

# Food Standards Australia New Zealand

Regulatory Science Strategy 2019–23



## Copyright statement

© Food Standards Australia New Zealand 2019

Food Standards Australia New Zealand (FSANZ) supports and encourages the dissemination and exchange of information. Information in this report is provided under a Creative Commons Attribution 3.0 Australia (CC BY 3.0) Licence, except for the Food Standards Australia New Zealand logo. An electronic version of this work is available on the FSANZ website at [www.foodstandards.gov.au](http://www.foodstandards.gov.au) and, for New Zealand, [www.foodstandards.govt.nz](http://www.foodstandards.govt.nz).



### Attribution

You may copy, distribute, transmit and adapt the material in this publication by the CC BY 3.0 licence for commercial and non-commercial purposes; but you must attribute the work in the following manner:

© Food Standards Australia New Zealand.

This attribution must not, in any way, suggest that FSANZ endorses you or your use of the work.

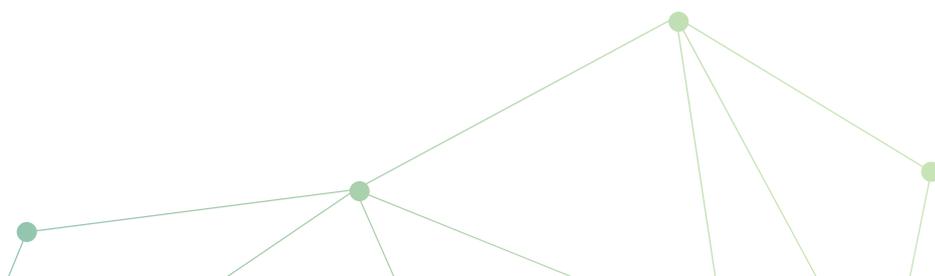
For more information email [information@foodstandards.gov.au](mailto:information@foodstandards.gov.au).

FSANZ Australia PO Box 5423 Kingston ACT 2604 AUSTRALIA Ph: +61 2 6271 2222	FSANZ New Zealand PO Box 10559, Wellington 6143 NEW ZEALAND Ph: +64 4 473 5630
---	--

# CONTENTS

---

Message from the CEO .....	1
Purpose of the FSANZ Regulatory Science Strategy .....	4
Importance of high quality science to the food regulatory system .....	5
Regulatory science at FSANZ .....	5
Our environment .....	7
Expected outcomes .....	8
<b>Our Science Streams</b> .....	<b>9</b>
Nutrition science .....	9
Chemical risk assessment .....	10
Microbiology and biotechnology .....	11
Social science and economics .....	12
The importance of scientific data .....	12
<b>Meeting the challenges: Our Strategic Objectives</b> .....	<b>13</b>
Objective 1: Outstanding regulatory scientific capability .....	14
Objective 2: Modern scientific evidence base and application of best practice tools and methods .....	16
Objective 3: Work with and leverage from our domestic and international regulatory partners .....	18
Objective 4: Link and partner with key contributors such as academia, research institutions and industry .....	19
Objective 5: Communicate our science clearly and simply .....	21
Strategic delivery and evaluation .....	22





## Message from the CEO

As the Chief Executive Officer (CEO) of Food Standards Australia New Zealand (FSANZ), I am delighted to present our Regulatory Science Strategy 2019–23 (the Strategy).

Science is a critical core competency that underpins our ability to achieve our purpose. High quality regulatory science is based on the best available evidence, incorporates information from numerous disciplines and forms the foundation for our evidence-based regulatory decision-making that protects people from hazards that may arise from food.

We are proud to be recognised as leaders in regulatory science. Our people have a unique combination of extensive scientific expertise and technical capabilities, who work together and share expert knowledge and solve complex regulatory problems.

