Analyzing cheese batches to reduce food waste

Analyzing all the parameters involved in cheese-making to better understand the process and maximize the yield.

Notilyze achieved this using
• SAS Studio • SAS Visual Analytics • SAS Model Studio • SAS Intelligent Decisioning

SAS Hackathon 2023 • Industry Winner in Manufacturing • Manufacturing Track

Challenge

The Netherlands is a major center of cheese production, but the processes for production are not always optimal.

- Parameters that may vary include the quality of the milk and the methods used to make cheese.
- This results in considerable variations in the quality and amount of cheese produced.
- Optimizing the process could improve the quality, increase the production volumes, and reduce the energy requirements.

Innovation

This solution uses SAS® Viya® to bring together data on all the elements of the cheese-making process and create recommendations to improve yield.

Notilyze:

- Collected and analyzed data on key quality metrics in cheese-making such as pH, moisture content and flavor profile.
- Designed a dashboard to better understand the role of each component in cheese-making.
- Used the dashboard to develop a model to predict yield.
- Developed an API to make recommendations to manufacturers to improve the process.

Impact

The Notilyze solution will help manufacturers to improve the production process for cheese.

- It will enable them to maximize their yield while maintaining the quality of cheese.
- It should also reduce energy requirements by improving efficiency.
- The principles could be widely used across manufacturing processes for other food products.

> "Think about the financial benefits of being able to sell more cheese and increase your profits. And what about the environmental benefits of using fewer resources to produce more cheese? And all while ensuring that customers keep enjoying high quality cheese!"
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> Colin Nugteren • Chief Analytics Officer • Notilyze