

A Safer Way Forward: The Critical Importance of Food Safety



Food safety is not just an option but a critical necessity in the food service industry. Not only is it an essential component of nutrition and food security, it contributes directly to people's health and wellbeing, by preventing and reducing the burden of diseases associated with food. In the highly competitive and fast-paced environment of the food service sector, one fundamental element supersedes all others food safety. Guaranteeing the safety of the food served to customers is not just a legal and regulatory requirement; it is an ethical obligation and a key factor in determining the success of a food service business.





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Introduction

Food safety: literally the difference between life and death

Food safety is a significant issue worldwide despite technological advancements, local policies, and investments in recent years. Researchers, health managers, organisations and government entities are seeking strategies to reduce the risks and consequences of foodborne illness (FBI).

- 1 600 000 people get sick due to unsafe food in one day, on average¹
- 340 Children under 5 years of age die due to preventable foodborne diseases, on average, every day²
- Around 200 different diseases are caused by unsafe food, ranging from diarrhoea to cancers³

In addition to health issues, food safety hazards result in severe economic losses due to many aspects such employee absenteeism, lack of income due to customers losing faith in the business and the cost of healthcare required to treat these illnesses.

The economic impact of food safety is equally significant. The 2019 World Bank report on the economic burden of the foodborne diseases indicated that the total productivity loss associated with foodborne disease in low- and middle-income countries was estimated at US\$ 95.2 billion per year, and the annual cost of treating foodborne illnesses is estimated at US\$ 15 billion⁴.

The cleaning and hygiene industry plays a major role in providing the resources, innovation, expertise, technology, and strategies to implement rigorous standards of hygiene, cleanliness, and safety in the food service industry.

Effective cleaning and sanitation are essential prerequisites for food safety. Sanitation maintains or restores a state of cleanliness and promotes hygiene for the prevention of foodborne illness. Without appropriate cleaning, effective disinfection can be difficult or impossible to achieve.

In this whitepaper we're going to investigate how the cleaning and hygiene industry is embracing exciting new trends such as innovative enhanced cleaning regimes,

⁴ Food safety (who.int)



¹ World Food Safety Day 2023 (who.int)

² Food safety (who.int)

³ Food safety (who.int)

automation, robotics, and AI to boost food safety standards in the food service industry⁵.

Food safety risks in the food service industry

The food service industry is a high-risk environment for foodborne illness. One of the most common causes of food poisoning is a result of improper cleaning and sanitation practices.

The food safety risks associated with cleaning in the food service industry include: cross-contamination, chemical contamination, and physical contamination, and biological contamination. Bacteria and viruses are typically the two biggest causes of biological contamination and can result in some of the most common types of food poisoning including salmonella, E. coli, listeria, and Norovirus. Thoroughly washing your hands and sanitising the food handling equipment are two of the best ways to prevent against bacterial contamination⁶.

One of the most common causes of food poisoning is a result of improper cleaning and sanitation practices.

It's a team effort: A global holistic focus on food safety during Food Safety Awareness Month

International Food Safety Awareness Month is observed in September⁷. This month-long awareness campaign serves as a key initiative to highlight the significance and necessity of food safety in our daily lives. The campaign aims to educate individuals, businesses, and communities about the best practices for handling, storing, and preparing food to prevent foodborne illnesses and promote a healthier society.

During Food Safety Awareness Month, various organisations, government bodies, and industry leaders join forces to raise awareness and provide valuable resources that empower individuals and businesses to prioritise food safety.



⁵ Improving food safety practices in the foodservice industry - ScienceDirect

⁶ What is Food Contamination? (foodsafety.com.au).

⁷ World Food Safety Day 2023 (who.int)



For the food service industry, adhering to food safety protocols is essential for maintaining public trust and ensuring customer wellbeing and satisfaction. Food Safety Awareness Month offers an opportunity for businesses to review their existing practices and implement more robust cleaning, hygiene, and sanitation systems to safeguard against potential risks.

Sink or swim: Adjusting to the brave new food service world after COVID-19

The pandemic has changed how we work and how we live our lives. Many of these changes will have long-term implications. The COVID-19 pandemic brought unprecedented changes and challenges to industries worldwide, including the food service sector.

The most noticeable changes in the food industry include a heightened awareness of the importance of cleanliness, hygiene, and sanitation within the commercial food environment.

There has also been an explosive increase in home meal replacement, online orders, meal-kit

consumption, take-out, and drive-through. The adoption of technology, including robots and artificial intelligence in the realm of hygiene and cleaning, also saw a significant uptick during and after the pandemic8.

These so called "hands-off" strategies may become less significant if food service businesses continue to ramp up their focus on cleaning and hygiene - as this also promotes consumer confidence.

Businesses in every sector, including food service, will need to adopt new strategies and technologies, and embrace new ways of working if they are to successfully adapt to these new realities.

Enhanced safety protocols

The pandemic necessitated the implementation of stringent health and safety protocols to protect customers and employees9.

The pandemic has changed how we work and how we live our lives. Many of these changes will have long-term implications.

⁸ Food service industry in the era of COVID-19: trends and research implications - PMC (nih.gov)

⁹ Cleaning changed during the pandemic, and it may not change back (acs.org)



Restaurants and food service establishments relied on frequent cleaning and sanitisation practices, mandatory mask-wearing, social distancing guidelines, and increased employee training. These measures played a crucial role in building trust and ensuring the safety of customers, staff, and the wider community¹⁰.

Changing consumer behaviour

The pandemic dramatically transformed consumer behaviour and preferences. Fear and concerns over health and safety prompted consumers to reduce dine-in visits and increase their reliance on delivery, takeaway, and drive-through options¹¹. As a result, restaurants had to quickly adapt by enhancing their online presence, investing in contactless technologies, and ramping up their focus on cleaning, hygiene and sanitation to reassure customers they were prepared for this new "hyper" vigilant approach¹².

Cutting costs without cutting corners: Managing inflationary pressures in the food service industry

Let's face it - everyone is feeling the economic crunch! Between the lasting effects

of the pandemic, geopolitical turbulence, environmental factors such as poor global harvests, rising energy costs, and avian flu - the food and beverage industry is facing deeply concerning challenges with regards to inflationary pressure.

These added pressures can significantly impact the food service industry, driving up costs and posing challenges for businesses while trying to maintain profitability. This means food service businesses need to find solutions to ensuring cost efficiency without compromising on food safety to ensure the sustainability of their operations¹³.