This forward looking strategy ensures we remain prepared to respond to the challenges of global trends and emerging risks in a dynamic food system. It positions us as a trusted coordinator of credible information on food safety, and ensures that the risk analysis framework remains appropriate to respond to the challenges of a changing food system. It supports us to maintain a high level of consumer protection and gives consumers a high level of confidence in the safety of food in Australia and New Zealand.

Importantly, the Strategy outlines how we will continue to align our work in Ministerial priority areas, and sets out our plan to grow our scientific and risk analysis capabilities, scientific evidence base and risk assessment methodologies. Our capabilities enable us to remain flexible and agile in meeting the needs of a constantly evolving food production system, for the benefit of food producers, manufacturers and consumers.

Through this ambitious strategy, FSANZ will build stronger links with academia and industry, further leverage resources through strategic partnerships and communicate our science to meet the needs of all of our stakeholders. It maintains FSANZ at the forefront of regulatory science for food and our brand as a guarantee of the highest quality scientific standards and trusted advice.

Mark Booth  
Chief Executive Officer  
October 2019

# About us

FSANZ is an independent statutory agency established by the FSANZ Act 1991, and is part of the Australian Government's Health portfolio<sup>1</sup>.



Our goals are to enable consumer confidence, support a robust food industry, provide information and promote consistency between domestic and international food regulatory measures while protecting public health. We do this by developing food standards that are informed by the best available scientific evidence, providing food standards information and coordinating aspects of the food regulatory system. FSANZ does not play a role in the enforcement of the standards throughout the food chain.

The food regulation system is complex and is the responsibility of national (Australia and New Zealand) and state and territory governments. FSANZ is governed by the Ministers Responsible for Food Regulation, who have set **three priorities**<sup>2</sup> to further strengthen the food regulation system during 2017–21:

1

reducing foodborne illness, particularly related to *Campylobacter* and *Salmonella*

2

supporting public health objectives to reduce chronic disease related to overweight and obesity

3

maintaining a strong, robust and agile food regulation system

As a key component of the system, FSANZ has a significant role in delivering on these priorities.

1. <http://www.foodstandards.gov.au/about/Pages/default.aspx>

2. <https://foodregulation.gov.au/internet/fr/publishing.nsf/Content/current-activities>

Over the past couple of years, support has been expressed for a review across government and industry to ensure that the food regulation system remains fit-for-purpose. Having a central role, FSANZ is well placed with expertise, experience and established networks to support this change. In light of this, FSANZ is considering its legislation and how we can leverage core expertise to effectively support the system in the context of changing technologies and expectations.



Our [Corporate Plan](#)<sup>3</sup> provides the overarching framework for all of our activities. It describes strategic directions for the agency under three broad and interdependent themes: a trusted leader, deeply engaged with stakeholders, and independent contributor to a robust and agile food regulatory system. Four key enablers to achieve performance are described in the Corporate Plan: regulatory science, people, communication, and governance.

#### Four key enablers to achieve performance are described in the Corporate Plan:



regulatory science



people



communication



governance

3. <http://www.foodstandards.gov.au/publications/Pages/Corporate-Plan.aspx>

## Purpose of the FSANZ Regulatory Science Strategy

FSANZ's role is to protect public health and safety by

1. developing food standards that are informed by the best available scientific evidence
2. providing food standards information
3. coordinating aspects of the food regulatory system

Our decision-making is supported by robust evidence and sustained high quality scientific capability. This ambitious strategy sets out our plan to develop and maintain our scientific evidence base and risk assessment methodologies, expand our capabilities, leverage resources through strategic partnerships, and communicate our science to meet stakeholder needs.

It positions us to achieve the strategic direction set by our Board as a recognised leader of food regulatory science in our region, the trusted coordinator of credible information on food safety, and ensures that the risk analysis framework remains appropriate to respond to the challenges of a dynamic food system.

The Strategy also outlines how we will continue to align our work in the three priority areas set by the Ministers responsible for food regulation.

Maintaining and expanding our regulatory science capabilities will enable FSANZ to remain flexible and agile in meeting the needs of a constantly evolving food production system, for the benefit of food producers, manufacturers and consumers.



