We add value
to your bread and flour

Experience unrivaled possibilities,
backed by state-of-the-art tools and technology
Discover the only hybrid services in the Baking and Milling industry

Applied
Food Science and Industrial Analytics
For a better Flour and Bread

Accelerate Growth and Keep Competition at Bay

While millers and bakers have long experience in processes, raw materials and ingredients, the staggering increase in demand for new products is new to them. If we add to this and the fierce price competition then it is more than evident that an entire new approach is required.

Product Development

10x faster, 5x more reliable
4x less cost

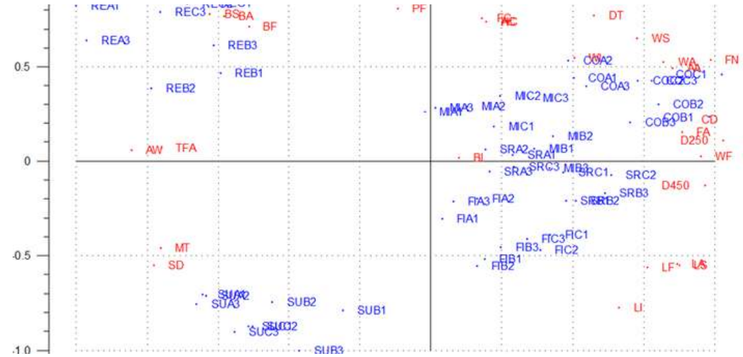
We apply Experimental Design tactics which are much more efficient and allow us to fully understand the quality issues, to isolate specific problems, to build predictive models, and to develop new products very fast

Production Optimization & Quality

Discover Root Cause
Eliminate variation

Highly sophisticated statistics methods such as multivariate analysis is used to discover the root cause and to eliminate variation. Modelling leads to process optimization and thus to stable product quality

A Data Based Decision MakingModel



Response based On Facts
Not on Beliefs

This enables the quality department to respond fast and accurate to process and raw materials variability by enabling high-performance additives.

Data-Driven Decisions = Real Business Benefits

Today's successful millers and bakers of all sizes are looking to accelerate development, reduce process-related costs, and improve time to market.

Meet the Challenges

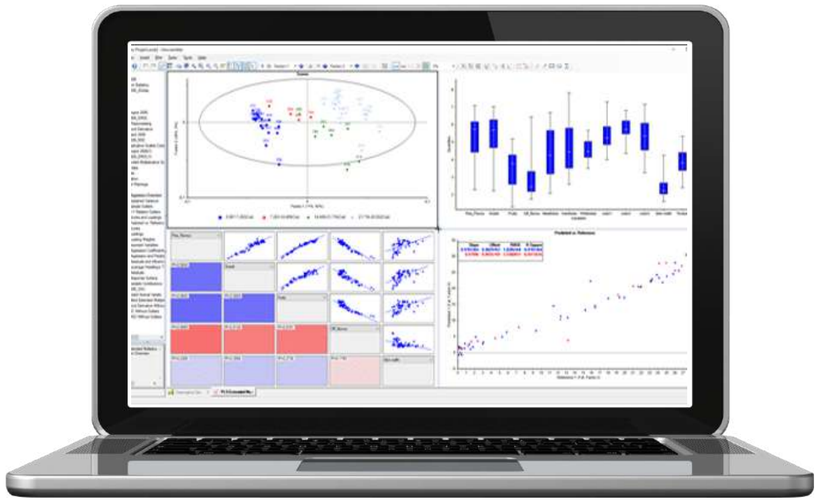
Consider the situation where a biscuit maker is looking to imitate a specific product from its main competitor. In many cases the ingredients could be up to 20, add to this the biscuit making process variables like dough mixing, molding, and oven temperature. It will be a Herculean task if not impossible for the R &D department to deliver the needed outcome without utilizing the Advanced Industrial Analytics tools.

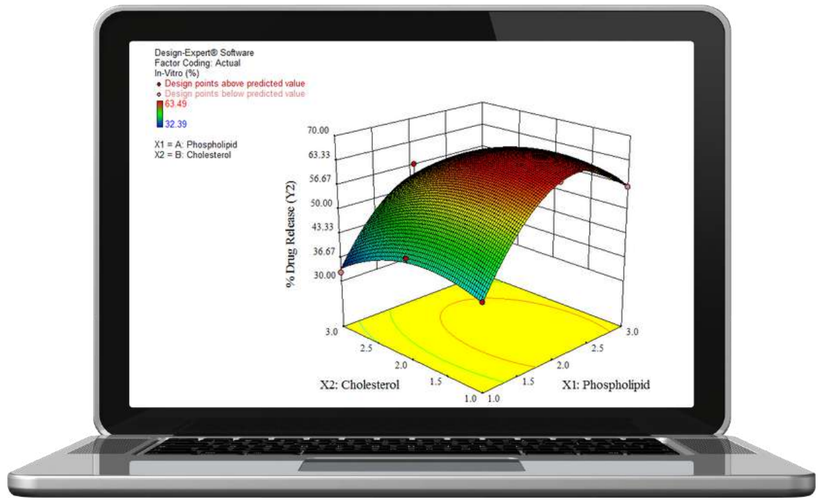
The same applies to a flour mill, consider a situation where the technical department wants to know in advance how the change of the milling settings could affect the flour quality and what kind of additives could be used in order to get the specified rheological behavior.

Gain advantage over competition

Adopting powerful techniques, methods, and tactics which are used widely by pharmaceuticals and biotechnology companies

Concept overview





MVA Methods like PCA are employed to describe the current state. These Data Mining tools allow to cope with multiple variables simultaneously and to ncover the influential variables and the relationship have with each other. This kind of analysis includes also methods like Classification, e.g. Cluster analysis, Regression analysis and Predictive Modeling. The Quality department has a better understanding of the product, the process, the relationship between the variables and the technical differences from the competition. Thus, enable them to define the areas of improvement.

Experimental Design Tactics like DOE are employed in order to reduce experimentation to the minimum and to uncover the important interactions in the system. This begins by investigating the various factors affecting the final result, such as process settings, raw materials blends, additives, and much more. The scope is to rate them according to their importance and to define the ‘sweet spot’. For example, to find which formula of additives will give the desired result for specified wheat quality and mill settings. These actions lead to the development of an operational envelope where the process and results are stable even when subjected to changes.

Ever wonder if you can do more with less?

Hybrid Services = Applied Chemometrics + High performance Ingredients

Are you looking to

- Develop new types of flour, bread, biscuits, cakes etc.?
- Benchmark competitors products?
- Better understand how key variables like protein, particle size, starch damage etc., are related with the baking performance?
- Know how empirical rheology tests like alveograph, farinograph, extensiograph are related bread making performance?
- Better understandhow milling diagram affect flour quality?
- Better understand how breadmaking process affect bread quality?

Are you looking for better flour and bread while maintaining low production costs?

Let's talk