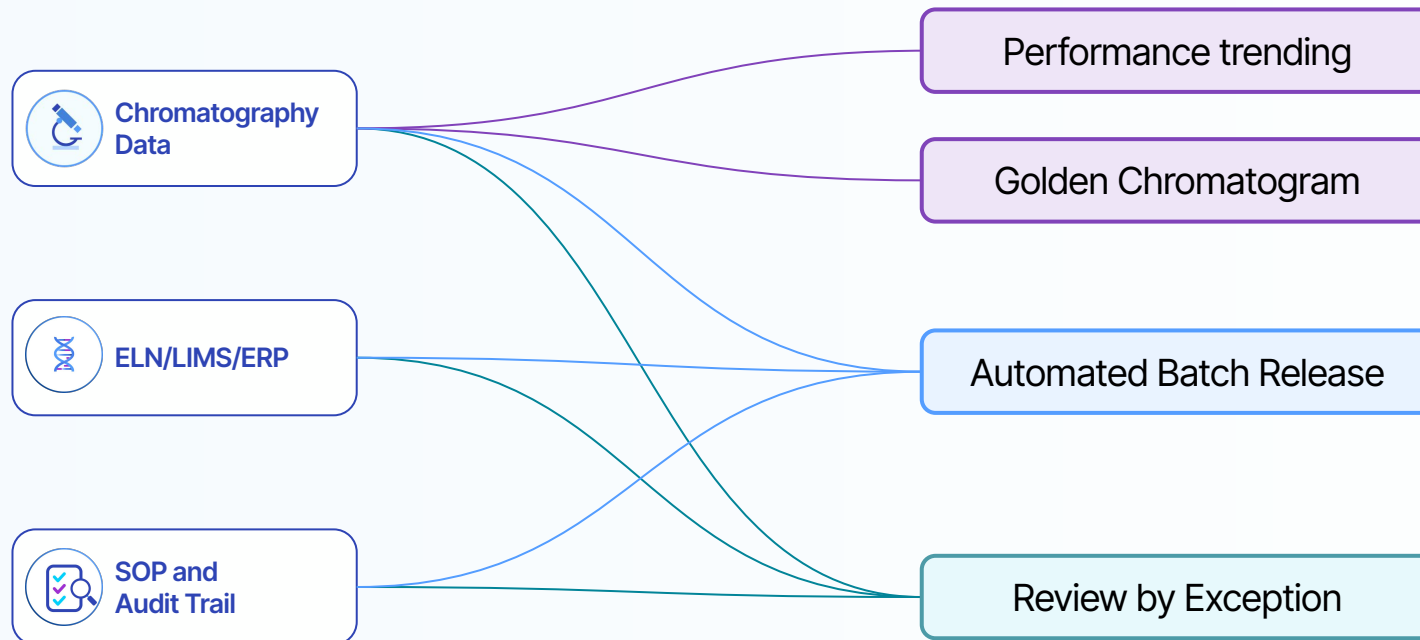
Can we review chromatograms that deviated from golden batch?



Profile and compare any number of chromatograms or injections

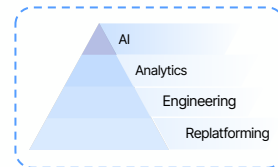


But it's more than just chromatography data....



Chromatography Insights - a productized application

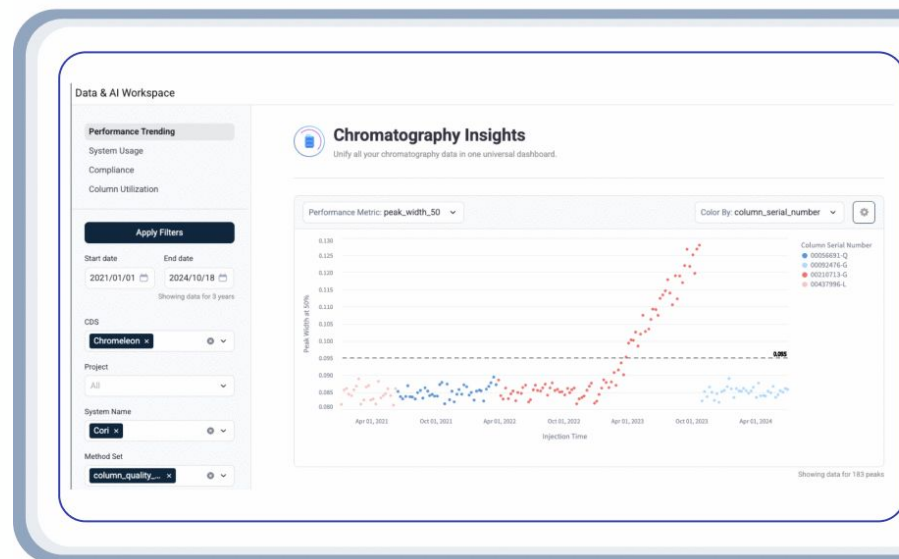
Including Review by Exception with **Archive-Restore**



