Proposed Future Operating Model Outline

This document provides an outline of Safe Food Production Queensland's (Safe Food) proposed Future Operating Model for the delivery of regulatory services. It explains what is being proposed, why it matters, how it would work in practice, and what the key benefits are for industry, consumers, and government.

Drivers for a new approach

Food production and supply chains are becoming more complex. Changes in climate, new diseases, large-scale distribution, and higher customer expectations mean food safety risks can change quickly.

Safe Food already uses several regulatory schemes to manage these risks. However, the current approach relies mostly on regular audits and assessments. These are useful for checking compliance at a point in time, but they can be resource-intensive and may not identify new or emerging risks early. They also make it harder to adjust oversight based on a business's ongoing performance.

At present, businesses doing similar activities are often regulated in the same way, even if their risk level or compliance history is different. Data such as production records, notifications, complaints, and external risk factors (for example, weather events or disease outbreaks) are collected, but not consistently brought together in one system to support timely, informed decisions.

The Future Operating Model aims to address these gaps by improving how information is used to manage risk and guide regulatory action.

The Future Operating Model

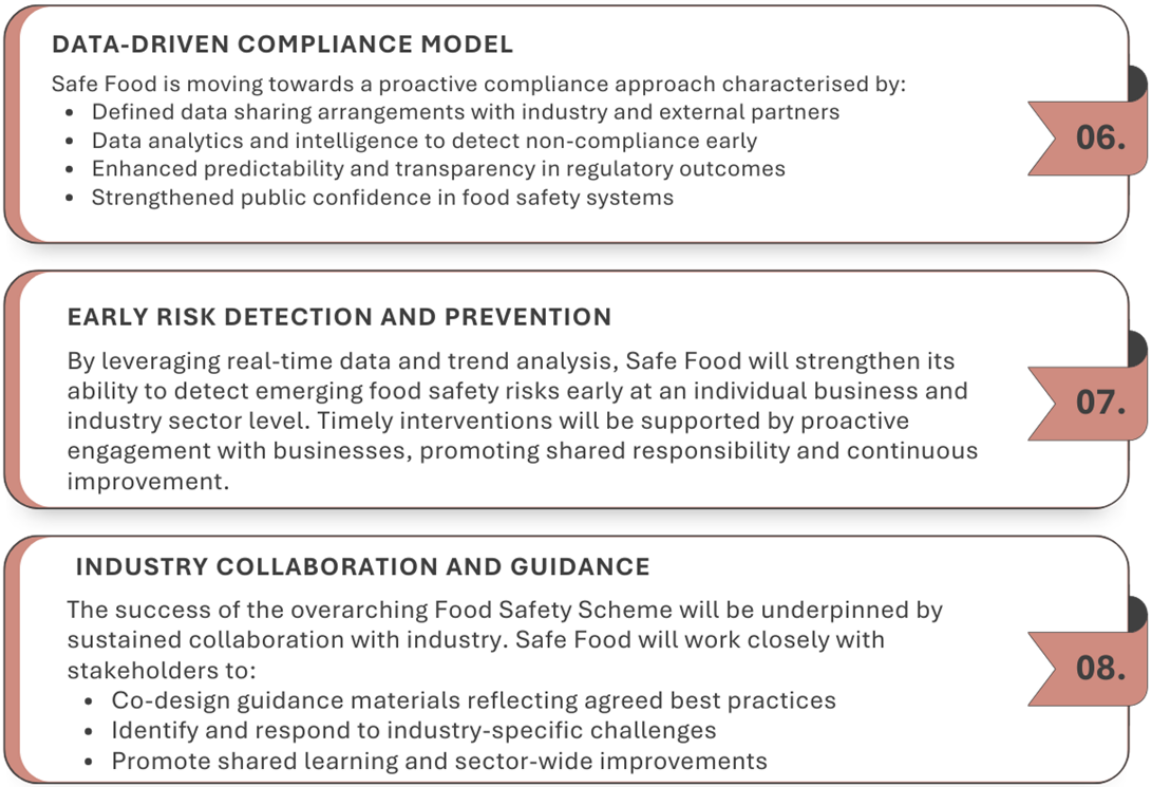
The Future Operating Model is Safe Food's pathway to modernise how food safety is regulated. At its core is a single Food Safety Scheme based on risk management. This scheme will bring together current industry-specific schemes and align with national food standards.

The model introduces a more modern approach that is risk-based, adaptive, informed by data and insights, and focused on outcomes. A key change is how businesses are regulated. Instead of treating businesses the same based on their industry, regulation will be based on risk and performance. This means:

- Businesses with higher risks or poor compliance will receive closer oversight
- Businesses with strong, consistent food safety practices will have less regulatory burden.

The main elements of the proposed Future Operating Model are shown in Figure 1.

