



EXECUTIVE SUMMARY

25th-28th
FEBRUARY 2019

NICE
FRANCE

tcgfoodsafety.com

#gfsi19

GFSI CONFERENCE



2001 | 2002
GENEVA, SWITZERLAND

2004 | 2009 | 2013
BARCELONA, SPAIN

2005
ROME, ITALY

2006
PARIS, FRANCE

2007
MUNICH, GERMANY

2008
AMSTERDAM, THE NETHERLANDS

2010
WASHINGTON D.C., USA

#gfsi19 IN NUMBERS

18th edition



Delegates rated GFSI Conference above other events at **4.10** out of 5 stars.

80% of delegates plan to attend GFSI 2020 in Seattle.

DIVERSITY

64
countries

TOP 5 COUNTRIES

- 1 USA
- 2 France
- 3 UK
- 4 Japan
- 5 Netherlands

5 DAYS OF SESSIONS, MEETINGS AND EVENTS

- 75** Speakers
- 33** Exhibitors
- 10** Special Sessions
- 6** Tech Talks
- 2** Discovery Tours
- 5** Award Winners
- 125** Participants at 4th G2B Meeting (government-to-business meeting)
- 29** Governments
- 38** Governmental Agencies
- 10** Intergovernmental Organisations

THE TALK ABOUT #GFSI19



TWITTER & FACEBOOK

1.5K

#gfsi19 Posts
During Conference Week

2.9K

Engagement

985.5M

Potential Reach



LINKEDIN

29K+

Group Members



YOUTUBE

27K+

Views on 2 new GFSI
Web Series Episodes

1,000
delegates
(largest in Europe)



2011
LONDON, UK

2012
ORLANDO, USA

2014
ANAHEIM, USA

2015
KUALA LUMPUR, MALAYSIA

2016
BERLIN, GERMANY

2017
HOUSTON, USA

2018
TOKYO, JAPAN

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INTRODUCTION

After thirteen years abroad, the GFSI Conference returned to the Global Food Safety Initiative's home country of France for the 18th edition of the world's biggest conversation for food safety. The conference attracted over 1000 delegates, who represented more than 60 countries and spanned the food industry, academia, the public sector and beyond, making it the largest event GFSI has ever held in Europe.

The hand-curated selection of speakers was as diverse as the delegation, with each session taking care to give a voice to various players involved in food safety. Delegates heard from some of the world's most prominent CEOs in the food industry, including **Emmanuel Faber of Danone** and **Dirk Van de Put of Mondelez**, as well as eminent academics, consumer advocates and regulatory decision-makers from around the globe.

Each of the speakers addressed the theme of the conference, **emerging challenges and the future of food safety**, from a unique perspective informed by individual experiences and observations. Delegates left Nice with a greater understanding

of the challenges facing every link in the food supply chain and the solutions available to solve them.

Despite the diversity of opinions on display, the speakers came to consensus on key topics. All agreed collaboration and communication are the conduit to truly safe food, and urged that the consumer be part of that conversation. Though speakers discussed cutting-edge technologies such as blockchain and drones with enthusiasm, they also reminded delegates of the perennial importance of education, outreach and transparency.

This year's conference marks the pinnacle of a year lauded with successes for GFSI, from increasingly productive public-private partnerships to broader presence across the world's markets. As we look towards the future of food safety, we can be sure that GFSI will remain a central player in the mission to provide safe food for consumers everywhere.

CONFERENCE AT A GLANCE

	MONDAY 25th	TUESDAY 26th	WEDNESDAY 27th	THURSDAY 28th	FRIDAY 1st
MORNING			Special Sessions <i>Diversey / DNV GL / Greenfence / GS1</i> 08.15-09.15	Special Sessions <i>NSF / Rentokil Initial / SAI Global / SGS</i> 08.15-09.15	
		Welcome Coffee GFSI & You 09.30-11.15	Plenary Session & Awards Ceremony 09.30-11.00	Breakout Sessions <i>Hermès BO7 / Athéna BO8 / Apollon BO9</i> 09.30-10.45	
	Discovery Tour <i>Testo</i> (all day)	Special Sessions <i>Ecolab / Bureau Veritas</i> 11.30-12.15	Networking Break 11.00-11.45	Networking Break 10.45-11.30	
LUNCH	GFSI Board Meetings <i>Amazon</i> (by invitation only)		Breakout Sessions <i>Apollon BO1 / Hermès BO2 / Athéna BO3</i> 11.45-13.00	Closing Plenary Session 11.30-13.00	GFSI Technical Working Group Meetings <i>Transparency-One</i> (by invitation only)
		Delegate Lunch <i>Yamato</i> 12.15-13.30	Delegate Lunch 13.00-14.20		
	G2B & G2G Meetings <i>Amazon</i> (by invitation only)				
AFTERNOON			DNV GL Survey 14.20-14.35		
		Opening Plenary Session 13.30-15.15	Plenary Session 14.35-16.00	GFSI Board & Technical Working Group Meetings <i>Transparency-One</i> (by invitation only)	
		Networking Break 15.15-16.00	Networking Break 16.00-16.45		
EVENING		Plenary Session 16.00-17.30	Breakout Sessions <i>Hermès BO4 / Apollon BO5 / Athéna BO6 / Uranie 3/F CPO Session</i> 16.45-18.00		
	GFSI Board Dinner <i>Ecolab</i> (by invitation only)	Official Opening Cocktail in Exhibition Area <i>Danone</i> 17.45-19.00	Official Reception & Dinner <i>Greenfence</i> 19.30	GFSI TWG Dinner <i>Transparency-One</i> (by invitation only)	



PRE-CONFERENCE SESSION:

GFSI & You

The first morning of the GFSI Conference 2019 kicked off with an induction session that gave the stage to some of the top players who turn the wheels beneath GFSI. Intimately titled GFSI & You, the session served as a refresher on the mission

and activities of the Global Food Safety Initiative. The speakers covered the Initiative's origins, its recent achievements and the bright future open to companies that adopt the GFSI approach.

After last year's event in Tokyo, **GFSI Conference 2019 Committee Co-Chairs Pierre de Ginestel and Frédéric Rene** promised to bring a 'French accent' to the Nice edition. They held true to their word with a grand entrance in full Gallic costume, complete with berets and Breton shirts. **GFSI Director Véronique Discours-Buhot** joined in a matching striped dress.

'As the Director of GFSI and as a Frenchwoman, I am very pleased to welcome you to Nice for the 18th edition of the GFSI Conference,' she said in French, before switching to English to help the co-chairs give context to the GFSI Conference 2019 and the significance of its French setting.

'France is a very logical venue for this conference, because few places have such a passion for food,' said Frédéric, backdropped by enticing images of wine, cheese and croissants — as well as fried frogs' legs and garlic-stuffed *escargots*. He pointed to the recent inscription of the 'gastronomic meal of the French' into the UNESCO List of Intangible Heritage as a recognition of France's enduring position as a paragon of cuisine.

France's passion for food has long extended to safety, as Pierre highlighted with a brief lesson on the history of French food safety innovation. 'The founders of food safety are French,' he declared, introducing two revolutionary compatriots: Nicolas Appert, the so-called 'father of canning', and Louis Pasteur, inventor of pasteurisation.

Véronique turned the spotlight back to one of the most important recent food safety innovations to originate in France: GFSI itself. In its 19 years of history, the GFSI has only held one conference in France, making the 2019 return an occasion to celebrate. 'We are delighted to welcome you to this historic homecoming,' she said.

Mike Robach, Chairman of the GFSI Board of Directors, took the stage next to introduce the **strategic priorities** of GFSI. His presentation offered a crash course on the main pillars, activities and recent achievements of GFSI, a valuable resource for new delegates in particular.

'Who are we? We're a community,' he began, listing the various members of this community: manufacturers, retailers, food service providers, suppliers, accreditation bodies, academic partners, international and governmental organisations — and, most importantly, consumers. 'We're a global organisation, but we're only as good as we can be in the regions where we operate,' he continued, turning his focus to the Local Groups that lay down the GFSI groundwork around the world, from Europe to Asia to Latin America. With the addition of the newest group in Australia-New Zealand, the Local Groups are 'beginning to cover the globe,' said Mike.

Mike then outlined the **three main pillars** that give structure to the GFSI mission: **harmonisation, capacity building and public-private partnerships**. He identified the latter as an area where the GFSI has made significant recent achievements. 'We have had a lot of dialogue over the last few years, but now we're moving into a stage where we're putting action into place,' he said, itemising numbers that illustrate this action: GFSI now has 9 projects in place with 6 international organisations, and the most recent Government-to-Business meeting included 29 governments, 38 governmental agencies and 10 intergovernmental organisations for a total of 125 participants.

The vast and diverse number of people involved in GFSI was a recurring theme of the session, continuing with an update on the Board by **Anita Scholte Op Reimer and Gillian Kelle-**

her, Vice-Chairs of the Board. Anita presented a gallery of all 24 current members — an increase from last year's 21-strong board, despite some departures. After Gillian bid farewell to the 4 departing members, the 7 new faces introduced themselves via video.

