

TRUST AND SECURITY

How LR's approach to Industry 4.0 is building trust and resilience in supply chains.



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Philippa Charlton
Marketing Director,
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We are helping some of the world's largest food and hospitality businesses to extract value from their data and address threats to their in-house food safety, health and safety, sustainability and supply chain standards. We do this by delivering bespoke solutions combining technology, data analytics and deep technical expertise.

As it has developed, Industry 4.0 technology has enabled businesses to gather an ever-increasing amount of data. However, the challenge has been in deciphering the potential lessons hidden within the numbers. Leveraging big data effectively to gain insights that can lead to safety, quality and productivity improvements requires both broad industry knowledge and the ability to customise solutions to an individual customer's exact needs.

A large component of Industry 4.0 seeks to use always-on sensors embedded in machines to transmit real-time data to networked IT systems. In turn, these systems apply machine learning and artificial intelligence algorithms to analyse and gain insights from the data and adjust automatically.

In response, LR is working to assure and qualify these new Industry 4.0 ecosystems. It is analysing how they are changing industries, making sure those changes are safe and understanding how we can use that data to support compliance. This is the journey to 'Assurance 4.0.' As LR's BA&IS Marketing Director, Philippa Charlton, points out: "Evaluating new technology and producing guidance on how to apply it safely is what we have always done, across all of the sectors we work in."

How LR is delivering Assurance 4.0

LR is working with brands to build trust and resilience in their supply chains through customised assurance, going beyond simple certification. Customised assurance means delivering solutions that are specifically designed to meet a customer's immediate needs, future targets and risk reduction plans, whilst always pushing them to look further ahead and be ready for the next challenge.

Stuart Kelly, Global Head of Commercial in BA&IS's Customised Assurance division, explains: "We listen to our customers and challenge their thinking to identify and agree clear needs. We then create bespoke programmes and solutions that move at the client's desired pace. We use the results and insight gained to recommend changes that will further drive assurance and brand integrity. We understand that one size does not fit all and believe in building long-term partnerships based on trust and results."

LR's solutions are enabling businesses to translate their data into meaningful and risk mitigating actions and audit programmes, all supported by insight-led technical account management and underpinned by real-time data from its customer portals and dashboards. Investing in technology and digital innovation is key to creating solutions that can match both the pace of Industry 4.0 development and evolving consumer requirements. However, this has to be matched by a high level of technical expertise and industry experience.

"The similarities between different sectors allows us to pool resources and learning," Stuart explains. "We work to provide aggregated risk views for customers and act as their expert support who can spot and predict issues or suggest optimisation through our view across so many systems and industries."

Assurance within the food sector

Though quality, origin and contamination are problems in many sectors, there are a wide range of additional challenges and complexities when delivering assurance for the food sector. As the wider public becomes more aware of the importance of ethical sourcing, human rights and the risk of food fraud and substitution, the trust of the consumer is vital.

Plastic reduction and elimination and waste reduction are key areas of focus as we come under increasing pressure to feed the world's growing population with limited resources. Real-time monitoring and the use of AI to predict and alert to potential risks before they occur is another goal for the food sector, when preventing a product recall can potentially save millions in costs, time, waste and brand reputational damage.

Though audit and certification will still have a huge part to play in the food sector, the leaders of tomorrow will be looking for increasingly innovative digital solutions, such as 24/7 monitoring of critical information using different interventions such as remote auditing of key risks, micro learning and risk modelling.



Cybersecurity

With the rapid spread of Internet of Things (IoT) platforms and other sensors, the world is increasingly dependent on interconnected operating technology. This technology was once entirely separated from the internet and was neither designed nor installed with cybersecurity in mind. As it moves online, it inevitably becomes exposed to cyber threats.

Faced with the growing need for information and operational technology security, LR acquired cybersecurity specialists Nettitude in 2018. Nettitude focuses on delivering threat-led services for our customers, helping organisations to understand vulnerabilities across their people, process, data and technology assets. By delivering sophisticated attack simulations, Nettitude also supports organisations in maturing their detection and response capability.

Rowland Johnson, CEO of Nettitude, explains: “The greatest challenge is the rate of expansion of new technology, with old models of cybersecurity having to rapidly evolve to keep up with the increasing number of devices, applications and data. The explosion of data stored in the cloud, which is also being made available to customers and the wider supply chain, means the attack surface that was once well defined is now amorphous in nature.”

With new IoT devices being launched every day, organisations’ reliance on data presents new and unparalleled risks to organisations across the globe. Much like Assurance 4.0, Rowland adds “We are using our expertise in cybersecurity to develop new and innovative approaches that harness machine learning to address the vulnerabilities in people, process, data and technology.”

CASE STUDY

Using real world threat intelligence to protect against cyber attacks.

The challenge

The world we live in is adapting and becoming more reliant on technology and data. While this brings many positives to our personal and professional lives, it also leads us to a time of unprecedented risk.

There is a lack of understanding across businesses of how a cyber attack could affect their critical business systems operationally and financially and failure to manage cyber risks leaves organisations open to attacks and costly data breaches.

The solution

Following the acquisition of award-winning cybersecurity specialists Nettitude, LR now offers a wide portfolio of cybersecurity assurance services designed to help customers identify, protect, detect, respond and recover from cyber threats. An example of where Nettitude can help is using the Red Teaming assurance test which builds on penetration testing by having a much wider scope and remit both in terms of attack surfaces looked at and in the level on controls that are tested. Over a period of 10 weeks we can run a scenario-based simulation against critical systems for any client. This is based on in-depth investigations, realistic simulations and detailed analysis of the customers’ ability to defend, detect and respond to three cyber scenarios.

The result

As the Red Teaming test is built on real world threat intelligence, the scenarios are simulated and then detection and response rate evaluated. This delivers pragmatic and realistic insights to key stakeholders to help them focus on remediation effort, maturity and improvement planning to help protect their business.



LR has assessed fisheries on every continent and in 40 countries to the Marine Stewardship Council (MSC) Fisheries Standard and together with the ASC standard has certified more than 100 species of seafood.



CASE STUDY

Ensuring sustainable seafood choices.

The challenge

The world's oceans are under increasing pressure from threats such as climate change and overfishing, whilst consumers are increasingly looking for sustainable choices for seafood. A rapidly growing requirement for sustainable protein is driving demand that is increasingly being met by aquaculture fish farms which now provide us with almost as much of our seafood as commercial wild caught fisheries.

The need to mitigate the environmental impacts of fishing and aquaculture are increasingly in the public consciousness. This combined with the globalisation of food chains and suppliers mean that the complexity and potential risks of the seafood product business have increased.

For seafood producers, it is important to meet the safety, quality and social compliance requirements of manufacturers and indeed the consumer who wants to know that the seafood they eat is safe and sustainably sourced.

The solution

It's therefore essential that the sector implements systems to ensure it continues to meet not just consumption requirements, but also environmental and social criteria. Shining examples of best practice are the Aquaculture Stewardship Council's (ASC) farm fish standard, the leading standard for the farmed seafood sector, and the Marine Stewardship Council (MSC) fisheries standard.

LR delivers assurance against ASC and MSC certification, a signpost to retailers and consumers that producers are minimising the environmental and social impact of their activities, while meeting industry best practice. Robust assurance is the common thread that links the challenges facing organisations today and helps build a sustainable future for us all.

The result

Through rigorous and thorough assessments, we have helped to drive sustainability changes across many global fisheries ensuring fish populations are productive and healthy, that impacts on other species and habitats are minimised to ensure a healthy ecosystem, and that fisheries are effectively managed through ongoing environmental and legal changes.