

Resilient?

We always use the word resilient to describe the food and beverage industry, but is the pressure starting to yield cracks?

Professor Chris Elliott discusses food system resilience We celebrate 60 years of Codex Alimentarius





NEW N-LIGHT[™] ENVIRONMENTAL SCREENING EMPOWERING PRODUCTION TO EMBRACE FOOD SAFETY AT THE LINE 24/7

Reimagine your approach to food safety Fast, flexible and mobile for wherever you need it

Easy and safe to use, tamper-proof and accessible **for anyone** Affordable, accurate and high-frequency testing whenever needed

Managing your food safety risks for L.monocytogenes, Listeria spp., Salmonella, E.coli and ATP



RAPID Reliable results in 24 hours

SAFE Closed system for lab-free screening



COST-EFFECTIVE Affordable high frequency testing



NILICOLIT

"Thanks to NEMIS, we have continuously improved our environmental monitoring and are looking forward to future projects."

Reto Benz, Quality manager, Bianchi

N-LIGHT

PREVENT. DETECT. ACT.



EXPERT VIEW



Stefania Cesarano Key Account Manager, NEMIS Technologies

Empowering production to embrace food safety at the line 24/7

Ready-to-eat (RTE) meals are products typically processed, packaged and refrigerated for consumption without additional cooking by the consumer. RTE meals have become increasingly popular due to their convenience; eliminating preparation time, while offering cost efficiency and minimal waste.

However, production of multi-ingredient RTE products comes with its own set of challenges. Sandwiches, salads and sushi present a variety of microbiological risks due to the combination of ingredients and the potential for cross-contamination during preparation and storage.

Timely risk mitigation is key to effectively managing the RTE supply chain

Timely pathogen risk management is critical as they can be introduced at any stage in the supply chain. However, standard microbiology testing is traditionally time-consuming and laborious, requiring specialised personnel and equipment. Samples taken from the production line and sent to either an in-house or external laboratory can take several days for results. RTE products are characterised by having short shelf-lives and are usually released before lab results are available.

Reimagining your approach to food safety with the N-Light[™] screening platform

The introduction of new rapid testing technologies enables a shift towards decentralising accountability and action to the line, reimagining food safety by placing responsibility for it in the hands of those closest to the process. The Swiss-made N-Light[™] screening platform was developed with exactly that in mind.

It enables high-frequency testing whenever it is needed, without requiring expensive laboratory equipment or specialised training. Its competitive pricing makes it a cost-effective, scalable solution for large operations without compromising on the accuracy and reliability of results. While traditional laboratory testing relies on a chain of custody to ensure that samples are not tampered with during testing, the N-LightTM biosafety cap circumvents this. Combined with its user-friendliness, the technology is designed to be accessible to everyone, regardless of their level of expertise or training.

The platform is fast, flexible and mobile, making it an ideal solution for a variety of settings. The technology can be used wherever needed without requiring a laboratory infrastructure. This flexibility allows for rapid and efficient testing on-site, helping to identify potential problems before they escalate into full-blown food safety crises.

Real value through real performance in RTE production

Food production environments are characterised by a high complexity in both matrix and microflora, from food residues, disinfectants and other organic matter. While performance testing in a laboratory setting is crucial, NEMIS ventured into the unknown to test the limits of its technology directly in the field.

In collaboration with an RTE company, 140 samples were taken in zones 1 – 4 from critical points with varying degrees of cleanliness (**Table 1**). The incubated tubes were then taken to the laboratory and spiked with 200 cfu/ml L. monocytogenes. The results demonstrated full alignment with the ISO method within the intended use while also achieving an impressive 77.8 percent accuracy outside its intended use, including some particularly challenging samples, such as raw mayonnaise.

Thus, for trend analysis, the N-Light[™] screening platform is a valuable tool.

In conclusion, the N-Light[™] screening platform has the potential to revolutionise food safety by enabling almost real-time monitoring of potential risks directly at the production line. By adopting this technology, food producers can improve their practices and bring food safety closer to where risks occur, delivering food safety at the production line 24/7. □



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Table 1

Intended use Outside intended use NEMIS ISO NEMIS ISO Zone 1 29/29 29/29 12/17 17/17 4/5 Zone 2 17/1717/175/5 Zone 3 6/6 12/1414/146/6 3/3 3/3 Zone 4 n/a n/a Accuracy 100.0 100.0 77.8 100.0