

CAPPA USE PHOTONIC TECHNOLOGY TO GET THE SLICE RIGHT— EVERY TIME



BACKGROUND

Four Star Pizza Wilton (ZZ Ltd) is an independently owned franchise, part of the Irish-owned Four Star Pizza Company. Operating in Ireland for nearly 30 years, Four Star Pizza offers a carry-out service and home delivery of their unique pizza recipe.

Mozzarella cheese is a major ingredient in Four Star Pizza recipes and accounts for a high percentage of their running costs. If the ingredients in the mozzarella vary as a result of supply chain issues or seasonal changes, it can alter the taste and also cause the cheese to burn when the pizza is being prepared.

THE NEED

To avoid these issues, Four Star Pizza Wilton wanted to develop a quality control test to determine the maturity of their mozzarella cheese. Finding that no such test for mozzarella was available for a commercial business, the company approached The Centre for Advanced Photonics & Process Analysis (CAPPA), a research centre of CIT.

THE SOLUTION

CAPPA initially began working with Four Star by exploring the viability of the project. They also assisted the company with their application to Enterprise Ireland to fund the research, through the Innovation Voucher Initiative.

Then, using FTIR and Raman spectrometry, CAPPA monitored the changes in the mozzarella cheese as it matured over a number of months. A maturity model was developed from the spectra gathered using multivariate analysis. CAPPA also developed a number of models to accommodate the differing fat content of the cheeses used by Four Star Pizza.



BENEFITS OF THE ENGAGEMENT

The opportunity to work with CAPPA through the Innovation Voucher initiative has given Four Star Pizza access to expertise and equipment not readily available to an SME. By developing this quality control standard, the company will be able to ensure customer satisfaction and minimise loss during the production process. As mozzarella is central to their production, maintaining such high standards will contribute to the continued success of the business.

“The CAPPA group maintained contact with us during the entire process where they demonstrated commitment to understanding the issues and the impact to our business. The group were successful in building a quality control model to allow us assess the maturity of mozzarella which will help us to ensure customer satisfaction. We would highly recommend the CAPPA group and would have no hesitation in working with the group in the future.”

- Seamus Lane, Owner, Four Star Pizza (ZZ Ltd).

Contact us to connect your Enterprise with MTU. Email us at extended.campusCork@mtu.ie to discuss a collaboration to suit your needs!