The video asked the new members questions about their decision to join the board, from the pointed 'What are you looking forward to?' to the broad 'Why GFSI?' The members' answers revealed their enthusiasm for and dedication to their new role, from **Dan Fone of Walmart's** recognition of GFSI as 'the correct vehicle in which to share collective strengths' to **Alain Turenne of Walgreens'** hope to 'champion everyone's right to be happy and healthy via access to safe food.' 'Why GFSI? Because GFSI rocks!' concluded **Tom Wiester of Starbucks Coffee Company**.

'GFSI rocks with this big board,' agreed Véronique, retaking the stage to share updates on the GFSI Team: the managers and coordinators who keep the Initiative running behind the scenes. She noted that all of the team members, from the Senior Technical Managers to the GFSI Regional Managers, were present at Nice, ready to answer any questions curious delegates might have. 'If you meet with them, you will learn a lot,' she promised.

The remainder of the session was devoted to panel discussions that gave the floor to actors involved in GFSI's core activities, including **thought leadership, public-private partnerships and harmonisation**. Moderated by key members of the GFSI Team — **Senior Technical Manager Marie-Claude Quentin** and **Senior Project Manager Anne Gerardi** — the panels allowed the delegates to assign voices to some of the faces they saw in the board gallery and understand the time and effort they dedicate to making GFSI work.

The **Thought Leadership Panel** focused on GFSI's Technical Working Groups, hand-selected bodies of experts that collaborate to achieve mandates that address specific topics relevant to the food industry. Marie-Claude Quentin moderated a discussion among **Natalie Dyenson of Dole, Jean-Francois Legrand of BRF and Roy Kirby of Mondelēz**, all of whom have supported the efforts of Technical Working Groups as board liaisons.

Natalie Dyenson represented the Primary Production Working Group, which is adapting the GFSI benchmarking require-

ments to the needs of primary producers. She explained the process by which Technical Working Groups are formed: after the board decides on a concern to address, GFSI puts out a call for participation, chooses representatives that form a complete cross-section of the industry involved, and gives these participants a clear mandate and a timeline to achieve it. The outputs these groups create are 'something the industry can actually take and apply in real practice, and that helps small companies and big companies alike,' Natalie said.

Jean-Francois Legrand, who has been involved with the Technical Working Group on Husbandry Practices among others, lauded the groups for creating 'a very neutral place for industry experts to share their thoughts on very hot topics.' He cautioned to add, though, that discussion in the groups goes beyond the 'theoretical'; the teams of experts create actionable outputs that bring value 'for the industry and for all the stakeholders.'

Roy Kirby explained his work with groups focused on topics such as hygienic design and chemicals. The latter group made an especially groundbreaking achievement: they were the first GFSI Technical Working Group to publish their findings in a scientific journal. He emphasised the importance of keeping food safety discussion in the realm of science: 'I think too often the debate around food safety can get dragged into the emotional discussions,' he said, 'and I think our commitment to continuing that dialogue based on sound science is a really strong signal that we're sending out through the Technical Working Groups.'

Participants on the **Public-Private Partnerships Panel** parried moderator Anne Gerardi's questions about GFSI's various efforts to facilitate collaboration between these two spheres. The panelists — **Anthony Huggett of Nestlé, Carletta Ooton of Amazon and Mike Robach of Cargill** — described how these efforts have evolved during their tenure at GFSI.

Mike Robach, who leads the strategic effort on public-private partnerships as part of his role as Chair of the GFSI Board, began by recalling the first Government to Business (G2B) meeting in Berlin in 2016. 'I think that folks that were there remember that people were very careful about what they would say and how they would say it,' he admitted. However, at the most recent meeting — which took place the day before the conference — he observed a newfound level of openness and an enthusiasm to drive real change. 'The dialogue now has really borne a lot of fruit,' he said.





Anthony Huggett joined the panel as the board liaison for the GFSI CODEX Committee. As both organisations are concerned with standardising practices and protecting consumer health, Codex Alimentarius and GFSI have much to learn from one another. To that end, said Anthony, ‘GFSI is working jointly with CODEX to strengthen awareness on food safety and to bring a science-based, risk-driven approach from the food industry into the various agendas of CODEX.’ GFSI therefore elected to create a committee made up of experts from 6 companies, who provide input to CODEX committees on several topics: Food Hygiene, Contaminants, Antimicrobial Resistance and especially the CODEX Committee on Food Import and Export Inspection and Certification Systems (CCFIECS). ‘Now we’re all speaking bilingual CODEX-GFSI language,’ Anne said in response to Anthony’s fluency in CODEX acronyms.

Carletta Ooton, who serves as a board liaison for the GFSI Local Groups in Mexico and South Latin America, shared some updates on the two groups’ recent activities in order to illustrate the on-the-ground results that Local Groups can achieve in terms of public-private partnership. In Mexico, for example, the Official Journal of the Mexican Federation published the first voluntary norm on food safety — the culmination of 18 months of collaboration between GFSI, the Ministry of Economy and the general direction of standards. Meanwhile, the South LatAm Group is actively working with the Ministry of Agribusiness in Argentina to provide guidance and recommendation on aligning certifications with GFSI benchmarking requirements. ‘So a ton of work, and real exciting times in LatAm,’ said Carletta.

The **Harmonisation Panel** turned the audience’s attention to GFSI’s benchmarking requirements, which have long been at the core of GFSI’s activities. As board liaisons for the Stakeholders Advisory Forum, the team that develops GFSI’s benchmarking requirements, **Neil Marshal of The Coca-Cola Company, Craig Wilson of Costco and Anita Scholte op Reimer of Ahold Delhaize** offered their insights on the work that goes into the requirements and their impact on the certification industry.

Anita Scholte op Reimer began by answering what moderator Marie-Claude called ‘a question we rarely talk about publicly’: how are the benchmarking requirements created? She outlined the process by which the Stakeholders Advisory Forum considers new topics within the context of international standards, such as those written by CODEX, and addresses these topics in each subsequent version of the requirements. Through this process of continual improvement, GFSI remains relevant and recognisable around the world. ‘We see continuous growth in Europe, in North America, in Asia, everywhere,’ she said. ‘GFSI is known by everybody. It’s a brand in itself.’

Neil Marshal shared more information on the Stakeholders Advisory Forum that creates these requirements. Formerly known as the Benchmarking Working Group, the Forum consists of experts who are selected to represent the full spectrum of the community, with a chair from industry and a vice-chair from a CPO. With such a diversity of perspectives, Neil admitted, ‘it’s not always a consensus straight away, but we get there.’ That ‘hectic and strong debate,’ he said, leads to stronger requirements and an overall better approach.

To close the final panel, **Craig Wilson** and other panelists offered recent updates relating to the Stakeholders Advisory

Forum and the implementation of their latest version of the benchmarking requirements. The number of CPOs that adhere to the requirements has increased from 9 to 11, with 4 additional scope extensions, all of which will be reevaluated annually under the new Integrity Programme. The number of certifications has also increased; 2018 saw 137,000 completed, a 5% increase from 2017. Many companies worldwide rely on these certifications to ensure safe food, including Craig’s own Costco. ‘I’m just tickled to death that the system’s working as well as it is,’ he said.

After being so often mentioned over the course of the session, **Codex Alimentarius** had the last word with a message from the organisation’s **Secretary Tom Heilandt** and **Chairperson Guilherme da Costa**. Tom Heilandt sent a video from Rome inviting GFSI stakeholders to celebrate **World Food Safety Day on 7th June**, a day the United Nations General Assembly set aside to increase awareness of food safety. Though he called the GFSI Conference ‘the biggest food safety event of the year,’ he suggested that the new day of recognition ‘has the potential to be much, much bigger.’ Through his talk, he held an apple — a visual aid he reprised from his presentation at the GFSI Conference 2015 — because ‘props make us remember something that’s important.’

Taking a cue from Tom Heilandt, Véronique returned to the stage with her own apple in hand. ‘Indeed, this is a very important message, and I would like to give this apple to someone very important,’ she said, passing the apple baton-like to CODEX Chairperson Guilherme da Costa. In his closing talk, Guilherme reiterated Tom’s invitation to promote World Food Safety Day in the industry and beyond. ‘We should go beyond our normal environments of work,’ he insisted. ‘We should go to the media, we should go to the consumers, and we should take advantage of this day in order to strengthen the importance of food safety.’

KEY TAKEAWAYS:

- 1. The food industry must collaborate with decision makers in the public sector to create harmonised standards for safe food.
- 2. In order to represent all stakeholders involved in the global food chain, GFSI maintains diverse governance and membership.
- 3. The GFSI Conference 2019 is an opportunity for Europe to reclaim its status as a leader in the world of food safety.

ACTION POINTS:

- 1. Benefit from GFSI’s diverse governance; talk to a board member representing your own region or market.
- 2. Make the first World Food Safety Day on 7th June big. Participate with your peers in GFSI’s call for participation to share your commitments for food safety with the hashtags #WorldFoodSafetyDay and #GFSIbirthday on social media.

PLENARY 1

Food Safety Innovations & Solutions



The first plenary of the conference opened with what **Peter Freedman, Managing Director of The Consumer Goods Forum (CGF)** called 'the warm-up act' — an introduction to the organisation behind GFSI and its unique, leader-focused approach towards building consumer trust.

