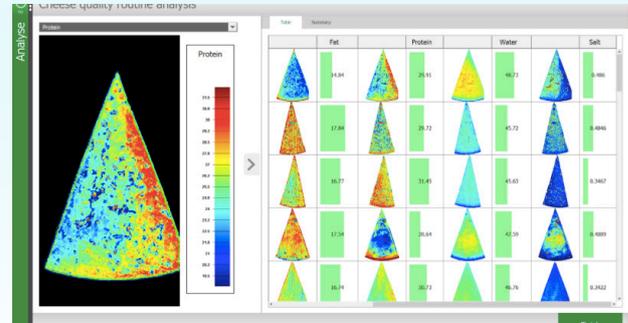


# Quality monitoring using hyperspectral camera technology

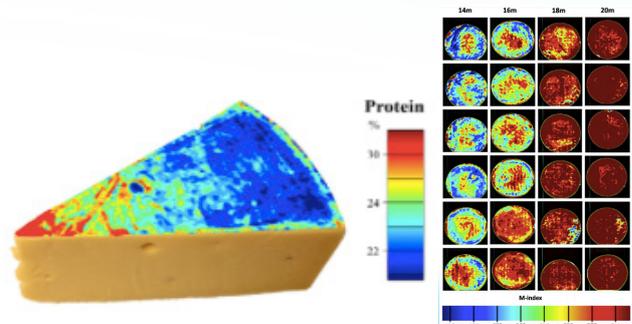
**Challenge.** To ensure the quality of a food product, such as cheese, the manufacturer needs to control the content of the product when it comes to the amounts of protein, fat, water etc., and detect contaminants such as mold. The quality control is mainly done by taking product samples from the process and using manual methods such as laboratory testing or sensoric testing of smell and taste. The problem with these methods is that they are slow, expensive and do not provide continuous and representative information about the variability in the quality.

**Our solution.** Using a hyperspectral camera that can see near infrared light together with an application developed in the Breeze software, the quality can be measured in real time directly in the process. Every cheese can be analysed and key parameters like the content of fat, water or protein can be measured. Using the Breeze Runtime software the results from the continuous analysis can be integrated with the existing process IT systems and used for quality monitoring.

**Benefits.** The analysis is fast, non-destructive and provides continuous quality control of every cheese manufactured. This helps the manufacturer to run the process in an efficient way and at the same time ensuring a high quality of the finished product.



Cheese quality analysis using the Breeze software



Visualization showing distributed fat and maturity stages.

## A complete toolbox.

The powerful and flexible analysis software enables a wide range of applications such as sorting, process monitoring, quality analysis and detection of foreign objects.

The suite takes you from idea to solution by creating value in R&D, application development and in online processes.

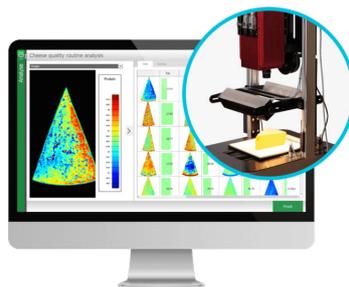
### evince.

Exploratory analysis for R&D applications.



### breeze.

Modeling and routine analysis for application development or in lab.



### breeze runtime.

Realtime analysis for sorting and monitoring online in process.