Rising costs and margin squeeze

Inflation affects the food service industry through increased expenses on raw materials, energy, labour, and transportation. These escalating costs, often outpacing revenue growth, create a margin squeeze for businesses. Therefore, finding ways to manage expenses while maintaining food safety standards becomes imperative.

Efficient inventory management

Effective inventory management is essential in minimising waste, controlling costs, and optimising resources. Implementing robust inventory management systems can help streamline procurement processes, reduce

¹⁰ Cleaning programmes and coronavirus control - lessons learnt (newfoodmagazine.com)

¹¹ The COVID-19 consumer research | Food Standards Agency

Coronavirus will have lasting impact on restaurant industry | Food Safety News

³ Food safety under pressure from rising costs and labour shortages (foodmanufacture.co.uk)

excess inventory, and prevent spoilage. This also encompasses the efficient management of cleaning and hygiene supplies. Employing technology-driven solutions such as demand forecasting, inventory tracking, and automated replenishment can ensure efficiency and cost savings.

Automation for improved efficiency

Automated dosing and intelligent cleaning machines are becoming more and more popular in the food service industry. Not only are these machines capable of delivering accurate doses of cleaning detergents for dish washing and linen care and more – they are cost efficient and contribute to sustainability through conservation of resources such as energy and water. Automated machines and smart technology allow food service businesses to focus on their core priorities, while having peace of mind that their cleaning regimes are optimised and their staff can be deployed on more pressing and sophisticated tasks.

Process optimisation and waste reduction

Identifying and eliminating inefficiencies in kitchen operations can contribute significantly to cost reduction. Streamlining workflows, strategic menu planning, optimising portion control, and prioritising batch cooking can minimise food waste and maximise profitability. Moreover, implementing composting and recycling programs can reduce waste disposal costs while demonstrating a commitment to sustainability.



Food safety scandals which rocked the food service industry

Neglecting food safety comes at a considerable cost! The food service industry plays a critical role in providing safe and hygienic meals to consumers.

Recent scandals have shed light on the consequences of neglecting cleaning, hygiene, sanitation, and food safety practices. These incidents emphasise the urgent need to prioritise these essential aspects of operations.

Here are some of the most common causes of food safety breaches:

Contaminated ingredient outbreaks

Contaminated ingredients, such as produce or meats, can lead to widespread foodborne illness outbreaks. These incidents highlight lapses in supplier screening and quality control. By failing to prioritise rigorous checks and verification processes, businesses put their customers at risk and suffered reputational damage.

Poor hygiene practices

Instances of poor hygiene practices, such as improper handwashing, inadequate cleaning of equipment, and unsanitary conditions, have unfortunately occurred in various food service establishments. This highlights the necessity of implementing comprehensive hygiene protocols, training employees on proper sanitation procedures, and conducting regular audits to ensure compliance.

Cross-contamination mishaps

Cross-contamination cases highlight the risks associated with inadequate separation of raw and cooked foods, allergens, and different food categories. In these incidents, businesses disregarded essential safety protocols, leading to customer allergies or illnesses. Implementing strict segregation procedures, dedicated equipment, and clear labelling protocols can reduce the likelihood of such incidents occurring.

Neglecting these critical aspects not only puts the health and safety of consumers at risk but also leads to significant reputational and financial repercussions for businesses. By implementing robust training programs, diligently monitoring compliance, sourcing

quality ingredients, and maintaining strict hygiene protocols, the industry can rebuild trust, protect public health, and ensure a safe and enjoyable dining experience for all.

Examples of food poisoning outbreaks linked to restaurants in the UK include:

- In the UK a Salmonella outbreak in 2020-2021 associated with frozen raw breaded chicken products sold at various supermarkets resulted in 480 cases, 212 hospitalisations and one death. ¹⁴
- A Campylobacter outbreak in 2014-2015 associated with chicken liver parfait served at various catering venues resulted in 443 cases and 36 hospitalisations. 15
- An E.coli O157 outbreak in 2009 associated with raw leeks and potatoes served at a restaurant chain resulted in 250 cases and 55 hospitalisations. 16

Challenges

Back to basics: The fundamentals of food safety

Food safety is of paramount importance in the food service industry. It ensures that the food prepared and served to customers is safe, wholesome, and free from any potential hazards that can cause foodborne illnesses.



A Campylobacter outbreak in 2014-2015 associated with chicken liver parfait served at various catering venues resulted in 443 cases and 36 hospitalisations.

Protecting consumer health, safeguarding reputation, meeting regulatory requirements, mitigating legal risks, and differentiating in a highly competitive landscape are all compelling reasons to prioritise food safety. ¹⁷

By making food safety a core value and implementing rigorous standards, businesses in the food service industry can ensure the well-being of their customers, maintain compliance, build trust, and thrive in an industry that relies on quality, reliability, and the highest standards of food safety.

"If you want your customers to continue coming back again and again then you need them to trust what they're buying from you; if they do, then their demand will increase which brings them back around again!" 18

Knowledge of microorganisms and foodborne illnesses

Understanding microorganisms, their growth conditions, and the risks they pose to food safety is vital for professionals in the food service industry. Knowledge about common pathogens, such as Salmonella, Escherichia coli (E. coli), Campylobacter, Listeria and the foodborne illnesses they can cause is essential

¹⁴ Deadly salmonella outbreak in UK linked to chicken products | Health | The Guardian

¹⁵ Controlling campylobacter during the manufacture of chicken liver pâté | Food Standards Agency

¹⁶ A large Great Britain-wide outbreak of STEC O157 phage type 8 linked to handling of raw leeks and potatoes - PMC (nih.gov)

¹⁷ Improving food safety practices in the foodservice industry - ScienceDirect

¹⁸ The Importance of Food Safety in the Foodservice Industry (pentagonfoodgroup.co.uk)

to prevent contamination and minimise the risk of outbreaks.

Personal hygiene practices

Maintaining strict personal hygiene practices is fundamental to food safety. Food service professionals should be well-versed in proper handwashing techniques, wearing appropriate protective clothing (PPE), and handling food with clean hands to prevent cross-contamination. Regular training and reinforcement of personal hygiene protocols are necessary to ensure compliance.

Safe food handling and storage

Thorough understanding of safe food handling and storage practices is essential for maintaining food safety. Professionals should be knowledgeable about safe temperature control, including monitoring and recording the temperature of stored and prepared foods. They should also understand the principles of FIFO (first in, first out) rotation to minimise the risk of food spoilage and ensure the use of fresh ingredients.

Cleaning and sanitisation procedures

Comprehensive knowledge of cleaning and sanitisation procedures is vital for maintaining a hygienic environment. Professionals should be trained on appropriate cleaning methods, proper use of sanitisers and disinfectants, and regular cleaning schedules to prevent contamination. Knowledge of food contact surfaces and equipment that require special attention is critical to prevent crosscontamination.