'Food safety exists in a larger world,' Peter began, clicking through slides that outlined the CGF's 10 initiatives to impact that world. In addition to GFSI, the CGF promotes efforts related to non-food safety, consumer health and sustainability, as well as fostering an openness between industry and the consumer that the CGF calls 'honesty.' 'We often use the word transparency; in the CGF, increasingly we want to use the word honesty, because that conjures up a relationship with consumers that we think is really important,' he explained.

Peter encouraged the delegates to consider the 'linkages' that connect the world of food safety to all of the concerns of the CGF, from reducing plastic waste to combating forced labour and beyond. Because all of these efforts are intertwined with safety, 'there are trade-offs to make,' he said. 'And sometimes the only people who can make those linkages and trade-offs is the CEO.' He noted that the CGF's focus on gaining the support and perspective of CEOs is especially evident at the GFSI Conference, where CEOs and other leaders regularly appear as both speakers and delegates.

To close, Peter invited the audience to connect with the CGF representatives present at the conference and consider themselves fellow participants in the CGF. 'You're part of a very big family at GFSI,' he said. 'You're part of an even bigger family in the Consumer Goods Forum.'

Peter's introduction worked well as a warm-up to **Emmanuel Faber, CEO of Danone**, whose longstanding enthusiasm for GFSI illustrates the success of the CGF's CEO-focused approach. Emmanuel framed his presentation around a retrospective of GFSI and the ways the world has changed around it.

'Close your eyes for one second and go back in time 20 years ago,' Emmanuel opened, conjuring the peak of the dot-com bubble — when investors were more interested in the possibilities of the capital-I Internet than in food businesses. Just before GFSI began in 2000, the Internet still held almost magical potential: 'This technology was supposed to bring us a standardised way of talking, of discussing, of agreeing around the world on key issues,' he recalled.

As GFSI's 20th anniversary approaches, the Initiative should be proud of its two decades of successes, Emmanuel said. 'And yet,' he acknowledged, 'you also know that the world that we felt was going to happen 20 years ago is not going to happen.' He listed ways that our internet-connected age has only become more fragmented, especially in regards to food: food and water are now political issues, and modes of eating informed by beliefs such as Chinese medicine and Ayurvedic practice are gaining credence. Emmanuel cautioned the audience not to overlook these so-called 'soft sciences': 'All of this is hopefully driving to a situation where there will be a more balanced diet for all of us, a more personalised diet for all of us,' he said.

Emmanuel also cautioned the audience against overlooking the growing consumer demand for locally-produced food, which he predicted would lead to a 'deglobalisation' of the

food chain. He pointed to the existing evidence for this impending change: large swaths of consumers have turned away from large-format retail and global brands, and prefer small-batch, local products over anything 'big and international.' 'And GFSI is big and international, my friend,' he said. 'So if we want to be relevant for the next 20 years, we need to change.'

In order to remain relevant, companies must shift their attitudes towards risk, urged Emmanuel, comparing the food industry to a 'very large body' that must strengthen its immune system. The industry can inoculate itself to risk by preparing for challenges 'that are calculated, that are shared, and communicated with trust,' he said. 'Good luck with that; I'll be part of it with you.'

Trust and communication remained at the forefront in the following presentation by **Professor Chris Elliott, Founder of the Institute for Global Food Security**. Chris arrested the audience's attention with a barrage of statistics that suggested a system in crisis: in the next 50 years, the world must produce more food than it has in the last 500, and within 15 years up to ⅔ of the population will be deficit in freshwater. 'I hope I've cheered you all up,' he said drily, as he moved into possible solutions for these crises.

Chris's next slide presented a concept that lies at the centre of his institute's work: **food integrity**, defined as the state in which 'all people, at all times, have access to food which is safe, authentic and nutritious. The systems used to produce the food are sustainable, ethical, respect the environment and protect the human rights of all workers.' This encompassing concept is based on the UN's definition of 'food security' with the addition of concerns like sustainability and ethics. 'I did send this definition to the United Nations,' said Chris. 'They haven't responded yet.'

Chris then outlined 7 principles that companies should consider as they work towards food integrity: food should be safe, nutritious, authentic, ethically-produced, sustainable, respectful of the planet and respectful of all the people who work in the food supply system. As he moved through these principles, he emphasised the intrinsic connections among them and the importance of communication in working towards all 7.

A dedicated educator, Chris expressed his faith in the power of education to foster global change. 'Let's actually tell children food safety is important,' he said. 'Let's get it into national curricula.' He also shared his enthusiasm for numerous technological solutions that help the industry work towards food integrity, from blockchain to drones that spray agrochemicals.

'The solution to the world's food problem is a good business plan,' he said in conclusion. 'Because it will be driven by innovation.'

Jean-Pierre Cravedi, Research Director of the France National Institute for Agriculture Research (INRA), took the stage next to share specific innovations that are driving change in the world of food safety. He explained how his own area of expertise — toxicology and the hazard characterisation of chemicals — are shifting towards revolutionary new methods that can keep pace with the changing industry.

'The first message I would like to give you is the fact that we are exposed to a huge number of different chemicals,' he began, highlighting his topic's relevance to everyone in the audience.



'We know some toxicological outcomes for these chemicals, but for many of them we know very few things, and for some nothing at all.'

Today, Jean-Pierre explained, most chemicals are tested using animal experiments, each of which requires between 2 to 3 million euros, 10 years and about 10,000 animal subjects. His slide illustrating the tests required for the hazard characterisation of pesticides included cartoons of rats, birds and fish that emphasised the animal cost of the traditional methods. 'This system doesn't work,' he declared.

A new system shows promise, however. In the past decade, researchers have been working to perfect a biological pathway-based approach that tests substances directly in human cells *in vitro*. This approach has the potential to offer a risk assessment certainty of over 90%, an exciting possibility when compared to the 60% certainty that is currently deemed acceptable.

Jean-Pierre presented this new hazard characterisation method as not only a promising option but a necessity. In a world that produces 2,000 new chemicals every year, toxicologists — like the rest of the food industry — must find ways to accelerate and adapt. The presentation ended with an open question to the audience: 'Why aren't these novel approaches widely and consistently used for regulatory decision making?'

Ikko Watanabe, Deputy Director of Japan's Ministry of Agriculture, Forestry and Fisheries (MAFF), offered a case study on one method of adapting regulatory decision making to novel innovations. 'MAFF is one of the most conservative organisations in Japan,' he admitted, before explaining how his organisation transcended its historical conservatism to meet the needs of food industry innovators.

'Our society in Japan hesitates to face uncertainties,' Ikko said, explaining this risk aversion as the product of an elder-dominated population. Even as the majority of Japanese society avoids risk, however, the country also produces some of the world's most cutting-edge innovations in food and beyond. Some of these innovations are so novel that no legal framework exists to regulate them — but, as Ikko asserted, 'no legal framework should not mean free from legal framework.'

In order to build this framework from the ground up, MAFF established a public-private partnership initiative called OpenLab. Under this programme, MAFF regulators team up with representatives from the private or academic sectors to propose new policies that are relevant to the changing food industry.

To illustrate the OpenLab process, Ikko described his own work with a group of inventors who dream of creating a 3D printer that can render edible sushi, perhaps on the International Space Station. The OpenLab team identified issue points relating to the existing legal framework, including food safety regulations, all to the end of supporting the innovators and facilitating investment in 3D food printing. 'Finally, astronauts can enjoy artificial sushi from Tokyo in space!' Ikko said.

Ikko closed with a line from OpenLab's mission statement, which could serve as inspiration for many GFSI stakeholders: 'We productively participate in policy-making for future generations' happiness and well-being,' he said. 'I hope for collaboration with all of you at GFSI.'

KEY TAKEAWAYS:

1. All actors in the global food chain must learn to 'zoom in' to a regional scale in order to adapt to the consumer demand for small and local products.
2. The solutions to the world's food system challenges will be driven by innovation.
3. A proactive approach to public-private collaboration will ensure a regulatory framework that meets the needs of the changing food system.

ACTION POINTS:

1. Take a page from OpenLab — reach out to a food innovator 'disrupting' your own market.
2. Leverage the CGF's initiatives to apply the 7 principles of food integrity to your supply chain: do you meet the standards?

PLENARY 2

Emerging & Established Challenges in Food Safety

The second plenary of the conference directly addressed the theme for 2019: **emerging challenges and the future of food safety**. Even when discussing the distant future and trends on the horizon, speakers representing a broad selection of perspectives continually returned to existing challenges and the importance of learning from the past.

Dirk Van de Put, CEO of Mondelez, who introduced the American multinational as 'the biggest snacking food company in the world', offered a leadership perspective on the most pressing food safety challenges facing the industry today. He insisted that executives at his level have the responsibility to stay informed on food safety concerns. 'The biggest fear of a CEO in food is that one day something will go wrong, real or imagined, that will damage the brand and then our business, and we try to make sure that that won't happen,' he said.

Dirk organised his most pressing concerns into three main categories: the ever-increasing complexity of the food chain, perceptions and conversations about science as it related to food, and a greater consumer demand for transparency. In a broad sense, he said, the solution to all of these challenges is greater collaboration and communication among all actors in the food supply chain. 'And that's why we at Mondelez are very active members of GFSI,' he said, 'because we think GFSI is helping us to do that.'

