



AstraZeneca: Easy Access to Production Info with SAS®

Maintaining reliable access to production data is part of the foundation of the constant productivity enhancements taking place at AstraZeneca, which – with 56,000 employees across the globe – is one of the world's leading pharmaceutical companies.

Industry

Life Sciences

Business Issue

Reduce manufacturing costs while ensuring fast, reliable reporting and analytics.

Solution

SAS provides an overall view and easy data access from the various production stages, and the information can be customized and shared as needed.

Benefits

Reports that once took two days to complete now take one minute; improved time savings and efficiency reduces manufacturing costs.

So when it came to ensuring product quality across the various complex production stages for its Turbuhaler product range, AstraZeneca turned to SAS. As a result, the Turbuhaler product Symbicort – an inhaled medication that treats asthma and chronic obstructive pulmonary disease and has annual sales of US\$1 billion – continues to gain market share through its efficacy and flexible use.

With SAS, AstraZeneca has faster and simpler access to production data, thereby ensuring streamlined production processes for the Turbuhaler products. The SAS Business Intelligence solution uses all relevant data in the manufacturing process to produce analyses, surveys and reports. The project was expected to allow scientists to compare notes more readily for enhanced quality and reduced variations that add up to time savings.

“Besides production data, the manufacturing process also includes a number of data sources to support production, such as planning systems and quality systems, and of course keeping track of all this data is absolutely crucial. A table might contain up to 80 million records,” says Eva Säfström, Process Engineer at AstraZeneca.

SAS shows commitment

Before the project got off the ground, a pilot study was implemented in which a few different suppliers were

tested. SAS and a competing supplier were asked to construct a prototype to produce a number of predefined special reports, using the entire organization as a target group.

“SAS demonstrated enormous commitment during the pilot study, and we were able to identify a lot of different benefits with SAS at an early stage,” Säfström says. “SAS software works very well together with AstraZeneca's data, which is technical and scientific in nature. SAS reporting tools worked very well for production of the special reports. SAS was also very easy to use, and it included a number of special functions that really appealed to us.”

SAS met the required specifications, thus beating the other supplier. And then it was time to launch the project and start quality assurance in earnest, as demanded by Good Manufacturing Practice (GMP).

“Developing the test environment in parallel with the production environment was a very labor-intensive job, and 20 or so people were involved in all,” says Henrik Åkerblom, Process Engineer at AstraZeneca.

“After about 18 months, we commissioned the project. Users and recipients of the system were well-prepared by then. The long installation period was largely due to the demands made in terms of quality assurance and the large

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AstraZeneca

number of data sources linked to the database. But once everything was actually up and running, the system and input of historical data went extremely well,” Åkerblom says.

All players ‘in the know’

Around 50 employees are users and active recipients of the reports at AstraZeneca. The management, process engineers and statisticians are the primary user groups. Management receives reports and regular data updates on yields and trends. The engineers receive complete reports and are also able to develop their own, allowing them to monitor trends, detect discrepancies and gain access to quality-assured data for analysis, as well as a broad range of tools for investigations. The statisticians receive all the relevant data quality-assured and accessible for analysis, as well as a broad selection of SAS offerings.

“We produce standard reports for management, among other things, and we have received a very positive response in-house. It is exciting to see the organization is learning how to set requirements effectively and is able to come up with new requests and requirements for development and modernization,” Åkerblom says.

“We are currently running analyses and evaluations that were not possible before or else that were very time-consuming as our data used to be spread out over lots of different systems and archives. The quality of the data is a lot better, and with the more frequent updates we can now see major differences in terms of time. SAS has helped us to improve and become more secure. A report which might have taken us two full days to produce before can now be completed in about a minute,” Säfström says.

Using SAS Enterprise BI Server as a basis, the three different user groups can work simultaneously with three different tools in a controlled, validated environment. The entire organization, including management, will use the information delivery portal. The process engineers will use SAS Enterprise Guide®, while the statisticians will continue using the traditional SAS environment.

Anticipated benefits of the project are:

- Opportunity for more efficient improvement work thanks to easy access to data for fast, simple analysis of the current situation.
- Opportunity to reduce Turbuhaler manufacturing costs.

- Opportunity to reduce variations in processes – that is, stable production with no surprises. This creates a foundation for high levels of delivery reliability and lower levels of capital tied up in stock.
- Ability for users to find that the method used for collating information is better than before and to run root-cause analyses a lot more quickly than before.

Results from the project:

- “One version of the truth” – everyone is able to access the same quality-assured data for analysis, assessment and decisions.
- Information is published automatically.
- A better overall view has been created by giving all recipients and users access to data from all process stages, while at the same time the reports can be customized and adapted entirely to suit user requirements.
- Publication on the portal creates a more automatic process, and one does not need to reinvent the wheel time after time.
- Opportunity to share knowledge with individuals and groups.



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