

"One key initiative includes our summer scholars programme" One key initiative includes our summer scholars programme, whereby undergraduate students spend a summer undertaking research with Cornell faculty. This has shown to be a great way to recruit students into food science careers; some participants may go straight to food industry jobs after their degree, but many first pursue a food science graduate degree.

GL: As a whole, the food industry needs keep pace with current science and technology developments – and mentoring programmes, like that at Cornell, are a powerful tool to strengthen food safety science and inspire graduates to join us.

XD: I think the potential is there to greatly expand the number of researchers in food safety as it is a remarkably multi- and cross-disciplinary subject, with career opportunities in both private and public sectors, as well as academia. By establishing these partnerships through the natural career paths of industry and academia, I believe we are well positioned to raise awareness of this critical topic among students and enthuse the future workforce.

Q: Is the growing consumer demand for a wider variety of foods increasing microbial risk in the food supply chain? If so, what steps should both industry and consumers take to protect themselves?

GL: I would say so. Logically, a wider variety of foods on the market could increase microbial risk as the supply chain pathways are altered and expanded. This, in turn, requires the industry to adjust food safety management systems to be risk based. Novel foods and trends, like plant-based or insect proteins, bring a new set of challenges, requiring employees to increase their knowledge base to tackle safety risks. This is why Mars has a comprehensive Quality Management Program (QMP); to help us achieve the highest standards of quality and food safety management practices every day through continuous improvement.

XD: It also means that we need to push for more transparent and traceable supply chains through technology, advocacy and regulation. For example, recently at the University of Georgia (UGA) we

EXPERT VIEW



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Richard Werran BSI Director Food and Retail Supply Chain



Cybercrime in food

Digital solutions can transform the way in which our food and beverage system works, but cybercriminals lie in wait. Mark Brown and Richard Werran lend their expertise on being digitally safe.

In our increasingly connected world, newfound risks including misinformation, digital deception and a blurring of the lines between personal, product and digital safety are now threatening organisational and societal trust in digital systems and technologies. Cybersecurity threats are growing in frequency and sophistication, with malware attacks tripling and ransomware attacks quadrupling in recent years.

Unlike other sectors, the food industry is highly resistant to change, and the challenge is for the sector to realise how data analytics and data science can transform production processes and optimise supply chains. This starts with the move from a siloed technology-focused discussion to an operational discussion across functions.

The industry is beginning to realise that a data mountain has no value unless wisdom and insights are extracted from it. In simple terms, this means moving from data populating spreadsheets into intelligence to achieve productivity gains and cost savings. Data science will take route in the food industry in the coming five years, provided those companies that unlock its potential a competitive edge.

Brands and major retailers are the first to recognise the benefits of insights into their production and supply chains; not only to drive efficiencies, but to predict store, manufacturing site, or supply chain faults before they become problems. The potential to move to an 'always on' compliance approach will eventually overturn the traditional model of an annual inspection or audit, resulting in greater compliance and consistency, along with safer products at a reduced cost.

Cybersecurity is one of the biggest challenges our sector faces and as such, companies need help in understanding what the risks are, how to manage them, and what solutions are available. With more than 77,500 clients in 195 countries, BSI is well equipped to protect its customers from the vulnerabilities that can come with a digital supply chain.



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