After outlining the main categories of challenges, Dirk delved into some of the specific issues that are affecting his company and others. 'We're from the US, so I couldn't talk without mentioning fake news,' he began, referring to the misinformation that social media and other venues can spread within minutes. The solution to this potential for defamation, he posited, is for companies to redouble their commitment to facts in a science-based discussion. 'Science has to be the basis of everything we touch in food safety, and it needs to be present in the conversations that we have with consumers,' he said.

Continuing the subject of consumer communication, Dirk urged the delegates to pay attention to their consumers' desires and their understanding of food safety, as well as their growing demand for locally-sourced products. 'They expect the same food safety from these companies as from the big multinationals, and I believe it's our joint responsibility to make sure that even those products are completely safe,' he said.

Dirk ended on the subject of food safety culture, a perennial area of concern at GFSI. 'Culture eats strategy for breakfast,' he said, quoting the managerial guru Peter Drucker. 'I think that all food producers must live and breathe food safety and ensure that it is 100% embedded in the way we work and think.'

Elke Anklam, Director of the European Commission's Joint Research Centre, joined next to explain how food safety is embedded in the way her own organisation works and thinks. She outlined the efforts that the European Commission has taken in the last 20 years to ensure food safety throughout its





member states, including the establishment of the European Food Safety Authority in 2002, the construction of reference laboratories and dedicated legislation to tackle issues like food fraud.

After recalling the past, Elke looked to the future by describing the Joint Research Centre's groundbreaking foresight study *Delivering on EU Food Safety and Nutrition in 2050 — Future challenges and policy preparedness*. Published in 2016, this study considers several scenarios that could impact the food system and posits policy solutions to these scenarios. 'We do not predict the future of the stakeholders,' she acknowledged, admitting that her organisation has no 'crystal ball' at their disposal. Instead, they 'gathered the intelligence of many people knowledgeable in many fields' to respond to a wide range of trends and possible outcomes.

In describing the scenarios that the study addresses, Elke noted their similarity to trends mentioned in previous conference sessions. 'The consumer at home may have this 3D printing device, and is starting to do personalised food products,' she said, referring to the 3D food printer project that Ikko Watanabe mentioned in the previous plenary. She also reiterated Emmanuel Faber and Dirk Van de Put's attention to the hyperlocalisation of the food chain, which may lead to the rise of agricultural innovations such as vertical farming and at-home aquaponic systems. 'We are not closing our eyes,' she said. 'We have to look to future challenges and adapt our systems to them.'

Elke closed by explaining some of the ways her organisation deals with existing challenges, such as food fraud, plastic waste and the much-reported issue of inconsistent quality standards across EU member states. As the 'in-house laboratory' of the European Commission, the Joint Research Centre has concerns that go well beyond food safety, but 'safer food and feed has been our bread and butter activity for a long time,' she said. She summarised the Centre's participation in these

activities with a series of relevant terms: 'it is harmonisation for member states, official control, guidance, methodology.'

Pascale Hébel, Director of the Consumer and Business Department at CRÉDOC, shared information her organisation has gathered on the consumer response to some of the trends and scenarios mentioned by previous speakers. Since its formation in 1953, CRÉDOC has collected increasingly broad statistics on consumers' lifestyles, perceptions and patterns related to consumption. Pascale used these statistics to present composite views of each living generation's attitudes towards food and food safety.

'People have more and more fears about food,' she began, referring to consumers in developed countries around the world. Different generations, however, have different fears: younger people consider environmental degradation a primary concern, but the environment is 'not a subject' for older people, who care primarily about the effect of food on health and longevity. Both generations are increasingly concerned with food safety, and 'more and more people think they can be sick when they eat,' Pascale said.

Pascale illustrated these shifting attitudes through the use of word clouds, graphical representations of key terms that appear when consumers discuss their beliefs around food. Terms that arise more often in these discussions appear larger in the clouds. Interestingly, the word clouds representing consumers' conceptions of 'good food' look remarkably similar across various developed countries, both 20 years ago and today.

'20 years ago, food of quality was food with taste,' Pascale said, pointing to word clouds where terms like 'flavour' and 'presentation' held prominence. The most recent surveys showed a shift from this attitude; today, consumers in countries as far apart as Germany and Japan are more likely to use words like 'organic', 'chemical-free', and 'natural' to describe good food. 'Organic food, it's the trend for all people,' she said.

Like previous speakers, Pascale closed by looking to the future. Based on current trends, she predicted that young people's concerns for environmental sustainability and animal welfare will continue to rise, leading to an increase in modes of consumption such as vegetarianism and veganism. Consumers will also demand food that contains ingredients they consider more beneficial for their health. She cautioned the delegates not to underestimate their consumers' drive to understand what they eat: 'They are on the social networks, they are connected, and they want to know the truth,' she said. 'If you want to have confidence with consumers, it is important to have transparency.'

The subsequent presentation by **David Khayat, Professor of Medicine and Founding President of France's National Institute for Cancer**, suggested a science-based approach to addressing consumers' demands for healthier food. 'The take-home message I want to deliver today is that food safety does not stop after chemical safety and infectious disease safety,' he said, noting that food is related to a large proportion of non-communicable disease cases, including 20% of all cancers.

'After about 43 years of fighting this disease, I know how much it is causing sadness and terrible consequences on our families, on our friends; in all our industries and enterprises,' he said. In the face of this enormous human cost, food producers, regulators and other stakeholders should consider ways to prevent cancer through diet and lifestyle — though he cautioned that 'there is no real anti-cancer diet.'

'What is important to understand is that anything can be harmful for your health,' he said, explaining the dose-response relationship between carcinogens and the risk of developing a cancer. In 2015, for example, the World Health Organisation defined red meat as a potential carcinogen. 'But it's not eating red meat that causes cancer. It's eating an excess of red meat,' he said, pointing to a graph that showed cancer cases rising in step with increased red meat consumption.

Instead of trying to develop the mythical anti-cancer diet, David suggested that the food industry and food regulators take a cue from the automobile industry. 'We know that driving is very dangerous,' he said. 'But we didn't say stop driving, or to the industry to stop producing cars.' Instead, industry developed seatbelts, airbags and anti-lock braking systems, and regulators began requiring their installation. In regard to food, 'We have to invest and focus more on information and education strategies and trust science and innovation,' he concluded.

In the final minutes of the session, the speakers returned to the stage for a moderated panel discussion that synthesised their diverse perspectives. They were joined by **Tobin Robinson, Head of the Scientific Committee and Emerging Risks Unit at EFSA**, who provided some background on one of the most important recent regulatory actions in food safety: the revision of the EU General Food Law in response to the Citizens' Initiative on Glyphosate.

The update, said Tobin, 'really goes back to what we've heard about from some of the other speakers today: questions of trust and transparency.' Among other changes, the updated law will require the proactive disclosure of all scientific studies and data related to risk assessment and the pre-registration of experiments that provide regulatory data.

Dirk Van de Put said he agreed with the push for greater transparency but wondered if the requirements would place a greater burden on small companies than on multinationals like Mondelēz. He also questioned whether this new source of information would reach consumers in a world inundated with social media and other stimuli. 'For a consumer to make up their minds and really understand what's going on, it gets very complicated,' he said.

Elke Anklam agreed that communicating the right information with consumers is the hardest part of the equation. She recalled consumer demands for oxymoronic products such as 'gene-free tomatoes' or 'chemical-free wine' that demonstrate a misunderstanding of food science concepts. 'I think we have to make the consumer understand what they are really talking about, what they really want,' she said. 'If you know things better, you can be a better consumer.'

As the conversation moved from transparency to subjects of sustainability such as plastics and food waste, the speakers agreed on one solution: collaboration among all stakeholders, with the consumer at the centre. 'We can't do it by ourselves,' said Dirk. 'I think regulators and governments need to be involved, and I think the consumer needs to play a role. It all starts with the consumer.'

KEY TAKEAWAYS:

1. In a world inundated with information, companies are responsible for providing their consumers with the facts they need to make informed decisions about food.
2. The emerging trends we see on the horizon will become the mainstream of the future.
3. Food safety does not end with chemical and infectious disease safety; companies should consider their products' impact on non-communicable disease.

ACTION POINTS:

1. Look into the future of your own company. What scenarios might affect you in 2050?
2. Find ways to share relevant information with your consumers to ensure transparency and trust.



PLENARY 3

Global Markets Programme in Action!

By providing a pathway towards GFSI-recognised certification, GFSI's Global Markets Programme allows small-to-medium businesses to join the worldwide journey towards safe food for all. Plenary 3 placed the spotlight on the growing businesses that leverage this programme and the buyers that support them, with a focus on the winners of the third annual Global Markets Awards.

Taking on the role of moderator, **Mike Robach** opened the plenary with a brief introduction to the Global Markets Programme, which consists of a free, open-source toolkit that translates GFSI's benchmarking requirements into step-by-step capacity building tool. The Global Markets Awards, which inducted its first winners in 2017, honours companies that take advantage of this valuable resource. 'We always try to recognise the developing world,' Mike noted; the committee therefore selects a winner from Africa, Asia and Latin America, respectively, with a fourth award set aside for a company from the conference host country. The eight previous winners have grown into a worldwide family of GFSI advocates. 'I'm very proud to see how these awards are growing and how our former winners are becoming ambassadors of GFSI in their countries and in their regions,' said Mike.