Poor cleaning practices in restrooms

Maintaining clean and hygienic restrooms is essential to uphold the overall cleanliness and reputation of the establishment. Poor cleaning practices, such as infrequent cleaning, inadequate sanitisation, or insufficient supplies of soap and hand towels, can increase the risk of cross-contamination and the spread of harmful bacteria. Implementing a robust

Maintaining strict personal hygiene practices is fundamental to food safety.



cleaning schedule, using effective sanitisers on high-touch surfaces, regularly monitoring and replenishing restroom supplies, and training staff on proper cleaning protocols can help mitigate these risks.

Protecting consumer health

The primary reason food safety is critical is simple yet profound - it is directly linked to the health and well-being of consumers. Foodborne illnesses, caused by contaminated food, can lead to severe health consequences, including nausea, diarrhoea, food poisoning, allergies, and sometimes even death. By prioritising food safety, businesses in the food service industry demonstrate their commitment to the health and safety of their customers.

Mitigating legal and financial risks

Food safety violations not only have a detrimental impact on consumer health but can also result in legal consequences. Regulatory agencies closely monitor food service establishments and enforce stringent standards to maintain public health. Noncompliance with food safety regulations can lead to fines, closures, loss of licenses, and damage to reputation. By adhering to food safety standards, businesses can mitigate legal and financial risks, ensuring compliance and preserving their long-term sustainability.

Safeguarding reputation and customer trust

In an era of digital connectivity and social media, news spreads faster than ever before. One food safety incident can quickly go viral, tarnishing the reputation of a food service



establishment and eroding consumer trust. Consumers are increasingly concerned about the safety and quality of the food they consume. By prioritising food safety, businesses demonstrate their commitment to providing safe and trustworthy dining experiences, thereby enhancing their reputation, fostering customer loyalty, and attracting new patrons.

Meeting regulatory requirements

The food service industry operates under strict regulations established by local, national, and international authorities. These regulations outline specific standards for cleanliness, hygiene, storage, preparation, and handling of food. Adhering to these regulations is not just a legal obligation; it is mandatory for operating a food service establishment. By maintaining compliance, businesses ensure they meet the necessary standards to protect consumer health and wellbeing.

Differentiating in a competitive landscape

In a crowded market, food safety can be a key differentiator for businesses in the food service industry. Consumers are increasingly seeking establishments that put their health and safety first. By implementing robust food safety practices, businesses can set themselves apart from their competitors, attract discerning customers, and build a loyal customer base.

Common cleaning and hygiene challenges in food service environments

Time is of the essence during food service hours. Restaurant kitchens need to be as prepared as possible — even over-prepared — on a daily basis. When workflow, hygiene and efficiency are all in sync, staff won't have to think twice about maintaining high standards of hygiene.¹⁹

Maintaining cleanliness and hygiene is crucial in food service environments such as catering companies, restaurant chains, and industrial kitchens. These settings present unique challenges due to high-volume operations and the sheer diversity of the tasks involved. To ensure food safety and customer satisfaction, it is essential to address common cleaning and hygiene challenges.

High volume and fast-paced operations Food service environments often operate at a fast pace, serving a high volume of customers. This can make it challenging to

In an era of digital connectivity and social media, news spreads faster than ever before.

¹⁹ Food Hygiene - Always Be Prepared - ECJ (europeancleaningjournal.com)

allocate sufficient time for thorough cleaning. To overcome this challenge, it's imperative to establish well-structured cleaning schedules that allow for regular maintenance during non-peak hours. Allocate resources specifically for cleaning duties and consider implementing additional cleaning shifts to ensure comprehensive and timely cleaning

Cleaning in busy kitchen areas

In a bustling kitchen, keeping surfaces clean and free from contamination can be tricky. Spills, splatters, and debris can rapidly accumulate on countertops, floors, and cooking equipment. Kitchens can address this challenge by implementing "clean-as-you-go" practices where kitchen staff clean up spills immediately, wipe down surfaces after each use, and regularly sweep and mop kitchen floors. Regularly scheduled deep cleaning sessions can also help maintain a sanitised environment. ²⁰

Proper handling of food contact surfaces

Food contact surfaces, including cutting boards, utensils, and prep surfaces, must be kept clean to prevent cross-contamination. However, with a wide variety of ingredients and cooking processes, ensuring proper handling of these surfaces can be challenging. Colourcoded cutting boards and utensils can be implemented to minimise cross-contamination between different food types. Clearly defined standard operating procedures should be used for cleaning and sanitising these surfaces regularly, ensuring compliance with local health codes.

Maintaining hygiene in dining areas

Dining areas in food service establishments can be busy and prone to spills and messes. Effective strategies for maintaining hygiene in these areas include frequent table bussing, prompt cleaning of spills, regular sanitisation of high-touch surfaces such as chairs, menus, and condiment containers, and providing accessible

Food service environments often operate at a fast pace, serving a high volume of customers.



hand sanitising stations for customers and employees. Proper training and ongoing monitoring of staff can help ensure consistent adherence to these hygiene practices.

Ensuring equipment is clean and well maintained

Equipment used in food service environments, such as ovens, grills, and fryers, require regular cleaning and maintenance to prevent the buildup of grease, food particles, and harmful bacteria. A maintenance schedule can be created for cleaning and deep-cleaning equipment and follow manufacturer guidelines for proper cleaning techniques. Staff can be trained on equipment-specific cleaning procedures and encouraged to timeously report equipment malfunctions or issues that may impact hygiene.

Compliance with health and safety regulations

Food service establishments must adhere to health and safety regulations to maintain cleanliness and hygiene standards. The challenge lies in staying updated with changing regulations and ensuring compliance across multiple locations or facilities. A robust internal training program should be established to educate employees on regulations and regular

²⁰ Food Safety Challenges in Foodservice Environments | 2021-06-03 (food-safety.com)

audits need to be conducted to identify areas of non-compliance. It's also important to collaborate with local health departments and industry organisations to stay informed about new regulations and industry best practices.

The long arm of the law: food safety compliance and regulation

Nothing can shut a food service down faster than one complaint from a customer about food safety to health inspectors!

Compliance with regulations is paramount in the food service industry, to ensure the safety and wellbeing of consumers and to maintain legality and integrity. Whether it's catering companies, restaurant chains, or industrial kitchens, understanding and adhering to relevant regulations is essential. ²¹

Failure to comply with these regulations can result in businesses incurring hefty fines or being forced to close their doors. Reputational damage is incredibly damaging for any business in the hospitality industry – news travels fast and merely one or two negative posts about food safety on social media these days can spell instant disaster for any business in the food service industry.