Figure 1. Main elements of the Future Operating Model



System-wide surveillance

Safe Food's future operating model places greater emphasis on the targeted collection and analysis of information at key, strategic points across the food supply chain. This approach recognises that effective regulation is achieved by understanding and monitoring how the whole system performs, rather than relying solely on routine, uniform inspection activity at individual businesses.

By focusing surveillance effort where risk is higher, controls are most influential, or failures could have system-wide consequences, Safe Food will generate richer and more meaningful intelligence about how the operating model is performing in practice. This includes bringing together information from across production, processing, distribution and retail stages, as well as supporting intelligence such as compliance history, incident notifications, audit outcomes and emerging risks.

Information gathered through system-wide surveillance will be used to:

- verify that regulatory controls and assurance mechanisms are operating as intended
- identify trends, systemic weaknesses and emerging risks across the supply chain
- inform targeted, proportionate regulatory responses and resource allocation
- support continuous improvement of the operating model and regulatory settings.

This intelligence-led approach strengthens Safe Food's ability to provide assurance that food safety outcomes are being achieved, while allowing regulatory effort to be applied in a more targeted and effective way, focused on delivering the greatest public health benefit.

Business compliance pathways

Under the model, each business is assessed based on its level of risk. This includes:

- Inherent risk – the type of product and processing involved; and
- Exposure risk – how many people could be affected if something goes wrong.

This assessment sets the starting point for fees and the level of oversight. There are five risk categories as shown in Figure 2.

Figure 2. Future Operating Model risk categories

Ongoing compliance is then based on performance, data sharing, and proven capability—not just fixed schedules.

The model brings together existing activities, including accreditation, audits, assessments, notifications, and industry baselines. These are connected through a digital, data-driven system. This helps Safe Food move from a reactive approach to one that is more predictive and based on better information.

The model also allows Safe Food to recognise approved industry programs that meet regulatory requirements. This can reduce audit burden for growers and processors while maintaining compliance. Safe Food will continue to check these programs to make sure they remain effective and achieve the required outcomes.

Risk readiness and response

Through undertaking system-wide surveillance and implementing business compliance pathways, the model will help Safe Food respond earlier to emerging food safety risks. Predictive tools will identify changes in risk and trigger alerts when needed. Businesses will be expected to review the issue, explain what is happening and take corrective action.

Safe Food will support or step in only if needed. This approach supports a more collaborative and intelligence-led system. It focuses on risk communication, risk assessment, risk management, and risk response.

It is supported by targeted notifications and assessments, either across an industry or for specific businesses, when new risks emerge.

The future model will help Safe Food respond earlier to emerging food-safety risks by using predictive modelling to trigger alerts when risk indicators deviate from agreed thresholds, prompting businesses to assess issues, provide explanations, and take corrective action first, with Safe Food supporting or intervening only if needed (“yours, ours, mine”).

It outlines a shift to a more collaborative, intelligence-led approach built around risk communication, risk management, risk assessment, and risk response protocols, supported by targeted notifications during emerging risks and sector-wide or business-specific assessments.

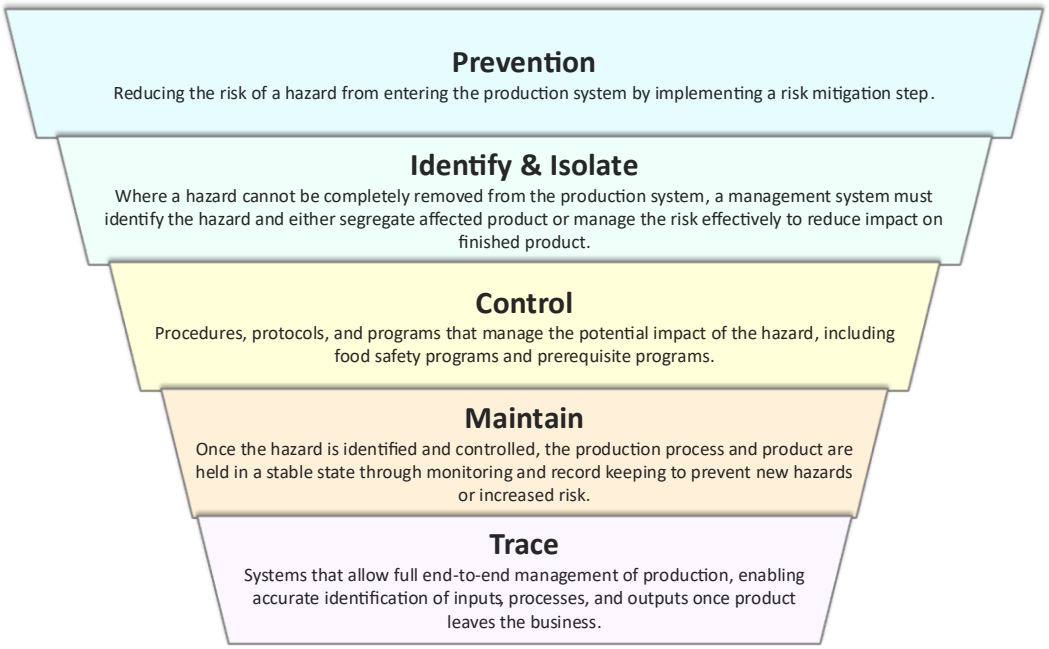
Risk Prioritisation Model (RPM)

Safe Food’s Risk Prioritisation Model (RPM) is the analytical engine that supports the Future Operating Model. It converts information about a business into a single, transparent score that reflects both risk and maturity. In simple terms, the RPM will assist Safe Food in assessing the risks generated and managed by the business, how well the business understands these risks, and how effectively the businesses mitigate these risks over time. The RPM will help determine compliance pathways and regulatory actions based on priority levels as summarised in Figure 3.

