



Aarti Industries boosts experimental analysis

To enhance the accessibility of experimental data and support compliance, specialty chemicals manufacturer Aarti Industries looked to improve data retrieval and analysis. By migrating to Revvity Signals Notebook, Aarti Industries is unlocking the true value of its data.

- Improves experimental analysis
- Provides reliable data security
- Supports regulatory compliance

Aarti Industries is a leading Indian manufacturer of specialty chemicals used in the downstream manufacturing of agrochemicals. Based in Mumbai, the company produces over 100 products from its 16 manufacturing plants, employs more than 6,000 people, and generated revenue of over \$910 million in 2023.

Demand for an accessible, secure data repository

Expanding fast, Aarti Industries operates R&D facilities in Navi, Mumbai, and Vapi, Gujarat. With a history reaching back 25 years, its scientists continue to rely on thousands of laboratory notebooks. Unless an individual scientist recalled a particular experiment and knew which notebook it might be in, the information was lost. Simultaneously, new experiments generate a continuous flow of new information about the synthesis of each chemical. Faced with this combination of paper legacy and digital future, the Aarti Industries team looked for ways to improve both data retrieval and analysis.

“Our first concept for a new data repository was to migrate to a paperless laboratory. Although this can increase efficiency, for us it was mainly about being able to analyze our data better, and gain insights through artificial intelligence and machine learning into optimizing our processes,” explains Vinod Shivanand Honmure, Head of R&D Excellence.

“The second concept was to maximize data management, which includes security for sensitive customer data, traceability, backup restoration, and retrievability. In addition, we wanted to improve our compliance capabilities and meet regulatory requirements and ISO certification standards.”

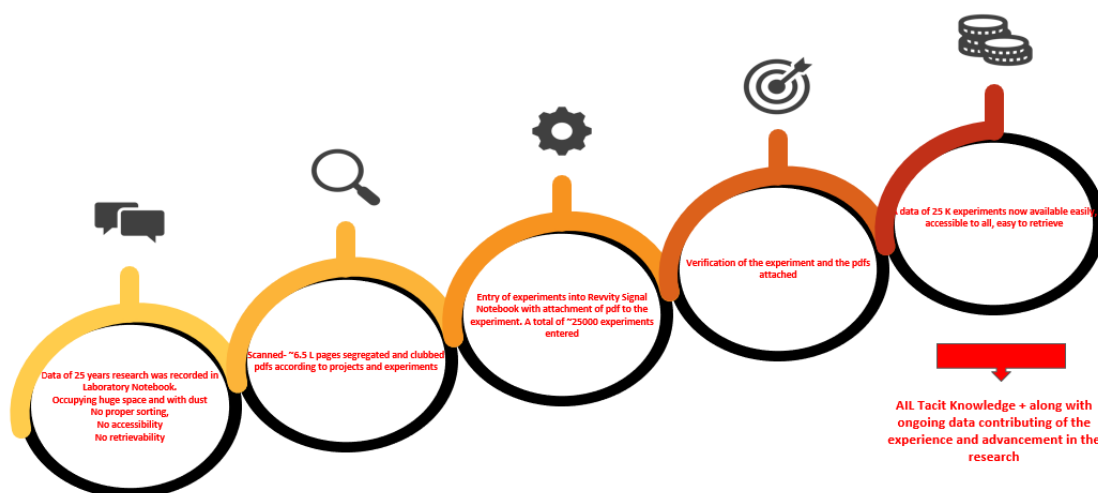


Figure 1 : Outlines the digitization of 25 years of research, scanning 6.5 lakh (650, 000) pages and linking ~25,000 experiments in Signals Notebook. Verified data is now easily accessible and supports ongoing research.

Selecting Signals Notebook

Reviewing possible routes, Aarti Industries selected Signals Notebook as part of a digital transformation project that will lead to a fully paperless laboratory solution. The program includes the capture of the historical data from the paper notebooks and will extend to the newest data analysis based on AI technologies.

