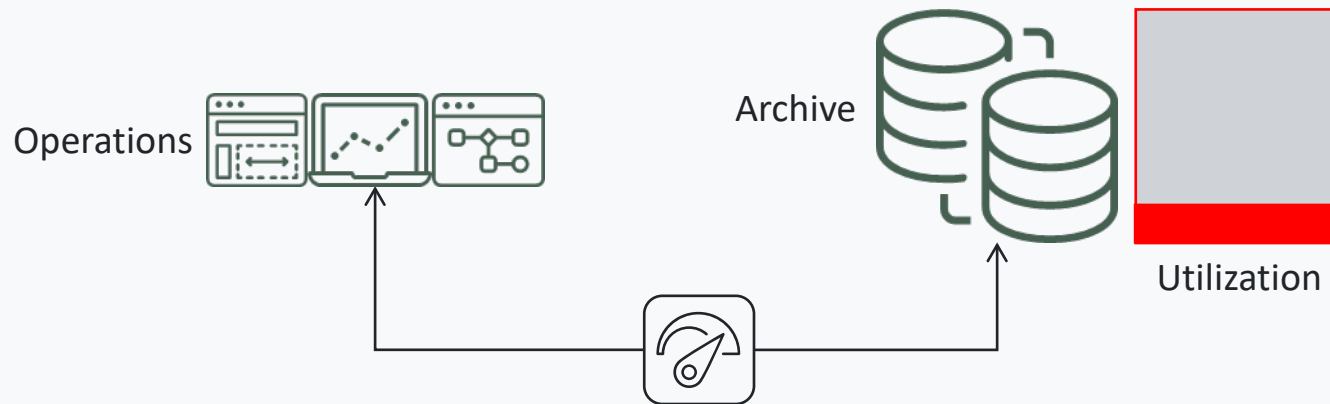# Scientific Tools for Advanced Synchrophasor Data Analysis

Challenges with Stored Data

- Lots of real time application for Synchrophasors

- Lots of discussion on storage solutions

- What Then?
  - Data is stored for years
  - Some known events are used over and over
 - Most data is never retrieved

Unrealized Potential:
Test new analytics
Configure alarm thresholds
Validate models
Evaluate protection
Analyze stability
Review frequency response
Develop operator training scenarios
Monitor asset health
Train machine learning models