- ➔ **Up to 75% reduction**
in out-of-specification events and deviations
- ➔ **80% reduction in SOP violations**
by flagging repeat injections and manual processing
- ➔ **Faster batch release**
by reviewing only flagged outliers with full context

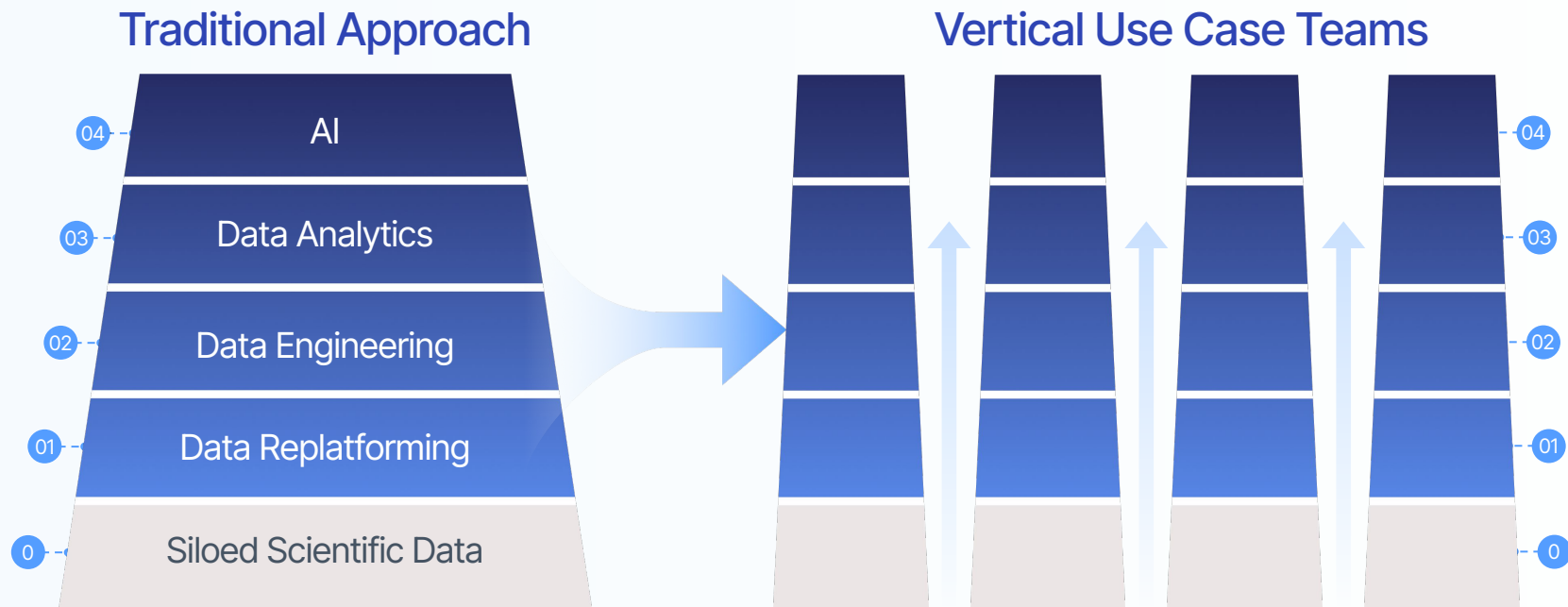
How

- Centralize and harmonize data from different CDS
- Trend batch release & stability data and AI/ML to reduce deviations
- Enable instant context from LIMS, ELN, LES for every exception to accelerate root-cause analysis



