

Leveraging Digitalization at The Operational Level Through Self-Service Industrial Analytics

Learn how self-service analytics help ARLANXEO to perform better analyses, optimize maintenance, increase environmental benefits and save operational costs.



CUSTOMER
SUCCESS
STORY

ARLANXEO is a chemical company manufacturing synthetic high-performance rubber. In this success story, Herman Schuster, Chief Digital Officer at ARLANXEO, will discuss how Trendminer's self-service industrial analytics fits his data and information strategy; to leverage digitalization at all levels of the organization.

Multiple analytics use cases have helped ARLANXEO to optimize the production process as well as contextualize asset performance through process data. The next step in creating more business value is by cross-asset performance monitoring. The key capabilities of TrendMiner to analyze, monitor and predict process and asset performance will help ARLANXEO daily to further improve production yield, optimize maintenance and reduce costs across multiple sites.

THE JOURNEY

IMPROVING OPERATIONAL PERFORMANCE AND PROCESS MATURITY

ARLANXEO is a world-leading chemical company developing, manufacturing and marketing synthetic high-performance rubber for use in various industries. ARLANXEO is continuously looking for ways to reduce costs, improve reliability and reduce energy consumption. As Chief Digital Officer at ARLANXEO, Herman Schuster has developed a data and information strategy for the exploitation of all data assets to create business value, including process data captured in the OSIsoft PI system. The first steps in exploiting the process data, captured in their OSIsoft PI system, were taken by the subject matter experts at a site in Belgium. ARLANXEO decided to select TrendMiner's self-service industrial analytics platform because of:

- TrendMiner's focus on and experience in the process industry.
- The high level of usability of the software and the unique capabilities for process experts.
- The rapid setup and implementation of the software supporting multiple historians.



**Hermann
Schuster**

Chief Digital Officer
at ARLANXEO

Hermann Schuster is the Chief Digital Officer for Arlanxeo. He is responsible for the data and information strategy for the exploitation of all data assets to create business value. Schuster has always been an enthusiastic driver for digitalization of the company and leveraging the benefits of big (process) data. He wants to empower the users at all levels of the organization with data analytics and enable them to contribute to their personal and organizational goals. Hermann Schuster holds a PhD from the University of Stuttgart.

Due to the openness of OSIsoft PI, there was no need for data migration to start working with TrendMiner. Based on the plug-and-play architecture, the results of the use cases (see below) and enthusiasm of the users, Schuster decided to expand the scope to the entire business unit.

BUSINESS CHALLENGES

GAINING VALUABLE ANALYTICAL INSIGHTS IN A FRAGMENTED GLOBAL IT LANDSCAPE

As in many industries, digitalization is required to remain a market leader and enable future profitability. To sustain their leading position, ARLANXEO had to find a way to enable continuous process optimization by leveraging digitalization at all levels of the organization – from researching how digitalization would affect their current business model to the impact of digitalization on their processes and day-to-day work.

1. Providing consistent quality of product properties worldwide

Having production facilities in nine different countries increases the challenge for ARLANXEO to provide a constant product quality level. To meet their customer's expectations for product quality, ARLANXEO had to find a way to continuously improve process reliability for achieving global product equivalence.

2. Effectively using analytics in a fragmented global IT landscape

The starting point of ARLANXEO's ambition to profit from digitalization was to implement new, disruptive kinds of analytics software. Unfortunately, from an IT point of view, ARLANXEO has to deal with a fragmented IT landscape and the use of a variety of historians like OSIsoft PI and Honeywell PHD. Therefore, to effectively leverage digitalization with the help of new analytics software, ARLANXEO had to find software that would easily fit within in their partially fragmented application landscape.



SOLUTION

INFORMED PROCESS OPTIMIZATION WITH THE HELP OF ANALYTICAL INSIGHTS

Self-service industrial analytics proved to be a solution that could help ARLANXEO to profit from digitalization. By implementing self-service industrial analytics, engineers can now get better, more and faster insights in their operational production data. TrendMiner enables them to identify new areas for performance optimization with advanced root cause analysis capabilities, monitor production to avoid abnormal situations and even predict future evolutions of batch runs, transitions or equipment startups in minutes.

ARLANXEO decided to gradually roll-out the use of self-service industrial analytics of TrendMiner over their sites, starting with a pilot implementation at one site. During the first pilot implementation, ARLANXEO connected the TrendMiner self-service

industrial analytics to the OSIsoft PI system and with help of TrendMiner during the onboarding began to look for use cases. Based on the first positive results, they expanded to another five sites and eventually worked towards a global rollout.