Ensuring food safety

Food safety regulations are the cornerstone of the food service industry. These regulations focus on preventing foodborne illnesses by addressing aspects such as proper handling, storage, cooking temperatures, and hygiene practices. Compliance with food safety standards, such as Hazard Analysis and Critical Control Points (HACCP) or equivalent protocols, helps minimise risks and ensures the safety of consumers.

Health and sanitation standards

Maintaining high standards of cleanliness and sanitation is critical in catering companies, restaurant chains, and industrial kitchens. Compliance with hygiene regulations involves regular inspections, proper cleaning and sanitation protocols, pest control measures, and waste management practices. Training

Compliance with regulations is paramount in the food service industry, to ensure the safety and wellbeing of consumers and to maintain legality and integrity.

employees, implementing monitoring systems, and maintaining comprehensive records support compliance in this area.

Here are some key compliance and regulations pertaining to cleaning and hygiene in the food service industry:

Food Safety Modernization Act (FSMA)

The USA's FSMA, enacted by the Food and Drug Administration (FDA), is a comprehensive law aimed at preventing foodborne illnesses. It includes regulations on cleaning and sanitation practices to maintain a safe environment. The law emphasises the implementation of risk-based preventive control systems, including proper cleaning and hygiene protocols, to prevent contamination and ensure food safety.

Disinfection products

All disinfection products used in the food industry in the UK should meet the BS EN standards. Check the product labels for either of these codes: BS EN 1276 or BS EN 13697.²²

Hazard Analysis and Critical Control Points (HACCP)

HACCP is a globally recognised system for food safety management. It provides a systematic approach to identify and control hazards in food production processes, including cleaning and hygiene practices. HACCP principles require businesses to develop and implement specific protocols for cleaning and sanitation to prevent food contamination and ensure consumer safety.

²¹ Guidance platform (europa.eu)

Good Manufacturing Practices (GMP)

A good manufacturing practice (GMP) is any practice regarding the conditions and measures necessary to ensure the safety and suitability of food at all stages of the food chain.²³ GMP regulations establish guidelines for manufacturers and processors to ensure safe and consistent production of food products. GMP includes requirements for cleanliness, personal hygiene, and sanitation practices. It encompasses proper cleaning and maintenance of equipment, adequate handwashing facilities, and training programs for employees regarding hygiene practices.

The Codex Alimentarius, or "Food Code"

This is a collection of standards, guidelines and codes of practice adopted by the Codex Alimentarius Commission. It provides guidance for retail food establishments' operations, including cleaning and sanitising procedures. The Commission, also known as CAC, is the central part of the Joint FAO/WHO Food Standards Programme and was established by FAO and WHO to protect consumer health and promote fair practices in food trade. It held its first meeting in 1963. ²⁴

Occupational Safety and Health Administration (OSHA) Standards

OSHA sets guidelines and regulations²⁵ to ensure a safe and healthy work environment. OSHA standards cover issues such as proper training, personal protective equipment, chemical handling, and sanitation practices within the food service industry. These regulations help protect employees' health and ensure that cleaning and hygiene practices are carried out safely.

Local health department regulations

Local health departments often have specific regulations and requirements for food service establishments within their jurisdiction. These regulations may include guidelines related to cleaning and sanitising practices, pest control, waste management, and facility design.



Environmental Protection Agency (EPA) Regulations

EPA regulations may apply to certain cleaning agents, sanitisers, and disinfectants used in the American food service industry.²⁶ These regulations ensure the safe and proper use of chemicals to protect human health and the environment. Compliance with EPA regulations includes following instructions for use, handling, and disposal of cleaning products.

Regular training, documentation, and record-keeping are crucial to demonstrate compliance with these regulations and maintain a safe food service environment. Engaging with industry associations, consulting with legal professionals, and keeping abreast of updates in regulations can help food service businesses stay compliant and prevent potentially catastrophic issues related to food safety and hygiene.

²² Cleaning effectively in your business | Food Standards Agency

²³ GMP | EFSA (europa.eu)

²⁴ Home CODEXALIMENTARIUS FAO-WHO

²⁵ Food safety - your responsibilities: Food hygiene - GOV.UK (www.gov.uk)

²⁶ U.S. Environmental Protection Agency | US EPA

Solutions

The food service environment is an inherently risky one. At any given moment there are countless variables which could compromise food safety. And just one mishap could be potentially fatal. Not only are customers at risk, the food service business could suffer reputational damage.

To help prevent food safety risks associated with cleaning, food service establishments should follow these basic guidelines:

- Train all employees on proper handwashing and cleaning procedures.
- Use approved cleaning chemicals and follow the manufacturer's instructions carefully.
- Store cleaning chemicals in a safe place, away from food and food contact surfaces.
- Clean and sanitise all food contact surfaces thoroughly after each use.
- Inspect food for any signs of physical contamination before serving it.
- Use separate cleaning cloths for cleaning different areas of the kitchen. This will help to prevent cross-contamination.
- Clean and sanitise equipment and utensils immediately after use.



- Clean and sanitise surfaces that come into contact with food at least once per day.
- Keep cleaning chemicals out of reach of children and pets.
- Dispose of cleaning chemicals properly.
- Report any spills or leaks to a manager immediately.

By following these guidelines, food service establishments can help to reduce the risk of foodborne illness and create a safe and sanitary environment for their customers.

Instilling the basics: Developing a strong food safety culture

When employees, managers, and leaders feel personally committed to food safety, they will do the right thing even when nobody is watching, even when it is not the cheapest or fastest approach. A strong organizational culture can help create and sustain that commitment. Over time, good food safety practices become the normal way of doing things and a source of personal pride.²⁷

In the food service industry, developing a robust food safety culture within the organisation from top to bottom is vital to ensure the highest standards of cleanliness and hygiene. A strong food safety culture promotes a shared commitment among all staff members to prioritise cleaning and hygiene practices.

Leadership and commitment

Creating a strong food safety culture starts with leadership. Management must demonstrate unwavering commitment to food safety and emphasise its importance to all employees. By setting clear expectations, providing necessary resources and training, and regularly reinforcing the significance of cleaning and hygiene, leaders can inspire and motivate everyone to uphold the highest standards.