The audience heard inspiring testimonies from some of those ambassadors, starting with last year's winner from the Latin American region: Asociaciones Agroindustriales Serranas of Mexico. The producers of the GFSI WebSeries travelled to Serranas' coffee plantations and packhouses in the state of Veracruz to learn how the Global Markets Programme has fulfilled its promise to help build food safety capability. The resulting short film interspersed shots of colourful Mexican village life with Serranas' Global Markets success story: the company has had zero rejections since implementing the programme. 'The tool took us by the hand and helped us to set and achieve production objectives in an orderly manner and with high quality standards,' said Ruben Vicon Morales, the company's Food Safety Manager, who travelled to Tokyo last year to receive his award.

Two other winners from last year, Sunday Bamikole of Plantations Industries Ltd. in Nigeria and Kashif Elahi of Nuts and Legumes Co. in Pakistan, sent in their own video testimony

als that shared updates on their post-award activities. Despite the geographic distance between the two companies and the different spaces they occupy in the supply chain, Plantations Industries and Nuts and Legumes Co. gained similar benefits from participating in the Global Markets Programme.

Both Sunday and Kashif said that they received unprecedented amounts of press after the awards, which led to new connections with potential buyers and increased profits. The benefits went beyond their bottom line, though; the media attention gave them the platform to spread food safety awareness throughout their regions. The two companies' parallel stories demonstrate the universal applicability of the toolkit and the collaborative nature of food safety.

Before the announcement of the 2019 winners, speakers representing the buyers downstream of these companies explained how the Global Markets Programme helps them select suppliers and build capacity in their supply chain. First, Conference Committee Co-Chair **Pierre de Ginestel** — here speaking in his capacity as Quality Director at Auchan — explained how Auchan Ukraine uses the programme as an indispensable tool in its food safety arsenal.

Pierre described the process by which Auchan Ukraine introduced 10 fruit and vegetable suppliers to the Global Markets Programme with the goal of leading them towards full certification. 'The first step, and the major step, is to get the commitment of the suppliers,' he said. 'We had a long discussion between the suppliers and the buyers at the beginning.' Today, 5 of the 10 suppliers in the programme — all berry and apple producers — are certified under GlobalGAP, and the rest continue to work towards certification.

The Global Markets Programme is a 'natural win-win commitment' for buyers and suppliers, said Pierre, predicting that certification will soon become 'the threshold of the market.' He ended with an image of Snow White with an apple, in reference to the certified-safe apples that Auchan Ukraine is now able to provide; 'With the Global Markets Programme, I think that her story wouldn't be the same,' he said.

Luis Hernandez Juarez, Upstream Corporate Quality Manager at Nestlé Mexico, shared another buyer testimony on the broad applicability of the Global Markets Programme. The audience might have remembered Luis from the video about Asociaciones Agroindustriales Serranas — he made an appearance as the buyer who introduced Serranas to the Global Markets Programme. Serranas was only one of many suppliers that Nestlé Mexico has enrolled in the programme; 'We had a decision this year to have all of our supply chain suppliers ei-

ther certified or committed to the Global Markets Programme,' Luis said.

Luis explained the customised approach by which Nestlé Mexico offers capability-building support to its suppliers. 'We realised that we have very specific sectors in Mexico that require more help than others,' he said; green coffee producers, for example, tend to have more highly-developed food safety systems and training procedures, while cacao producers require more support. To offer this support, Nestlé used the Global Markets Programme to create a process that translated the programme's guidelines into specific milestones and deliverables, beginning with training and ending with third-party audits.

While implementing this customised process at numerous suppliers, Nestlé noticed an unexpected benefit to the programme. The multiple levels of training, planning and assessment offered 'a different way of putting all the stakeholders together,' Luis said. 'Having all the stakeholders participate on the same work is developing these systems in Mexico.'

The much-awaited Global Markets Awards Ceremony began with opening statements by **Michael Taylor, Chair of the Global Markets Awards Selection Committee** and committee member **Jean Kamanzi, former FAO Regional Food Safety and Quality Officer for Africa**. Jean explained the criteria by which the committee assessed their 26 applicants. In order to qualify, the applicants must be small-to-medium food or beverage companies that can show evidence of a developing food safety management system and third-party conformity assessment through the use of GFSI tools: the Global Markets Programme and accredited certification. Successful applicants presented a clear Global Markets Programme story that included evidence of a strengthened food safety culture and improved market access. With so many applications meeting these requirements, Jean stressed the difficulty of selecting the winners this year.

In the end, the committee decided to award two honorary mentions to applicants in the Latin America region, which represented 18 of the 26 applicants, in addition to the four awards. **Mitch Chait, CEO of Greenfence**, who sponsored the awards, joined Michael Taylor on stage to announce these four stand-out awardees.

Mitch took a moment to speak to 'the human side' of the Global Markets Programme and the often-overlooked part of the industry it supports. 'Many of you,

because you work with major brands and retailers globally, really don't get to see what goes on in deeper parts of the world, where people are waking up at the crack of dawn and going to sleep at the end of a hard day,' he said to the audience. 'It's a big deal to recognise those hard-working communities and people.'

The hard-working people recognised at this year's Global Markets Awards were **Golden Sugar Company from Nigeria, Baillon & CIE. from France, Alfa Argentina from Latin America** and **Ashfaq Brothers Eggs Traders from Pakistan** (who was not able to attend). Representatives from the three companies in attendance were invited to the stage to receive their medals and participate in a panel discussion about their Global Markets journeys.

The three companies — a sugar refinery, an industrial patisserie, and a raw materials supplier — applied the Global Markets Programme holistically, based on their needs and their location within the supply chain. Though they each cited different reasons for getting involved, they all shared similarly positive responses. Véronique from Golden Sugar Company noted that employees would apply their new food safety training in their home kitchens, thereby 'affecting the community at the same



time’ as it affected the company. Javier Torres from Alfa Argentina explained how his company learned from the mature food safety systems at their clients and even competitors. ‘Now I believe food safety is not a competitive issue, but collaborative,’ he said. All pointed out the incremental approach of the Global Markets Programme which helped them to breakdown their efforts to improve their food safety management systems into smaller objectives and achievements. They also emphasized on how the development of food safety training and competencies within the Global Markets Programme framework supported their

Bruno Herbout, who founded Baillon & CIE. to help revitalise the economy of his disadvantaged community, had a particularly interesting perspective on the value of certification for employee confidence and culture. ‘In our city, there are people who are literally living on the street, who we have helped to integrate into an active lifestyle,’ he said. Certification is ‘a badge of honour and pride’ for these employees, who can now ‘walk in the street and know they are people of value.’

Véronique Discours-Buhot closed the session with a message of thanks to the winners and all the small businesses involved in the Global Markets Programme. ‘You fuel us with your energy, and there is no better proof that what we do every day is not only important but useful,’ she said. ‘You are part of the GFSI community now.’

KEY TAKEAWAYS

- 1. Through the Global Markets Programme, small to medium enterprises, many in the developing world, provide the innovation and momentum that power the global food industry.
- 2. Efforts to build food safety capability in developing companies must be customised to the companies’ needs and their place in the supply chain.
- 3. Food safety is a non-competitive effort; clients, suppliers and even competitors can be valuable resources for collaboration and training.

ACTION STEPS

- 1. Facilitate conversation between all your stakeholders to build more collaborative food safety systems through the use of GFSI tools.
- 2. Keep an eye out for the next edition of the Global Markets Awards! Your company or someone in your supply chain may have what it takes to be a winner in 2020.

PLENARY 4
Learning Lessons with
New Technology

From the lunchtime Tech Talks to the technically-specific Special Sessions and Breakout Sessions, cutting-edge technologies are an overarching theme of the GFSI Conference. The fourth plenary used real-world case studies to illustrate the potential of oft-mentioned innovations like social media and Big Data to mitigate food safety incidents and crises.

Of course, incidents and crises are not synonymous, as Steve Hather, Director of the Recall Institute emphasised in his presentation. He defined a crisis as ‘an incident that has escalated to the point which has a significant negative impact on the reputation of the business and its brands. It’s long-term,’ he said. ‘Thankfully, it’s your choice what you do with it.’

Steve’s presentation embarked on an exploration of the mind of the consumer and the ways food safety incidents can morph within it. Long before the rise of social media, he reminded the delegates, mixed messages and misinformation played a role in escalating food safety incidents. In the case of the 1999 Coca-Cola Belgium incident, for example, consumers’ reports of nausea, cramps and other symptoms

were later determined to be caused by ‘mass sociogenic disorder’ rather than any food safety issue. This diagnosis, however, only came after the company recalled all products across Belgium and a quarter of France.

Corporate essentially resolved the wrong problem,’ Steve said. ‘They thought they were dealing with a quality problem. What’s been shown is that it was a perception problem.’ In the wake of contemporaneous events such as the Dioxin affair, a scandal involving PCB-contaminated animal feed that led to the resignation of the Belgian Ministers of Health and Agriculture, consumers had lost trust in the food system and were primed to expect another crisis. This case study demonstrates the fragility of consumer trust and its fluctuation with factors outside of companies’ control. Steve offered some advice for maintaining that trust in the face of incidents both real and imagined.