Monitor performance trends and reduce OOS results by up to 75%

Observation #3: Team Structure

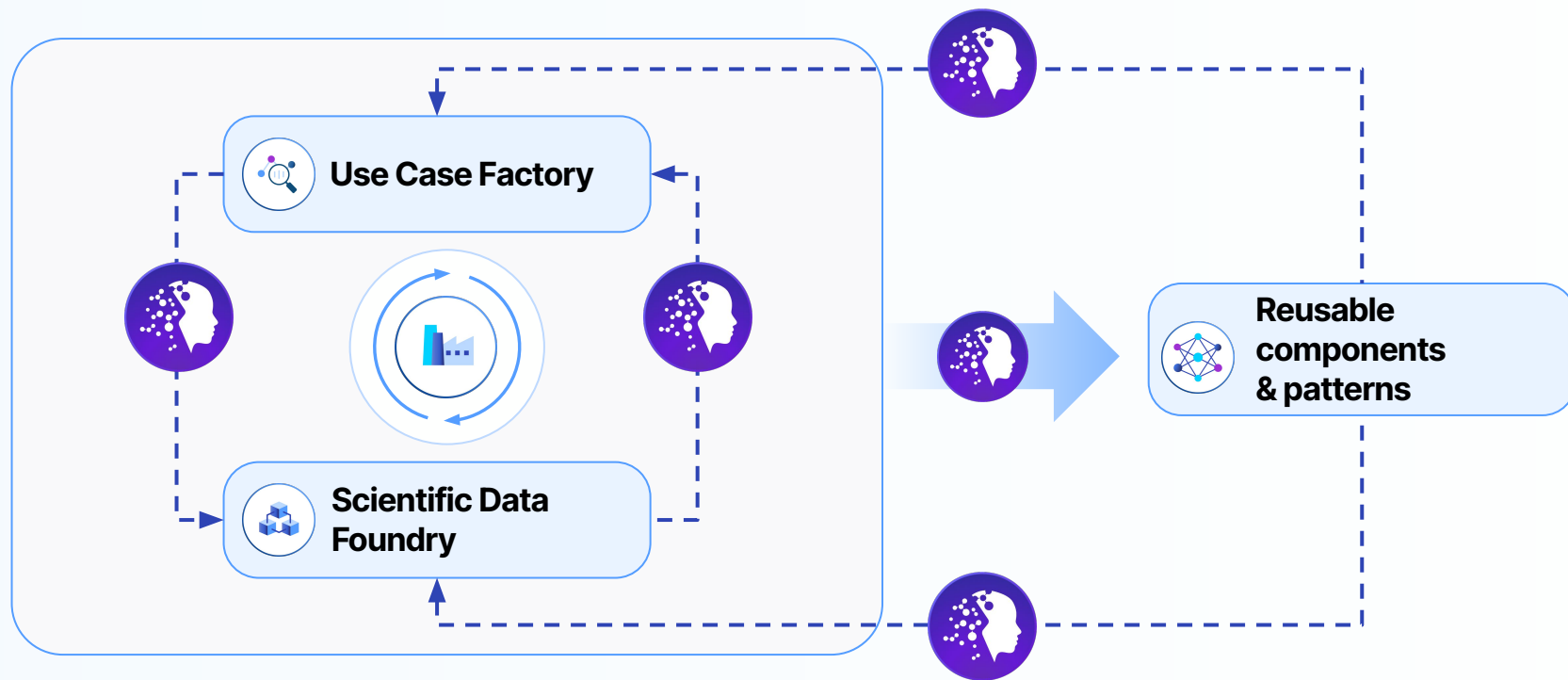


The Rise of "Sciborgs"



Classically trained scientists who work at the nexus of scientific use cases, scientific data, and AI/ML to produce transformational outcomes

Sciborgs power the Use Case Factory



Come join the pharma Industrial Revolution

- ➡ As a industry, we are stuck
- ➡ Industrialization is the only approach
- ➡ **#1: Universal SDMS is the start**
- ➡ **#2: Flywheel Use Case Factory**
- ➡ **#3: The Rise of Sciborgs**



If you are interested, add me on LinkedIn
(Simon Meffan-Main) and/or come to
Booth # 611