Training and education

Proper training and education are crucial for fostering a food safety culture. All employees should receive comprehensive training on proper cleaning and hygiene practices. This

²⁷ Building a Stronger Food Safety Culture (food-safety.com)



includes understanding food safety regulations, learning effective cleaning techniques, identifying potential hazards, and adhering to established protocols. Continuous training and regular refresher courses ensure that staff members stay knowledgeable and up to date with best practices.²⁸

Communication and collaboration

Effective communication and collaboration play a pivotal role in building a strong food safety culture. Encourage open lines of communication between employees, allowing them to report concerns, suggest improvements, and share knowledge. Regular team meetings, safety briefings, and feedback sessions provide opportunities to discuss cleaning and hygiene practices, address any issues or challenges, and reinforce the importance of maintaining a clean and safe environment.

Clear Standard Operating Procedures (SOPs)

Establishing clear and concise Standard Operating Procedures (SOPs) for cleaning and hygiene tasks is essential. SOPs outline step-by-step instructions for each cleaning activity, ensuring consistency and uniformity in practices. Make SOPs easily accessible to all employees, and regularly review and update them as needed to reflect changes in regulations or best practices. Train employees on these procedures and provide them with the necessary tools and resources to carry them out effectively.

²⁸ How to Enhance the Food Safety Culture at Your Establishment (statefoodsafety.com)

Accountability and rewards

Creating a culture of accountability is crucial in maintaining cleanliness and hygiene standards. Clearly define expectations for all employees and hold them accountable for their actions. Implement monitoring and auditing systems to ensure compliance with established protocols. Recognise and reward employees who consistently adhere to cleaning and hygiene practices, fostering a sense of pride and motivation within the team.

Continuous improvement

A strong food safety culture is built on a foundation of continuous improvement. Encourage employees to contribute to the identification and implementation of process enhancements. Conduct regular evaluations and inspections to identify areas for improvement and develop action plans to address them. Stay updated with industry trends, technological advancements, and regulatory changes to ensure that cleaning and hygiene practices align with the latest standards.

All employees should receive comprehensive training on proper cleaning and hygiene practices.

Developing a strong food safety culture not only ensures customer safety but also lays the foundation for long-term success and a strong reputation in the industry.

Powered by your people: The importance of staff training

In the food service industry, it's all about the people – people who purchase food, prep food, cook food and serve food. Staff training plays a critical role in maintaining the highest standards of cleanliness and hygiene. Proper training equips employees with the knowledge and skills necessary to ensure food safety, prevent contamination, and uphold the reputation of the establishment.

Ensuring compliance with regulations

Compliance with food safety regulations is paramount in the food service industry. Staff training provides employees with an understanding of these regulations and their application in daily operations. Proper training ensures that employees are familiar with local health codes, sanitation requirements, and best practices for cleaning and hygiene. This knowledge helps businesses avoid penalties, maintain legal compliance, and safeguard the health of customers.

Preventing foodborne illnesses

Foodborne illnesses are a significant concern in the food service industry. Proper training educates employees about potential hazards, including cross-contamination, improper storage, and inadequate hygiene practices. Training equips staff with information on proper cleaning techniques, sanitisation protocols, and personal hygiene guidelines, helping to prevent the spread of pathogens and ensuring the safety of the food served.

Establishing consistent cleaning practices

Consistency in cleaning practices is essential to maintaining hygiene standards. Staff training

Compliance with food safety regulations is paramount in the food service industry.



ensures that all employees follow standardised cleaning procedures, using approved cleaning agents, tools, and techniques. Training helps employees understand the importance of thorough cleaning, the appropriate order in which tasks should be carried out, and the proper cleaning frequency for different areas and equipment. Consistent cleaning practices reduce the risk of cross-contamination, maintain a clean environment, and contribute to a positive customer experience.

Handling and safeguarding equipment

Proper staff training includes instruction on the correct handling and maintenance of equipment. This includes training employees on how to clean and sanitise equipment effectively, ensuring that proper procedures are followed to prevent damage or contamination. Training also covers equipment calibration, temperature monitoring, and regular maintenance requirements, maximizing the lifespan of equipment and minimizing the risk of foodborne illnesses.

Reinforcing personal hygiene practices

Staff training emphasizes the importance of personal hygiene in the food service industry. Training covers topics such as correct handwashing techniques, the use of disposable gloves, appropriate PPE attire, and the importance of regular hand hygiene. Employees

are educated on the proper handling, storage, and disposal of potentially hazardous substances. Reinforcing personal hygiene practices through training helps prevent the spread of contaminants, protects the health of employees and customers, and upholds the reputation of the establishment.

Enhancing customer trust and satisfaction

Customers place a high value on cleanliness and hygiene when choosing a food service establishment. Staff training ensures that employees are equipped to meet and exceed customer expectations in terms of cleanliness and hygiene practices. Well-trained staff members instil confidence in customers, enhance their trust in the establishment, and contribute to overall customer satisfaction. Positive customer experiences not only lead to repeat business but also generate positive word-of-mouth recommendations.

Investing in staff training not only protects the health and safety of customers but also contributes to the overall success and reputation of the food service establishment.

Rise of the robots: Harnessing innovation and automation for optimised food safety

Innovation and automation have revolutionised numerous industries, and the food service industry is no exception. When it comes to cleaning and hygiene, leveraging cutting-edge innovative technologies and automation offers significant benefits for optimising food safety



Innovation and automation streamline cleaning and hygiene processes, making them more efficient and effective.

by streamlining food safety processes and reducing human error. ²⁹

Enhanced cleaning efficiency

Innovation and automation streamline cleaning and hygiene processes, making them more efficient and effective. Automated cleaning equipment, such as robotic floor scrubbers or dishwashing systems, can cover larger areas and perform tasks with precision, reducing the time and effort required by staff. This allows employees to focus on other important tasks, while ensuring thorough cleaning and sanitation throughout the establishment. The result is improved cleanliness and hygiene standards, reducing the risk of contamination.

Consistent cleaning protocols

Innovative technologies enable the implementation of standardised and consistent cleaning protocols. Automated systems can be programmed with specific cleaning instructions, ensuring that each task is performed with precision and uniformity. This consistency helps eliminate variations in cleaning practices that can arise due to human error or differing interpretations. By implementing automation, businesses can maintain a consistent level of cleanliness and hygiene across all areas of the establishment.³⁰

Data-driven decision making

Innovation and automation allow for the collection and analysis of data related to cleaning and hygiene practices. Smart sensors and monitoring systems can provide real-time data on temperature, humidity, air quality, and other environmental factors. This data can assist

²⁹ Frontiers | Challenges and Opportunities in Robotic Food Handling: A Review (frontiersin.org)

³⁰ AI And Automation Innovation In The Food Industry (ibtimes.com)



in identifying areas that require immediate attention, detecting potential risks, and improving operational efficiency. By using datadriven insights, businesses can make informed decisions, implement preventive measures, and optimise their cleaning and hygiene practices to ensure food safety.³¹

Remote monitoring and control

Automation enables remote monitoring and control of cleaning and hygiene processes. Connected systems and smart devices allow managers to monitor cleaning activities, equipment performance, and hygiene parameters from a distance. This remote access enables proactive management, facilitating timely interventions, and addressing any issues that may arise. Remote monitoring also enables real-time visibility, ensuring adherence to cleaning schedules and confirming that protocols are being followed consistently.