A more empathetic approach to messaging, giving equal weight to facts and emotion, could help companies avoid the ‘pitchforks and torches’ of moral outrage, Steve said. In addition, companies and authorities must collaborate on messaging to avoid contradiction, confusion and the consequent information void’ that ‘those with misinformation and speculation are more than happy to fill.’

An example of such a void occurred in the recent case of needle-spiked strawberries in Australia. Mixed messages from the strawberry growers’ association, the police and





the local Department of Health led to widespread panic. The growers' association blamed this panic on social media, but 'that couldn't be further from the truth,' Steve said. He identified social media as the most important venue for companies to relay clear messages to their consumers, and 'the only one you can control.'

Of course, some food safety crises escalate far beyond damaging mere brand reputation, as in the recent listeriosis outbreak in South Africa — the focus of the following presentation by **Jerome Combrisson, Global Microbiology Programme Manager at MGS Labs**. Jerome used the deadly crisis as a case study to demonstrate the applicability of whole genome sequencing to trace outbreaks to their source.

Jerome laid out the facts of the case like a detective: in the midst of a nationwide increase in listeriosis cases, nine five-year-old children became ill at a daycare facility in Sowento. Health care officials obtained samples of food served in the daycare canteen and found *Listeria monocytogenes* in polony, a ready-to-eat luncheon meat, made by two companies: Rainbow Chicken and Tiger Brands. If the bacterium had been

found in only one brand, the authorities may have been satisfied to link the outbreak to that company, but the double positive required more precise analysis through whole genome sequencing.

When subject to whole genome sequencing, the bacteria in the patients' stool samples proved to be nearly identical, confirming that they were sickened by the same source. Submitting isolates from the two kinds of polony to the same analysis showed that only one could have been that source: Tiger Brands. The Minister of Health released a statement linking the outbreak to Tiger Brands, the country's largest food company, whose stock price subsequently dropped by 7%.

Though he hesitated to suggest that whole genome sequencing could solve all food safety incidents, Jerome was optimistic that further developments in the field could make the technology more affordable and broadly applicable in the future. 'This new technology could be useful for us,' he said conservatively. 'It depends on the project.'

Howard Popoola, Vice President of Corporate Food Technology and Regulatory Compliance at the Kroger Company, offered a retailer's perspective on the logistics of dealing with government recalls and other food safety incidents. His case study was the recent E. coli outbreak linked to romaine lettuce in the United States, an incident that disproportionately affected Kroger, the country's largest supermarket chain. Two days before Thanksgiving 2018 — 'the biggest foodie holiday' in the United States, according to Howard — US FDA and CDC issued a nationwide advisory against romaine lettuce, without guidance as to the regions or suppliers affected. Howard called this event 'unprecedented'.

'It was total chaos,' said Howard, who did not leave his office until 3 am after the day of the advisory. His company had to destroy 1.8 million retail units associated with 284 SKUs, a combined sales loss of tens of millions of dollars. Trailers filled with romaine lettuce and products containing romaine sat in trailers in the yard of the headquarters for weeks while the company figured out what to do with it. In the wake of the incident, Howard and his team resolved to be more prepared for sweeping recalls and advisories in the future.

The lessons that Howard drew from the E. coli incident are common-sense solutions that help any company involved in providing safe food. 'Communication is the number one key,' he said, referring both to communication with consumers and communication with employees on the ground. To the former end, Kroger established a point person and support team through which all messages would channel through; to the latter, they gave branch owners the freedom to immediately pull affected products without considering billing or other financial questions. 'What we don't want to do is have consumers looking at romaine lettuce on the store shelves when an advisory has been issued for it,' he said.

Howard also had advice for the regulators in the audience, who he thought could learn from his company's inclusive approach to communication. 'If there's one thing that we've always talking about between the industry and regulators, it's that it's nice to work together,' he said. 'Let us work together.' He asked regulators to consider giving retailers more lead time before issuing recalls and advisories and to take a more collaborative approach to food safety investigations.

Julie Pearce, Director of Openness, Digital & Data at the UK FSA brought a regulator's voice to the conversation by sharing her own efforts to facilitate public-private collaboration. Her team is developing a programme called 'Strategic Surveillance' that pulls together data from a wide range of open-access sources in order to build models that predict any number of food safety concerns, from aflatoxin risk in figs to fraud in pork products. After building a model that applies to, say, Brazil nuts grown in Brazil, the team can use extrapolation to expand its scope to nuts grown in Bolivia, Peru and beyond. 'It's relatively inexpensive for how much money can be spent on these great big data things,' Julie said, citing the use of open data as the main reason for the method's low cost. 'I would certainly advocate going down this path if you are strapped for cash.'

True to the 'Openness' in her title, Julie is a passionate proponent of open data, especially data openly shared between the public and private sectors. The eye-catching models that her team builds don't only pique the interest of self-styled 'graph-lovers' like herself; they are also attracting key actors

from across the food industry. 'We ask people to come get involved, bring their data, and spend a couple of days playing around and seeing what they get out of it,' she said.

Though she saw potential in emerging technologies like blockchain, Julie identified strengthening data standards as a more pressing immediate concern. 'That's what we need to get right, and that's why we need to work with everybody in this room — all the regulators, all of industry — to get the right data standards so that we can actually share our data,' she said.

Julie asked the industry members in the audience to reach out to her and share the concerns they'd like to see addressed with analytic tools. 'What is their biggest worry? What is the thing that's keeping them awake at night? What are the things they've got in their heads that they think are true, but they've never been able to get the data to prove it?' Once they have the questions, Julie said, her team could turn around answers in a matter of months.

The session closed with a panel discussion in which all of the speakers agreed on the necessity of collaboration and communication among all of the sectors involved in food safety. Clearly-defined standards are also key in all fields, from data sharing to retailer-supplier contracts to standardised applications of whole genome sequencing. 'That's what an organisation like GFSI can do,' Julie said. 'Convene the conversation, do the collaboration, get everybody broadly in the room together working towards this direction.'

KEY TAKEAWAYS:

1. **Social media does not create crises; it can either escalate or diffuse them, depending on clarity of messaging.**
2. **Industry and regulation should work together to more efficiently prevent and mitigate food safety incidents.**

ACTION STEPS:

1. **Make your data available to public-sector actors who are working to understand and predict the world of food.**
2. **Establish a point person who can channel communications to and from consumers in the case of an emergency.**
3. **Test your food safety systems using simulated crisis scenarios. Are you prepared?**

PLENARY 5

Building Cohesive Food Safety Culture

Food safety culture had the last word at the GFSI Conference 2019, with a closing plenary dedicated to this crucial concept. Speakers used real-world examples to illustrate how food safety culture manifests around the globe, in settings as diverse as Danone manufacturing plants, McDonald's restaurants and the international outposts of Michelin-starred celebrity chef Alain Ducasse.

The session opened with an episode of the GFSI WebSeries featuring Sunday Bamikole, Food Safety Team Leader of Plantation Industries Ltd., who won last year's Global Markets Awards in the Africa region. 'Participating at the GFSI Conference has enhanced building a robust food safety culture,' Sunday said in the video, pointing to an increased commitment to monitoring food safety among all employees. He spoke of this culture in the same context as the technological interventions that the company added as they worked towards certification; both tools were key to the company's food safety journey.

However, culture has not always been considered key to food safety, as **Frank Yiannas, Deputy Commissioner of Food Policy Response at the US FDA**, reminded the audience. His presentation took delegates on a journey to the origins of the culture conversation, which intertwines behavioural science and food science in a way that was once seen as radical.

Frank offered a definition for culture borrowed from the social sciences: 'shared patterns of thought and behaviour that characterise a social group, which are learned through socialisation processes and persist through time.' In other words, he said, 'food safety is as much caught as it is taught.' No amount of training is a substitute for social norms and peer pressure.

While these ideas are now second nature to most food safety professionals, Frank remembered a time in which culture was a fringe concern at best. He recounted a story from the early 2000s, when he gave his first talk on food safety culture at a meeting of the International Association of Food Protection. After the talk, an audience member asked Frank why he had brought 'the soft stuff' to a conference focused on the hard sciences. 'This line came to me that day: It's the soft stuff that's the hard stuff,' he recalled.

Since that day, the world of food safety has seen several milestones that demonstrate an increasing interest in culture, including seminal publications by authors like Chris Griffith, dedicated efforts by governmental organisations including the UK FSA and the first GFSI Conference themed around the subject in 2011. Frank used these trends to extrapolate 'a new era of smarter food safety' that uses behavioural science in conjunction with emerging technologies and public-private collaboration. 'A new era of smarter food safety is not a tag-line or a slogan,' he asserted. 'It's people-led, FSMA-based and technology enabled.'

Craig Wilson, Vice President of QA & Food Safety at Costco, joined the plenary to explain one way that GFSI is helping the industry move into that new era of smarter food safety. As the GFSI Board Liaison for the Technical Working Group on Food Safety Culture, he shared insider knowledge about the multi-stakeholder efforts that went into preparing the group's recently-published reference document.