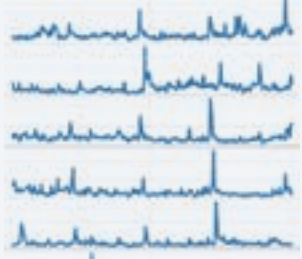
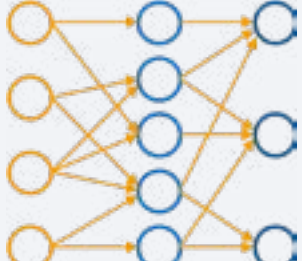

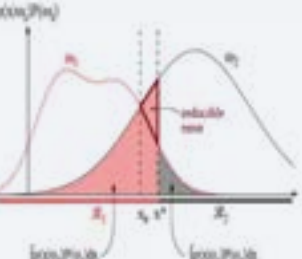
<p>More comprehensive analysis (history and data sets)</p>		<p>Better quality of analysis by using more comprehensive data sets of data: Easy access to historical data (longer timeframe used for analysis); filtering on similarities</p>	<p>EXAMPLE Impact of overhaul efforts on performance of compressors in a specific site.</p>
<p>Gaining complex process insights</p>		<p>Analysis across a larger set of indicators / parameters become feasible. Across multiple steps in process; with multiple parameter changes.</p>	<p>EXAMPLE Impact of using a new raw material (from new supplier) on reactor run time / quality indicators</p>
<p>Integrating root cause analysis and process monitoring</p>		<p>Improved root cause analysis (more historical data, multiple data sets) can be used to define future alerts within the process.</p>	<p>EXAMPLE</p> <ul style="list-style-type: none"> • Impact of valve leaks on a regeneration process for dryers. • Setting alerts as early as possible.
<p>Making scenarios comparisons available</p>		<p>Comparing different scenarios (e.g. campaigns) to determine decision points or to define focus of further investigation.</p>	<p>EXAMPLE Determining optimal dryer switch time as a trade off between different parameters.</p>

Fig 1. ARLANXEO use cases: What can production analytics deliver?

ARLANXEO started to expand the implementation and began to train a wider range of users across multiple sites. ARLANXEO's global IT support structure is set up in such a way that all sites get the required amount of support from both ARLANXEO as well as TrendMiner specialists in implementing the software at their site.

These use cases helped ARLANXEO to truly understand what benefits self-service industrial analytics could bring them. By using the TrendMiner platform, ArlanxEO was able to:

- Increase the quality of their analyses by using more comprehensive sets of data.
- Get easy access to historical data.
- Gain complex process insights by analyzing a broader set of parameters across multiple steps in the process.
- Integrate root cause analysis and process monitoring to define future alerts, start looking for similarities and optimize processes.
- Compare various scenarios to statistically find out the performance parameters to meet the best product quality.

“You cannot wait until you have a final perfect solution before you start using big data tools. It’s better to do it in parallel: start using analytics while you continue to gather data.”

Hermann Schuster
Chief Digital Officer at ARLANXEO

BENEFITS

FROM UNPLANNED DOWNTIME TO COST REDUCTION

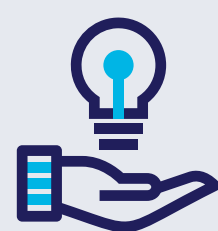
Implementing self-service industrial analytics at their sites helped ARLANXEO to leverage the digitalization journey at the operational level. With the support of TrendMiner, ARLANXEO improved its production process, contextualized asset performance and created more business value by cross-asset performance monitoring.

“It is interesting that we can now integrate root cause analysis and process monitoring in a better way to create alerts. This enables us to start looking for similarities and start applying our insights from the root cause analysis in our production process.”

Hermann Schuster
Chief Digital Officer at ARLANXEO

TrendMiner’s capabilities to analyze, monitor and predict process and asset performance helped ARLANXEO to:

- Search for and find process cycles and specific behaviors very fast.
- Create fingerprints to Monitor normal process behavior.
- Find root causes for unplanned downtime making Predictive Maintenance possible.
- Reduce very expensive asset repair costs by avoiding corrosion.
- Cost savings due to reduced valve leakages.
- Reduced environmental impact by reducing spills.



WHAT DOES A SELF-SERVICE ANALYTICS PROJECT WITH TRENDMINER LOOK LIKE?

Structuring your self-service analytics project well is essential for a successful outcome and gaining business value. To make sure you make the most out of your self-service analytics project, at TrendMiner we always use three essential building blocks.

Curious what self-service industrial analytics with TrendMiner looks like?

[DOWNLOAD E-BOOK](#)

Want to see TrendMiner in practice? Then it's time to request a demo:

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