A collaborative platform economy to accelerate the democratization of NIR-based quality control in the food industry

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Around the world, mounting pressure on food systems because of increasing food fraud, new consumer demands, and geopolitical crisis, has highlighted the need for transparency and traceability in the industry. In the age of digital technologies, the food industry has been using NIR (Near Infrared) technology due to its many advantages over traditional food analysis methods: cheaper, faster, non-destructive, efficient, and replicable. At the same time, the development of cheaper and higher performing desktop and portable equipment, leads to believe that the implementation of NIR technology in quality control systems of food companies still has a long way to go.

Despite the advances in the field, the application of NIR technology still necessitates expert personnel to deploy their knowledge into the creation of models and calibrations, making this the largest barrier to adoption of the technology. Meanwhile, universities, research centres and wet labs with NIR application experience, have been limited in their ability to disseminate the knowledge since no shared channel for distribution of models, calibrations and additional services exists.

With these challenges in mind, at Chemometric Brain we have developed a SaaS (Software as a Service Solution) and collaborative platform with the goal to accelerate the democratization of NIR-based quality control in the food industry through the dissemination and promotion of the knowledge generated (i.e., spectra libraries, qualitative models, and quantitative calibrations) by public/private research institutions in a model that rewards the knowledge creators.

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