Craig came on stage with a copy of the document, which he briefly allowed moderator Chris Burns to hold, joking that he could 'feel the power' in its pages. That power, the result of 18 months of work from a carefully-selected group of industry experts, is the potential to help food industry professionals establish and maintain a culture of safety throughout their organisations. The working group also refined a definition of food safety culture to pertain specifically to the food industry and prepared an accompanying *aide-memoire* for practical daily reference.



'It's a great reference, and a great starting point, but it's only that,' Craig allowed. 'You need to be an active player.' He listed some ways that food industry professionals could take on that active role in their organisational culture, centering around the concept of 'influence.' 'We're all influencers,' he said, borrowing a term from the jargon of social media. 'Examples and peer pressure affect mindset within your group.'

Influence is important at every level of hierarchy, from the CEO to the line worker. 'If you don't have top-down support on food safety culture, guess what? You will never, ever have a food safety culture that's going to be effective,' Craig said. He stressed that all employees must be aware of their ability to influence food safety culture and outcomes, using the example of Costco poultry plants where workers are empowered to stop the line if they see something wrong. 'That pattern builds food safety culture, because now they feel responsible,' he said. 'With food safety culture, you're building responsibility.'



Subsequent speakers looked at specific case studies in which empowering employees led to stronger food safety culture. First, **Lydie de Meyer, Director of Quality Culture and Consumer Voice at Danone**, introduced iCare, an internal quality culture initiative that her company established in 2016. 'Of course, it's about food safety first,' she said. 'It's also about operational excellence.'

iCare is structured around four key drivers: fostering employee ownership, encouraging peer involvement in a continuous improvement approach, ensuring sincere and consistent messaging and promoting visible leadership commitment. That commitment goes beyond statements and press conferences, said Lydie; 'It's better to have the leaders demonstrate their commitment through their decisions and day to day behavior.'

Lydie left the audience with some tips to guide their own journeys towards cohesive food safety culture. First, she said, companies must build a purpose in line with their existing mission. Once the purpose has been established, a core group of people should frame and drive the culture initiative. As the initiative progresses, periodic assessments will allow the company to gauge the maturity level of the programme. 'Enjoy the journey!' she said.

The session's second case study came from **Cindy Jiang, Senior Director of Food and Packaging Safety at McDonald's**. As one of the world's largest fast food chains, her company hardly needed introduction, but Cindy offered to initiate any unfamiliar delegates after the session. 'Talk to me and I'll take you to our restaurant right on Nice's Promenade,' she said.

The presence of a McDonald's branch mere steps from the conference venue analogised the unique challenges the company faces: with over 36,000 restaurants, nearly 2 million employees and 68 million customers every day, McDonald's relies on a cohesive food safety culture to maintain its reputation for safe food around the world.

'It's about people,' Cindy said — all the tens of millions who step through McDonalds' doors every day. 'People have passion, but people can make mistakes.' The company's food safety culture strategy therefore centers around minimising the



mistakes by harnessing the passion. One of their passion-harnessing methods is to recognise outstanding efforts rather than merely scaring employees with crisis scenarios.

Cindy shared one such outstanding effort that occurred only weeks before the conference. After finding pieces of glass in a raw hamburger patty, a cook and manager at a branch in South Korea immediately stalled operations and contacted the national headquarters, who took control of the situation before anyone was harmed. 'As food safety professionals, we have to share those positive stories to empower people to do the right thing,' she said.

The session's final speaker shared stories of food safety culture in a different but fundamentally similar setting: the Michelin-starred restaurants of **Alain Ducasse, celebrity chef**. Like McDonald's, Alain's dozens-strong restaurant group must maintain consistency and cohesion in a variety of settings around the world. Together with **Christian Regouby, Executive Officer of the Collège Culinaire de France**, Alain introduced the deeply-ingrained culture that underpins all of his restaurants and other projects.

'In our complex, uncertain, Googled world, it's important and exciting to be able to see what there is to marvel at,' Alain said in French, after screening a trailer for a documentary about his travels, *The Quest of Alain Ducasse*. 'I've come to the conclusion that this can only be done with a commitment to what is essential: sharing and transmitting.' Alain mission to share knowledge manifests nowhere more clearly than in his Youth with a Future initiative, also featured in the film, which provides underprivileged young people in the Philippines with the food

safety and culinary training they need to succeed in the restaurant world.

Alain's purpose for appearing at the conference was to 'share and transmit' another initiative: the first World Summit on the Gastronomic Revolution. Like the GFSI Conference, said Christian, the summit will highlight 'all the players along the chain who are providing us with food.' The 5 articles that will define the conversation, which centre around the universal human rights to enjoy safe, healthy food, correspond equally well with the principles of GFSI. The 5th article, the right to conviviality and the pleasure of meals, pointed to the uniting potential of food. Sharing food, said Alain, can lead to 'pleasure and peace, which encourage learning about other people.'

'I follow the 5th with pleasure,' said Frédéric René, as he and his co-chair Pierre de Ginestel returned to the stage in their French-themed attire to bring the conference to a close. 'We also have to enjoy, laugh and relax.' To that end, the mood in the room was celebratory as Frédéric, Pierre and Véronique thanked everyone involved for another successful GFSI Conference. Frédéric and Pierre then ceremoniously gave the stage to Board Members Thomas Wiester, Carletta Ooton and Craig Wilson, who will take on their role as Conference Committee Co-Chairs for next year's event.

As Chair of the GFSI Board and a fellow member of the American contingent, Mike Robach invited the delegation to the GFSI Conference 2020 in Seattle. 'It's been a fantastic conference,' he said. 'Now let's go out and continue to produce safe food.'

KEY TAKEAWAYS:

- 1. In order to be effective, food safety culture must extend to every employee, from the CEO to the line worker.
- 2. No amount of training can replace the social norms and employee responsibility involved in a robust food safety culture.

ACTION STEPS:

- 1. Organise food safety events that will get your team excited about providing safe food.
- 2. Share positive food safety stories to inspire employees.
- 3. Promote visible food safety commitment at your level of management, and make an example of your own behaviour.
- 4. Plan ahead to be part of the next step in this global conversation at the next GFSI Conference in 2020.



DISCOVERY TOUR

The Discovery Tour offered delegates a day of exploration before the start of the conference. Participants got a behind-the-scenes look at the food safety practices of the local industry while savouring the French food, culture and scenery of the French Riviera. The tour showcased the best that there is to see in the heart of Nice, with a diverse programme for all of those interested in finding out about food safety management and operations from leaders in the industry. Visits ranged from new concepts, like an innovative grocery showcasing organic Italian products, to local, family-owned businesses, including the last olive oil mill in Nice.

GFSI VILLAGE

At the vibrant GFSI Village, delegates learned about new and innovative food safety solutions while mingling with the GFSI delegation. We call the conference's exhibition hall a village because it has become a community in its own right, with many familiar faces joined by a few local first-timers each year. While enjoying the attractions, delegates took the opportunity to make connections and do business with the diverse, friendly crowd.

GFSI BOARD MEETINGS

Leaders from major retail, manufacturing, primary production and food service operations who make up the GFSI Board of Directors met before the conference to discuss new challenges in the evolving food industry landscape. The Board welcomed valuable new additions from players in food service, ecommerce, traditional retail, primary production and manufacturing. Old and new members worked together on a volunteer basis to provide the strategic direction for GFSI in line with key industry needs.

G2G AND G2B MEETINGS

GFSI hosted the fourth edition of the Government to Government (G2G) and Government to Business (G2B) meetings in Nice. At this year's G2B meeting, the GFSI Board of Directors were joined by representatives from 38 different governmental agencies and 10 intergovernmental organisations, hailing from a total of 29 countries. The meetings were an opportunity to discuss third-party certification and emerging food safety issues while exploring how regulators and the private sector can advance food safety in the context of value chain management.

SPECIAL SESSIONS

The early birds among the attendees had the chance to catch a series of morning Special Sessions, where some of the leading lights in the industry discussed the hottest topics in food safety, technology and innovation. Our collaborators, including Eco-lab, Bureau Veritas, Diversey, DNV-GL, Greenfence, GSI, NSF, Rentokil Initial, SAI Global and SGS brought together the most relevant topics and speakers to equip GFSI 2019 delegates to tackle food safety challenges. Delegates came away with concrete solutions and the connections to make them happen.

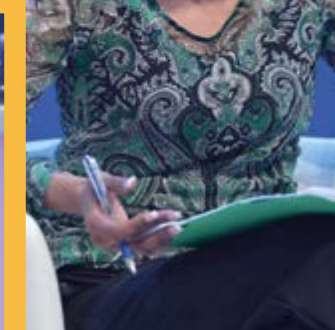
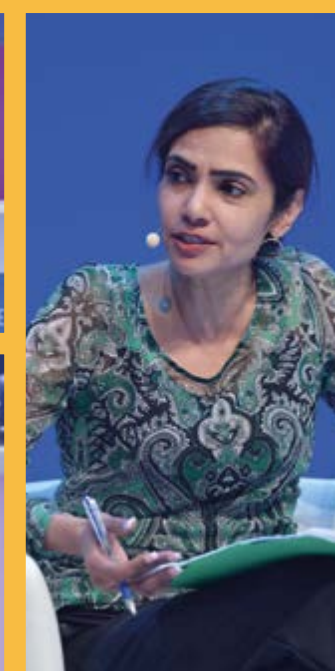
GFSI GLOBAL MARKETS AWARDS

The third annual Global Market Awards recognised four companies for excellence in advancing food safety by leveraging the Global Markets Programme. The companies — Patisserie Ballion (France), Alfa Argentina (Latin America), Golden Sugar Company (Africa) and Ashfaq Brothers Eggs (Asia) — stood out by showing evidence of robust food safety culture and telling a clear, inspiring story of their journey towards GFSI-recognised certification.