Minimised human error

Although the food service industry is people orientated - the reality is that in this fast and frenetic environment, slip-ups and lapses in judgement occur. Innovative technologies and automation significantly reduce the risk of human error in cleaning and hygiene practices. Automated systems follow pre-programmed instructions precisely, minimising the chance

of oversight or mistakes. This reduces the likelihood of cross-contamination, ensures the correct use of cleaning agents, and eliminates human errors that could compromise food safety. By minimising human error, food service businesses can maintain elevated cleanliness and hygiene standards, thereby safeguarding the well-being of customers.

Cost-effective solutions

While the initial investment in innovative technologies and automation may seem daunting, they can provide long-term cost savings. Automated systems improve cleaning efficiency, save on labour costs, reduce the consumption of cleaning agents, and minimise potential operational disruptions due to hygiene issues. By optimising processes and utilising automation, businesses can achieve costeffective solutions while improving food safety.

Investing in innovation and automation is a forward-thinking future proof approach that ensures the food service industry stays at the cutting-edge forefront of food safety practices.³²

³¹ The Future of Food Safety Is Data Driven - FoodSafetyTech

Co-operation is key: Strengthening partnerships for optimal food safety

Ensuring safe food is a shared responsibility that depends on capacity, collaboration and strong partnerships across diverse public and private sector stakeholders. Fostering strong relationships with suppliers, cleaning service providers, and regulatory authorities is crucial to the success of a food focused business.³³

Supplier collaboration

Collaborating closely with suppliers is essential for ensuring cleanliness and hygiene in the food service industry. Suppliers play a critical role in delivering safe, quality ingredients and products. By working together, businesses can enhance their understanding of supplier practices, verify compliance with food safety standards, and establish protocols for receiving, handling, and storing ingredients. Strong partnerships with suppliers promote transparency and enable timely communication, ensuring the safety and integrity of the food supply chain.

Cleaning service providers

Cleaning service providers play a pivotal role in maintaining cleanliness and hygiene in the food service industry. Developing strong partnerships Partnerships with training and education providers are crucial in promoting continuous improvement in cleaning and hygiene practices.

with these providers allows businesses to benefit from their expertise and specialised knowledge. Regular communication and collaboration with cleaning service providers enable the establishment of tailored cleaning plans, appropriate scheduling, and alignment with best practices. Sharing information on specific hygiene requirements, areas of concern, and changes in operations helps ensure that cleaning is efficient, effective, and compliant with industry standards.

Training and education partners

Partnerships with training and education providers are crucial in promoting continuous improvement in cleaning and hygiene practices. Collaborating with these partners allows businesses to access specialised training programs, certifications, and expert guidance.

³³ Public-Private Partnership for Safer Foods | Food Safety (food-safety.com)



Training and education providers can offer customised training modules, ensuring that employees receive up-to-date information on best practices, regulations, and emerging trends in cleaning and hygiene. By partnering with these organisations, businesses can empower their employees with the knowledge and skills necessary to maintain optimal food safety standards.

Regulatory authority cooperation

Maintaining a strong partnership with regulatory authorities is fundamental to ensure compliance with cleaning and hygiene regulations. Actively engaging with regulatory authorities fosters trust and demonstrates a commitment to food safety. Collaborating with these agencies through regular communication, participation in inspections, and seeking guidance helps businesses stay updated with evolving regulations. Building a positive relationship with regulatory authorities establishes a foundation of mutual understanding and cooperation to ensure compliance and enhance food safety practices.

Peer networks and industry associations

Engaging with peer networks and industry associations provides valuable opportunities to learn from peers, share insights, and collaborate on best practices. Participating in industry events, conferences, and forums allows businesses to connect with like-minded professionals and exchange knowledge on cleaning and hygiene practices. Through these partnerships, businesses can stay informed about the latest innovations, industry developments, and emerging trends to continuously improve food safety.

Continuous communication and feedback

Open and continuous communication is critical for successful partnerships in cleaning and hygiene. Regular communication channels, such as meetings, email updates, and shared documentation, enable timely information exchange and facilitate problem-solving. Soliciting feedback from partners, such as suppliers, cleaning service providers, training organisations, and regulatory authorities, allows businesses to pinpoint areas for improvement and implement corrective measures promptly.

Strong relationships foster open communication, knowledge sharing, and a collective commitment to upholding the highest standards of cleanliness and hygiene,



contributing to the success and reputation of food service businesses.

Case Studies: food safety in the food service industry

Food safety is a critical concern in various sectors, including schools, restaurants, and hospitals. Maintaining high standards of cleanliness and hygiene is essential to protect the health of students, diners, and patients.

Maintaining a strong partnership with regulatory authorities is fundamental to ensure compliance with cleaning and hygiene regulations.

Case Study 1:

School

In a school cafeteria, there were recurring incidents of foodborne illnesses among students. Upon investigation, it was discovered that the root cause was improper cleaning and hygiene practices. The school administration collaborated with a professional cleaning services provider, implementing the following solutions:

- Training and education: staff members involved in food preparation and handling received comprehensive training on proper cleaning techniques, food storage, and personal hygiene.
- Enhanced sanitisation: the cleaning team introduced a more rigorous sanitisation schedule to ensure all food contact surfaces, utensils, and equipment were properly cleaned and sanitised.
- Hand hygiene practices: the school implemented strict handwashing protocols for all staff members and students, emphasising proper handwashing techniques and the use of hand sanitisers.

By implementing these measures, the school witnessed a significant decrease in foodborne illness incidents, ensuring a safer and healthier environment for students.

Upon investigation, it was discovered that the root cause was improper cleaning and hygiene practices.