Operations

Archive

Utilization

SciSync

- SciSync is open-source software for extracting value from archived data

- Support myriad applications

- Analysis chain is user configurable

- Users' analytics can be integrated with relative ease

- Leverages existing Synchrophasor archiving infrastructure

- Enables offline tasks:
  - Model validation (NERC MOD-026-1 and MOD-027-1)
  - Frequency response analysis (NERC BAL-003-1)
  - Stability analysis (NERC IRO-002-6)
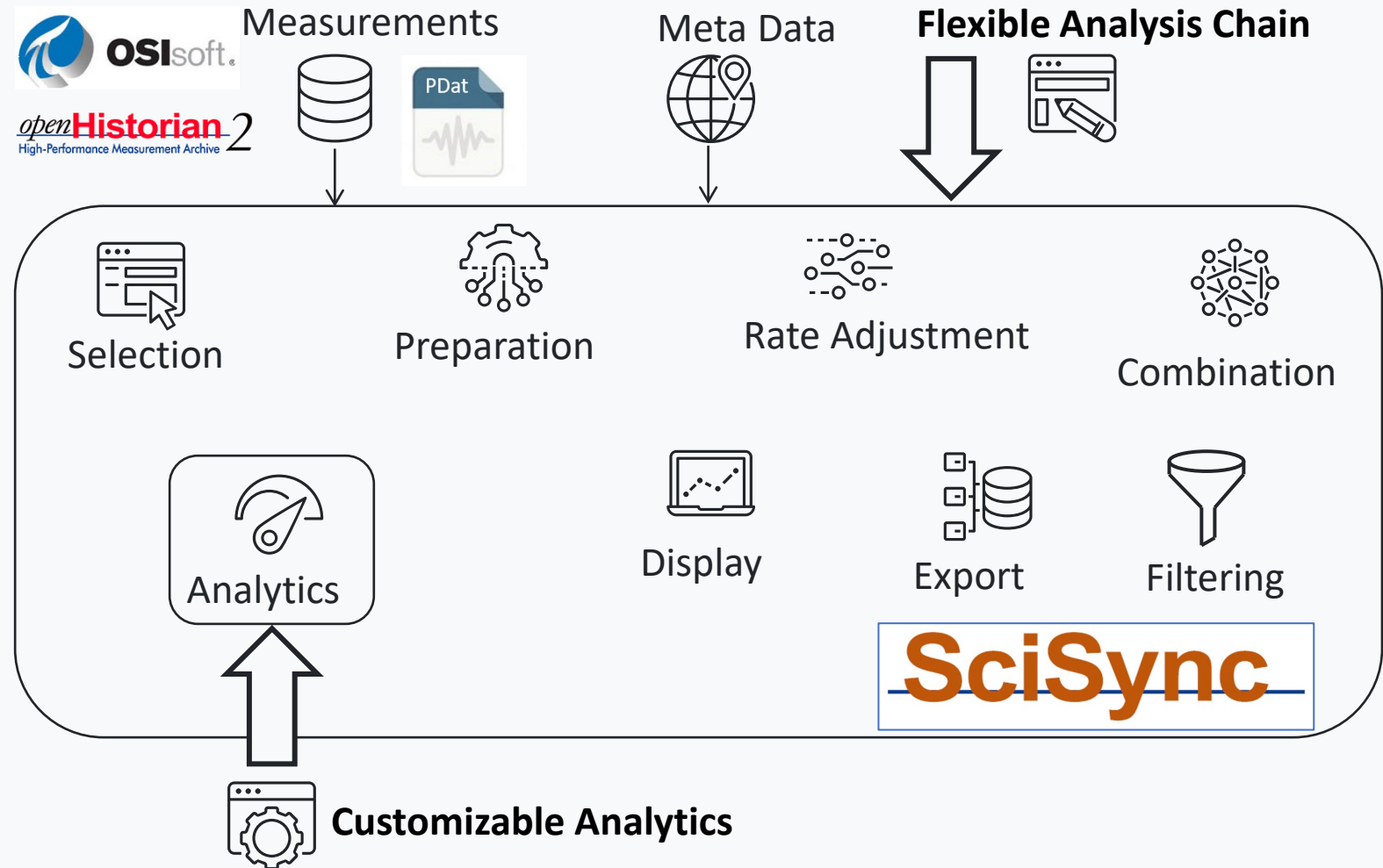
Frequency Response Analysis
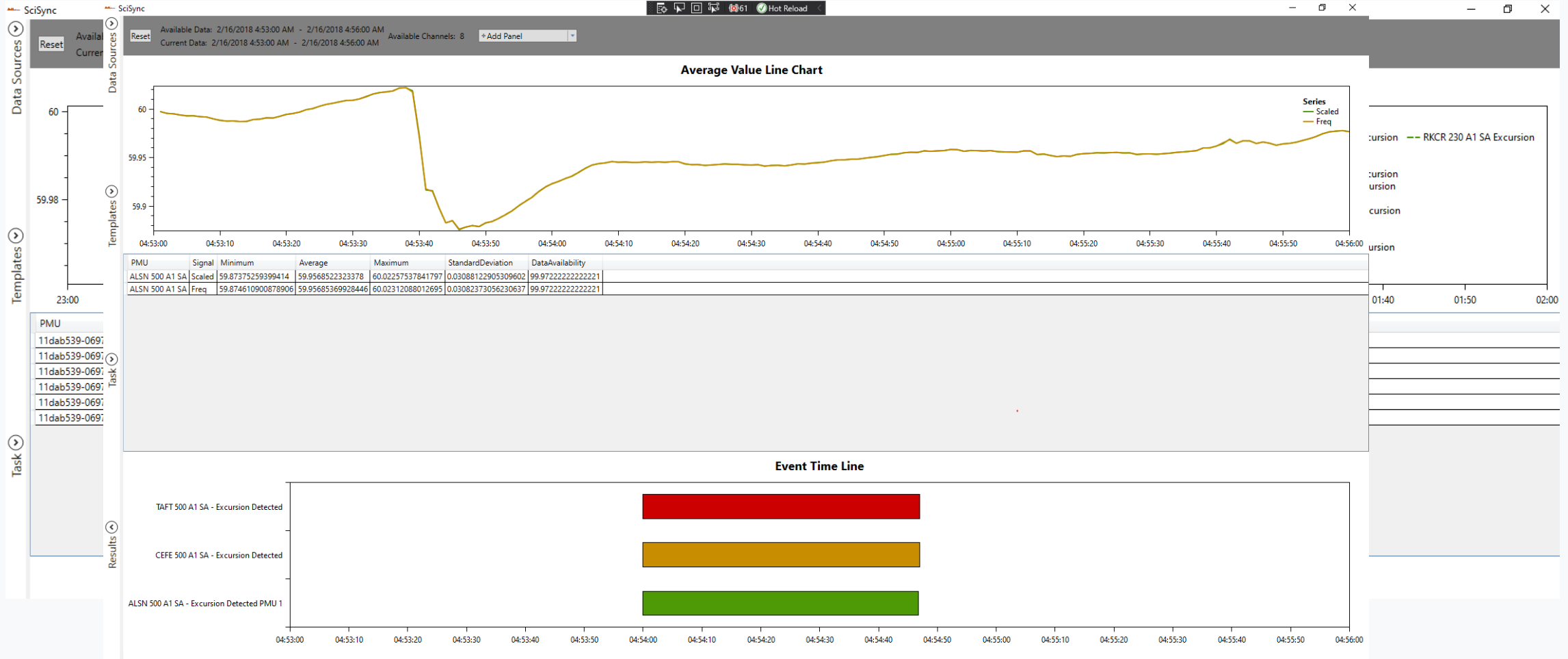
2023 Release

- We are still looking for Beta Testers
- Benefits for Beta Testing to utilities
  - GPA to provide no-cost support until 04/2023
  - OSISoft and GPA to closely work together for supporting customers with PI Systems
  - GPA and PNNL to provide targeted "value added" webinar
- General Release early 2023