TECH TALKS

Tech Talks took place during networking breaks in the Presentation Theatre, the heart of the bustling GFSI Village. These short sessions offered a relaxed, informal setting for discussion of specific topics in food safety. As the name implies, each of these presentations had a focus on food safety technology, including Big Data, Internet of Things, food logistics, and mobile apps. Experts from across the food industry shared experiences and insights and showcased a new frontier of food safety science and technology.





BREAKOUT SESSIONS

This year's Breakout Sessions provided the chance for delegates to delve further into topics affecting the food industry. Attendees listened to real life case studies — success stories and lessons learned — and got a practical, hands on approach from those at the forefront of food safety.

The **Building Capacity in Developing Markets** session considered the harmful human and economic impacts of unsafe food and advance pathways that can lead developing markets towards the UN's food safety capacity targets, with due attention paid to every actor in the agri-food chain. Speakers with experience in developing markets around the world discussed holistic approaches to capacity building, such as nutrition programmes, policy interventions and technological innovations, that demonstrably improve food safety and thereby quality of life.

Designed as a companion to Plenary 2, the **Addressing Emerging Challenges** session showcased methods for addressing food safety challenges, with an emphasis on anticipating risks before they arise. Experienced professionals from academia, manufacturing, distribution and retail shared challenges that they have observed in their respective sectors and propose solutions to emerging risks. Delegates in attendance came away with the knowledge necessary to prevent and mitigate these risks in their own organisations.

The **Managing Threats to the Food Chain** session gave the floor to the actors working tirelessly to protect us from food system attacks, including security experts from the private and public sectors at the frontline of the burgeoning food defense perimeter known as 'biovigilance,' which has become more pressing as raw materials become scarcer and tariffs more plentiful. The weakly-equipped industrial food sector has been made more vulnerable by the push to digitise and automate without sufficient security measures, leading to economically-driven threats like counterfeiting, cyberattacks and outright robbery.

Thanks to innovative data technologies, we have a wealth of valuable information at our fingertips, ready to teach us how to better grow, process and sell safe food. **The Future of Food Safety is Data Management** session used real-life, practical examples to illustrate how Big Data is currently applied in the context of food safety, with suggestions for future growth. Speakers examined the existing tools and approaches and demonstrated how these capabilities are helping companies improve consumer engagement, supply chain security and food quality.

In today's globally intertwined food supply chain, collaboration between the public and private sectors and among governments is imperative; only uninterrupted, harmonised communication can guarantee safe food for consumers every-

where. The session titled **How Third-Party Certification Supports Trade Harmonisation** shared insights on the potential for third-party food safety certification to enhance trade and supplement national regulatory frameworks. The panelists, who included international regulatory leaders, described regional and global initiatives between the public and private sectors that apply third-party certification as a vehicle for trade harmonisation.

Among all the scientific fields currently being disrupted by technological breakthroughs, none is changing more quickly than the topic of the session titled **The Future of Microbiology**. Developments in microbiology will provide new tools, concepts and ways of working to food safety risk assessors, but will also require laboratories, competencies and industrial practices to change accordingly. The session highlighted emerging methodological approaches in food safety microbiology, including new generation sequencing technology and modelling, and possible concerns these methods may raise. Perspectives from stakeholders outside of academia illustrated the wide-ranging importance of these technical developments.

After a series of high-profile incidents, the world is paying closer attention to allergen management in the food industry than ever before. In the session titled **Creative Solutions for Allergen Management**, a diverse roster of speakers discussed their approaches to allergen management, with a focus on practical

methods for assessing risk, detecting allergen contamination and informing the allergic consumer. From a personalised mobile app for supermarkets to thoughtful ingredient labelling for food service providers, stakeholders are finding creative ways to keep their consumers safe.

The ways that customers buy and consume their food are becoming as diverse as the ways they 'consume' their information, and the entire food chain is adapting to the overarching desire is to get whatever, whenever and wherever. **The Changing Face of Retail & Food Service** explored the evolving faces of food service and retail, including new channels like B2B and e-commerce, and the food safety challenges that arise in the wake of these changes. By adapting regulation to the dynamism of modern food service and retail, mapping the supply chain with traceability solutions and — above all — better understanding the consumer, we can ensure more targeted risk communication and mitigation.

The breakout session titled **The Finger on the Pulse of Certification: How to Drive Growth** allowed GFSI board members and stakeholders to take stock of the global status of food safety certification. Members of the board discussed the accelerating growth of certification with representatives from regulatory agencies and industry. Delegates heard how different stakeholders perceive the future of certification, with suggestions to reduce inefficiencies and accelerate growth.

PHOTO GALLERY





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Learn more at Diversey's Special Session at the 2019 GFSI Conference:
"Going Digital: How Big Data Improves Food Safety"

Wednesday, February 27, at 8.15 am
Nice, France



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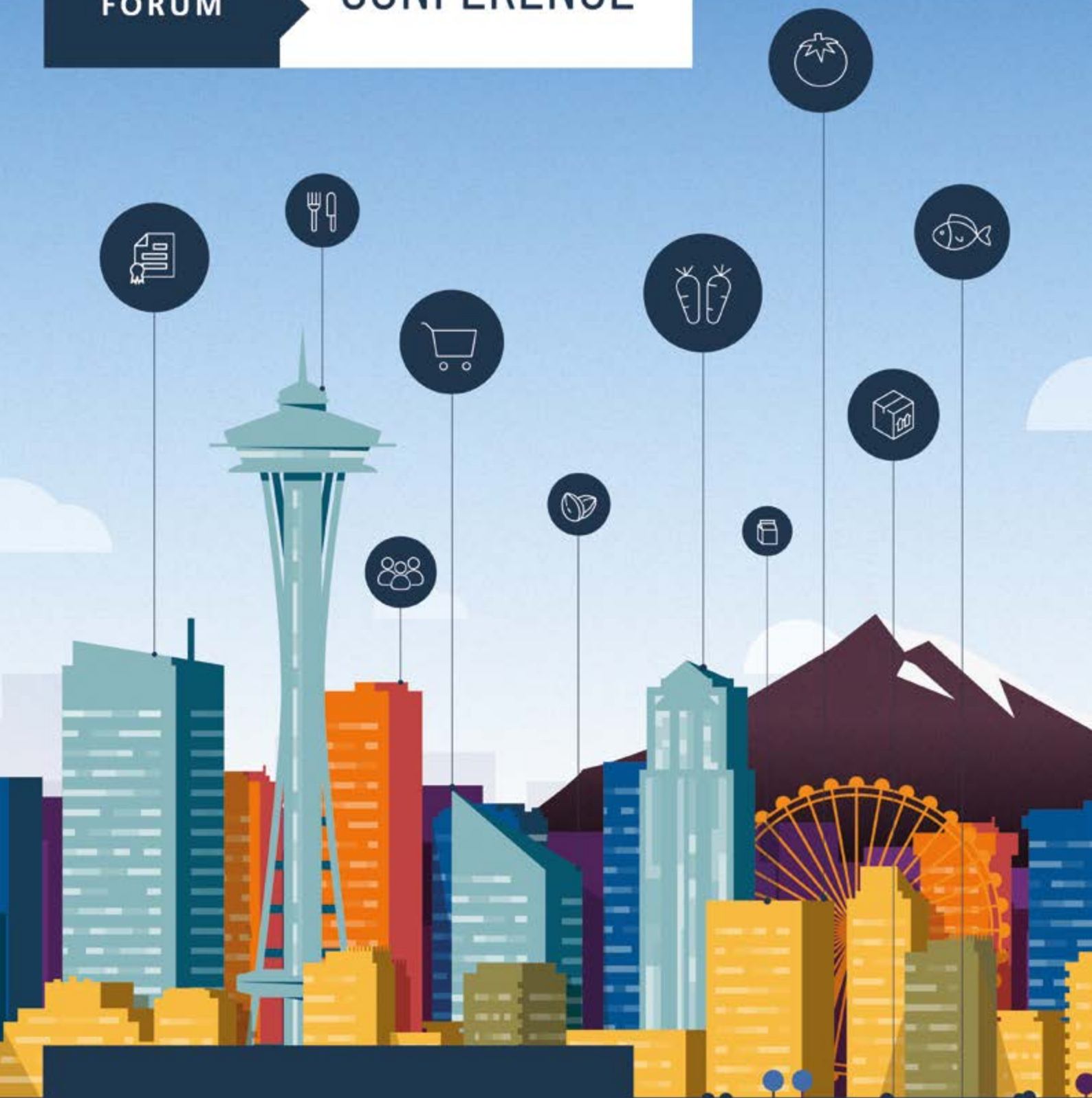
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