Case Study 2:

Restaurant

A popular restaurant faced backlash from customers due to recurring cases of food poisoning. After thorough investigations, it was found that inadequate cleaning and hygiene practices were the root cause of contamination. The restaurant management took the following steps to rectify the situation:

- Deep cleaning: the entire kitchen and dining area underwent a deep cleaning process to remove any lingering contaminants and ensure a fresh start.
- HACCP implementation: the restaurant implemented a Hazard Analysis Critical Control Points (HACCP) system, which involved identifying critical control points, setting appropriate control measures, and implementing regular monitoring of these points to prevent foodborne hazards.
- Staff training: the restaurant invested in comprehensive training programs for staff members, focusing on proper cleaning procedures, personal hygiene, and awareness of food safety risks. Regular refresher courses were conducted to ensure ongoing compliance.
- Enhanced cleaning protocols: the restaurant implemented stricter cleaning protocols, including regular disinfection of surfaces, handling of raw and cooked foods separately, and thorough cleaning of utensils and equipment.

Through these measures, the restaurant successfully addressed food safety issues, regained customer trust, and saw an improvement in customer satisfaction and loyalty.



Case Study 3:

Hospital

A hospital faced challenges with healthcareassociated infections (HAIs) in its cafeteria, affecting both staff members and patients. The hospital administration sought to minimise the risk of contamination by implementing the following strategies:

- Enhanced cleaning and disinfection: the cleaning staff received specialised training on infection control protocols. They implemented a stringent cleaning and disinfection regime, paying close attention to high-touch surfaces, food contact areas, and equipment.
- Utensil sterilisation: the hospital upgraded its utensil cleaning process, incorporating high-temperature sterilisation methods to ensure complete elimination of pathogens.
- Strict food storage: proper food storage practices became a priority, with clear guidelines on temperature control, segregation of raw and cooked foods, and regular monitoring of food expiration dates.
- Hygiene compliance monitoring: the hospital implemented regular hygiene compliance monitoring, including hand hygiene

audits among staff members and periodic inspections of cleaning protocols to ensure adherence to established standards.

By implementing these measures, the hospital successfully reduced the risk of HAIs associated with the cafeteria, ensuring a safer dining experience for all patients, staff, and visitors.³⁴

Case Study 4:

E. Coli outbreak in a fast-food chain

In 2015, Chipotle, a fast-food chain in the USA, experienced a widespread E. coli outbreak.³⁵ The outbreak caused by norovirus, salmonella, and E. Coli made more than 1,100 people between 2015 and 2018 ill. The investigation uncovered issues such as improper sanitisation of food contact surfaces, insufficient hand hygiene among employees, and inadequate

Enhanced cleaning and disinfection: the cleaning staff received specialised training on infection control protocols.

³⁴ Report of FSA Evidence to NHS Food Review

storage practices. These lapses in cleaning and hygiene protocols contributed to cross-contamination, allowing the E. coli bacteria to proliferate.

The chain's negligent attitude toward maintaining health standards was serious enough to warrant criminal charges. The Justice Department charged Chipotle with violating federal law by adulterating food. As a result, the fast-food chain faced severe consequences, including a significant decline in customer trust, negative publicity, legal actions, and financial losses. Chipotle agreed to improve its food safety program as well as pay a \$25 million criminal fee to avoid conviction, the largest-ever fine of its kind.

This case serves as a reminder of the critical importance of robust cleaning and hygiene practices to prevent the spread of pathogens and protect customer health.

Case Study 5:

Successful implementation of comprehensive cleaning program in well-known hotel chains Marriott has a Marriott Cleanliness Council consisting of in-house and outside experts in food and water safety, hygiene and infection prevention, and hotel operations, which is redefining their cleaning and safety standards.

The Justice
Department charged
Chipotle with violating
federal law by
adulterating food.

Similarly Hilton has launched a new standard of cleanliness called Hilton CleanStay. Accor has launched the ALLSAFE Label Framework. These programs have been designed to ensure that guests feel safe and comfortable during their stay.

Inadequate cleaning and hygiene protocols can have dire consequences, leading to outbreaks of foodborne illnesses and significant damage to a hotel's reputation.³⁶ Conversely, implementing robust and comprehensive cleaning programs can enhance food safety, protect customer health, and contribute to a positive customer experience.

³⁶ (PDF) Innovative Food Safety Strategies in a Pioneering Hotel (researchgate.net)



³⁵17 of the Worst Foodborne Illness Outbreaks in U.S. History (healthline.com)



Exciting developments on the horizon: What does the future hold for food safety?

As the food service industry continues to evolve, so does the focus on food safety. Cleaning and hygiene practices play a crucial role in ensuring the highest standards of food safety. With advancements in technology, changing regulations, and shifting consumer expectations, the future of food safety in the food service industry looks promising.

Technological advancements

The future of food safety in the food service industry will undoubtedly be shaped by technological advancements. Innovative solutions such as automated cleaning systems, robotics, artificial intelligence, and Internet of Things (IoT) devices will revolutionise cleaning and hygiene practices.

Automated cleaning systems and robotics can streamline cleaning processes, reducing the risk of human error, and ensuring consistent results. All applications can be utilised for real-time data analysis, improving monitoring and proactive risk management. IoT devices can enable remote monitoring and control, enhancing the efficiency and effectiveness of cleaning operations.

Predictive analytics and AI

The future of food safety in the food service industry will rely heavily on predictive analytics and artificial intelligence (AI). These The future of food safety in the food service industry will undoubtedly be shaped by technological advancements.

technologies can analyse vast amounts of data to identify patterns, predict potential risks, and provide proactive recommendations.

By combining historical data, real-time monitoring, and AI algorithms, businesses can take preventive measures to minimise contamination risks. Predictive analytics can help identify potential areas of concern, such as equipment malfunctions or ingredient quality issues, allowing for timely interventions and improved food safety practices.

Enhanced cleaning products and technologies

As the demand for safer and more effective cleaning and hygiene practices grows, so does the development of advanced cleaning products and technologies. Innovations such as antimicrobial coatings, UV disinfection technology, and eco-friendly cleaning agents are becoming more prevalent.

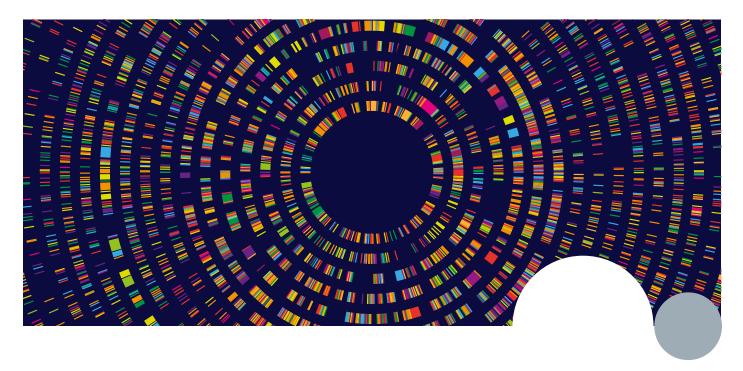
Antimicrobial coatings can provide long-lasting protection against pathogens on surfaces, reducing the risk of cross-contamination. UV disinfection technology can rapidly and effectively eliminate harmful microorganisms in the air and on surfaces. Eco-friendly cleaning agents are gaining popularity as businesses strive to reduce their environmental impact while maintaining cleanliness and hygiene standards.