Figure 3. Priority levels

The RPM draws on several sources of information. Businesses complete a Business Profile and Business Characteristics questionnaire, describing how they operate and how they manage food safety risks. Their answers are mapped against well-established food safety principles—Prevent, Identify, Isolate, Control, Maintain, and Trace—to reflect how effectively risks are managed in practice. These principles are summarised in the Preventative Risk Management Pyramid, below.

Figure 4. The Preventative Risk Management Pyramid



As a business operates, additional information is added. This includes audit and assessment outcomes, notifications and complaints, production and performance data (real-time versus periodic), and relevant external information such as climate risks etc. These inputs are combined to generate a maturity score that can adjust over time, depending on performance.

A key innovation is the use of predictive/probabilistic modelling, . This means using data to estimate the likelihood that something might go wrong in the future, rather than waiting until it does. The model looks at how different factors—such as hygiene controls, production conditions, and external influences—interact and how changes in one area may increase or reduce risk overall.

When risk indicators move outside agreed thresholds, the system can generate an alert. This is intended as an early warning, allowing businesses to take corrective action before food safety is compromised. Safe Food is notified as well, enabling a coordinated and proportionate response.

Testing the model

To test the RPM works in practice, Safe Food conducted a proof of concept using the egg industry. Six simulated egg producer profiles were created, representing a range of operating practices—from best practice through to minimal compliance. Realistic production data and external conditions were applied to these profiles.

The proof of concept (POC) demonstrated that the RPM can differentiate between businesses based on their controls and performance. Businesses with strong preventive measures and better compliance histories received higher maturity scores, while businesses with weaker controls scored lower. When simulated audit failures or adverse conditions were introduced, scores adjusted downward in a transparent and consistent way.

Importantly, the POC showed that maturity scores could be linked to compliance pathways. A business that initially appeared low-risk could move into closer oversight following poor performance, while strong ongoing performance could justify reduced regulatory interventions.

This demonstrates how the RPM can support a more flexible, risk-based approach to regulation.

Benefits for stakeholders

Safe Food will continue to move away from frequent, individual audits towards broader, sector-wide surveillance. This will promote continuous improvement for both Safe Food and its regulated sectors, minimising unnecessary intervention for compliant businesses. This creates a more transparent and fairer approach, with businesses able to see how their actions influence how they are regulated. They can reduce the level of regulatory intervention by investing in good practices, data sharing, and supporting continuous improvement.

For Safe Food, the model helps target resources more effectively. Instead of applying the same level of oversight to all businesses, effort can be focused where risk is highest or increasing. Over time, this improves efficiency, consistency, and confidence in regulatory decisions.

For consumers and government, the main benefit is stronger food safety assurance. Earlier detection of emerging risks, better use of data, and clearer accountability all contribute to reduced likelihood and impact of food safety incidents.

Next Steps

Safe Food will introduce the Future Operating Model in stages. The model's implementation represents a major shift from predominantly manual processes to a fully digital, risk-based, performance-driven regulatory system. It will change how Safe Food operates and how industry engages and collaborates with Safe Food.

While Safe Food can implement the model without legislative change, legislative amendments are preferred to provide greater certainty and stability for businesses. This includes amendments to move from separate commodity-based schemes to one unified food safety scheme.

Safe Food is also making internal changes to support a smooth transition. A new digital platform is being developed that will provide a simpler, more user-friendly experience with real-time feedback, mobile access, system integrations and clearer tracking of compliance.

The fee model will also change. Fees will be based on risk, linked to a business's classification. Payment and debt processes will become more automated.

The rollout will start with a minimum viable product in one sector. This will allow Safe Food to further test and improve the model before expanding it.

Because data is central to the model, Safe Food is strengthening how it manages and uses data. This includes secure data sharing between Safe Food and industry.

What this means for accredited businesses

To prepare for this transition, Safe Food will work with accredited businesses to ensure those businesses that are less digitally mature will not be disadvantaged. Until this time, businesses should start preparing by:

- Reviewing current food safety practices
- Improving data quality and record keeping
- Building capability to share data digitally
- Engaging with Safe Food as new tools and guidance are released.

You can also stay informed and get involved by following updates and participating in pilot activities as they become available.