“To migrate from handwritten notebooks to Signals Notebook, we scanned close to 650,000 pages of text. Using document automation software, we sorted the pages by experiment and ingested the data to Signals Notebook. The process created a full record of 25,000 experiments for the R&D team to access from Signals Notebook,” explains Vinod Shivanand Honmure.

“As an organization, we have reached around 1,015 stages of synthesis for some chemicals. We have captured all of this data in Signals Notebook, allowing staff to quickly trace back how each chemical is made, offering significant R&D productivity gains. Whenever there is a query from the customer, we can refer to these 25,000 experiments to see what was done in previous years and extract an answer from there.”

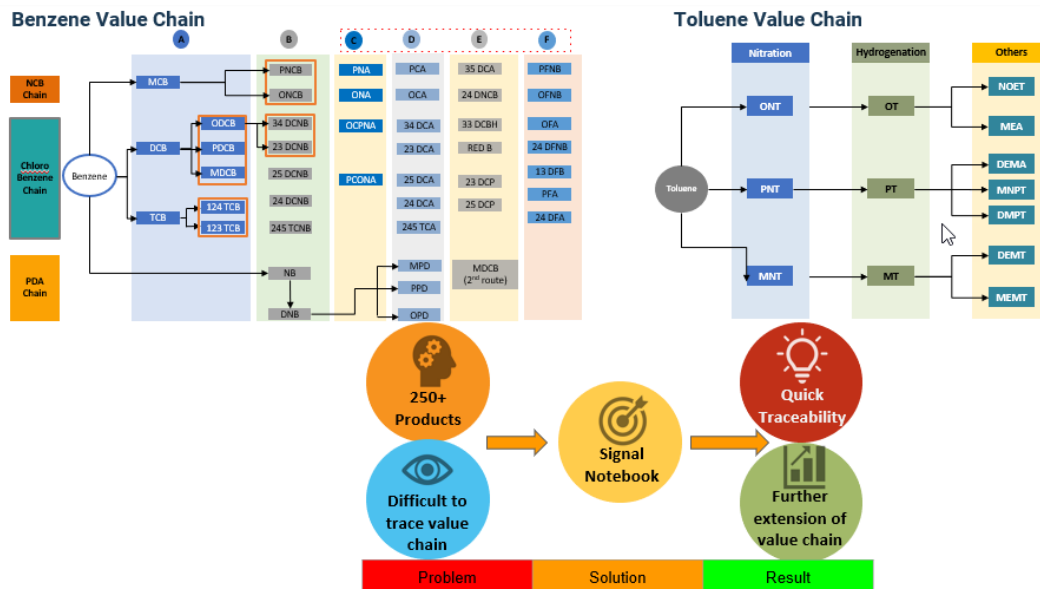


Figure 2 : Shows how Signals Notebook enabled quick traceability of over 250 products and streamlined value chain extension, addressing complexity in tracking product relationships.

Extending the benefits

As Aarti Industries transitions to fully digital operations, the benefits of curated data are extending beyond the lab and helping with compliance and business efficiency. For example, by maintaining a comprehensive record of materials synthesis, the company is better-able to identify what opportunities from a freedom to operate (FTO) perspective, avoiding infringement of intellectual property.

Vinod concludes: "Signal Notebooks takes care of our data, and I am very satisfied with the information security management. I have full confidence in Signals Notebook that this level of security for our data will continue, and Aarti Industries is starting on a journey to realize the true value of our data."

Vinod Shivanand Honmute, Head of R&D Excellence, Aarti Industries



revvitysignals.com
77 4th Avenue
Waltham, MA 02451 USA
P: (800) 762-4000 (+1) 203-925-4602

Revvity Signals

RevvitySignalsSoftware

revvitysignals

Revvity_Signals

RevvitySignals

Copyright ©, Revvity, Inc. All rights reserved. Revvity® is a registered trademark of Revvity, Inc. All other trademarks are the property of their respective owners.