Data-driven approaches

In this age of data, digital tools are widely promoted as having tremendous potential for enhancing food safety.³⁷

Data-driven approaches will become integral to food safety in the future. Organisations will leverage data gathered from various sources,

³⁷ Full article: A perspective on data sharing in digital food safety systems (tandfonline.com)



including smart sensors, monitoring systems, and digitised records, to make informed decisions about cleaning and hygiene practices.

By analysing this data, businesses can identify trends, predict potential risks, and implement preventive measures to maintain optimal food safety standards. Real-time monitoring of critical parameters such as temperature, humidity, and air quality can provide early warnings, allowing for timely interventions.

Blockchain technology

Blockchain technology can be used to track food products from farm to table, ensuring that they are safe for consumption. This technology can help prevent foodborne illnesses by providing a transparent record of the origin of the food product.³⁸

Whole Genome Sequencing

Whole genome sequencing is a technique that can be used to identify pathogens in food products. This technique can help identify the

Whole genome sequencing is a technique that can be used to identify pathogens in food products.

source of a foodborne illness outbreak quickly, allowing for a faster response time.³⁹

Enhanced training and education

As the importance of cleaning and hygiene grows, the need for enhanced training and education will become paramount. The future will see a stronger focus on equipping employees with comprehensive knowledge and skills in food safety practices.

Training programs will incorporate interactive and immersive technologies, such as virtual reality (VR) simulations and augmented reality (AR) training modules. These technologies will provide employees with realistic scenarios, allowing them to practice and respond to various cleaning and hygiene challenges. Continuous education and certifications will be emphasised to ensure that employees stay updated with the latest regulations and best practices.

Integration of sustainability practices

Sustainability will play a significant role in shaping the future of food safety and cleaning and hygiene practices. Businesses will increasingly focus on reducing waste, conserving resources, and adopting environmentally friendly cleaning solutions.

Utilising eco-friendly cleaning agents, implementing water and energy-saving technologies, and reducing single-use plastics will be key priorities. Partnerships with suppliers

³⁸ FMI | Innovation is the Future of Food Safety

³⁹ FMI | Innovation is the Future of Food Safety

and cleaning service providers committed to sustainability will become the norm.

Shift towards preventive measures and risk management

The future of food safety will see a shift towards preventive measures and proactive risk management. Organisations will prioritise identifying potential risks in cleaning and hygiene practices and implementing measures to address them before issues arise.

Regular audits, evaluations, and inspections will be carried out using advanced technologies to ensure compliance and identify areas for improvement. Businesses will adopt a more collaborative approach, partnering with experts, regulatory authorities, and industry associations to stay at the forefront of food safety practices.

By embracing these exciting new trends, businesses can ensure optimal food safety standards, protect customer health, and demonstrate their commitment to cleanliness and hygiene. The future holds great potential for a safer food service industry, where innovation ultimately benefits both businesses and consumers alike.

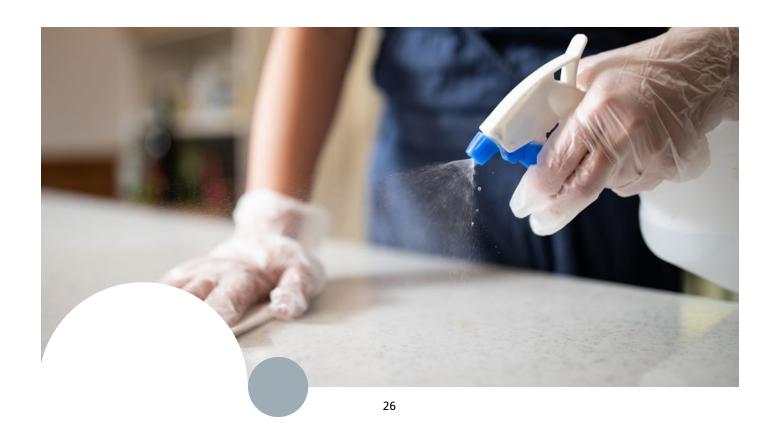
Conclusion: facing challenges and embracing the future

Cleaning and hygiene risks in the food service industry, from inside the kitchen to outside in the serving area can jeopardise food safety and customer health. Cross-contamination, Businesses will increasingly focus on reducing waste, conserving resources, and adopting environmentally friendly cleaning solutions.

poor hand hygiene, improper cleaning and sanitising techniques, inadequate pest control, and insufficient hygiene in dining areas are just some of the risks that need to be addressed.

By prioritising food safety and adhering to rigorous cleaning and hygiene standards, businesses in the food service industry can ensure the well-being of their customers and uphold their reputation as providers of safe and high-quality food experiences.

Afterall - food should be a delight and not a death sentence!



Uniting and showcasing the global hygiene and cleaning community: Interclean's role as facilitators and experts

Interclean is proud to be one of the foremost facilitators in promoting the highest standards of food safety. Our extensive international network includes some of the biggest names in the cleaning and hygiene industry, allowing us to forge exciting relationships with some of the world's leading experts in food safety.

Through showcasing the latest developments in hygiene, sanitation, and cleaning within the food service industry, we are helping to support and enhance food safety initiatives – protecting the health and wellbeing of customers and consumers and helping restaurants, catering companies, industrial kitchens, and many other dynamic entities within this sector to thrive.

As the world's leading platform for professionals in the world of cleaning and hygiene, Interclean has been on the forefront of advances within the cleaning industry since Interclean Amsterdam was first founded in 1967. During inspiring events in Amsterdam, China and

Online, Interclean offers a complete overview of products, services and innovations from the world's leading companies. Interclean is also a highly regarded knowledge-sharing platform – providing access to the very latest news, views and analysis on cleaning and hygiene.

Interclean excels in uniting cleaning expertise under one roof, to share cutting-edge innovations and forge strategic partnerships - together we can learn, grow, and lead.

For more information on Interclean and how to become part of this exciting new wave in cleaning and hygiene visit our website: **www.intercleanshow.com** and JOIN OUR EVENTS.

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