## Importance of high quality science to the food regulatory system

A strong scientific evidence base is essential for ensuring confidence that food across Australia and New Zealand is suitable and safe to consume as part of a normal diet. It safeguards a sustainable food supply, prevents consumers from being misled, and facilitates domestic and international trade by reducing uncertainty and commercial risk.

In 2018–19, we undertook consultation with key stakeholders around the role of FSANZ in the regulatory system in Australia and New Zealand.

Our stakeholders told us that an independent and scientifically credible standards setting agency lies at the core of the food regulatory system. Our scientific capability is critical for enabling the food regulatory system to meet the system objectives to deliver robust standards that ensure safe food.

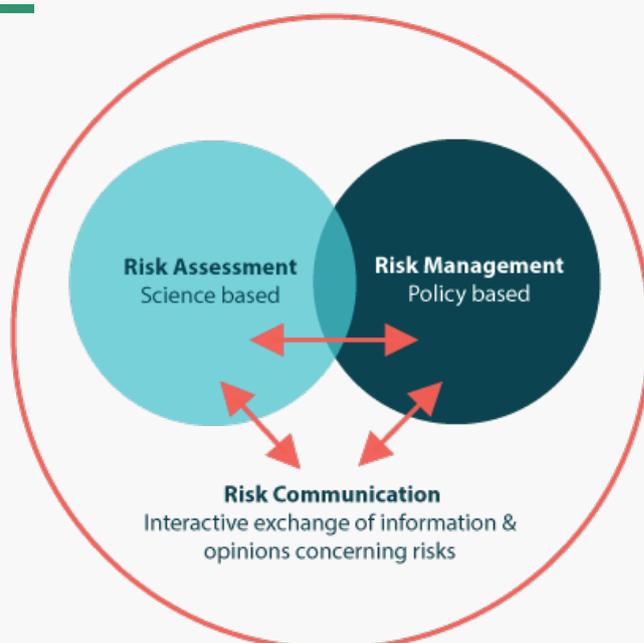
Key to that success is continuing to develop and maintain scientific expertise, managing access to data sources effectively and expanding our strategic partnerships with other organisations such as universities and research institutions.

Ultimately, our science and standards support all consumers every day through enabling all people to make confident food choices, experience food from across the world and enjoy the many other benefits from a safe food supply.

## Regulatory science at FSANZ

The risk analysis framework that we use to support regulatory decision-making is based on the model used by Codex, incorporating risk assessment, risk management and risk communication. This model is refined to ensure the minimum regulatory burdens necessary on the food industry and to achieve a more fit-for-purpose approach to risk analysis.

Regulatory science is a key component of this model. You can read more on our [risk analysis web page](http://www.foodstandards.gov.au/science/riskanalysis/Pages/default.aspx)<sup>4</sup>.



4. <http://www.foodstandards.gov.au/science/riskanalysis/Pages/default.aspx>



Regulatory science is a broad discipline, grounded in a fundamental knowledge of science and regulation. It consists of the application of science to support policy, notably regulatory objectives. It requires integration of a large variety of scientific fields, the development of new methods, and the ability to synthesise information from many sources to quantify risk and support regulatory and other policy objectives.

We have the largest government concentration of specialist food regulatory experts across Australasia with extensive scientific expertise in a range of disciplines and technical capabilities. Our unique combination of people work together and share expert knowledge to solve complex regulatory problems. This diversity, complemented by our organisational structure, allows for impartial, rigorous science on which to base our regulatory decisions.

Our evidence base and scientific data that is specifically applicable to the Australia and New Zealand landscape are key resources. We have trusted and established networks with domestic and international stakeholders that support and inform our work.

In undertaking our work, we carefully prioritise our scientific activities and our investment in the science that is aligned to impact our broader objectives. Our risk assessments are based on the best available scientific evidence, methods and tools to quantify risk, and are proportionate to the risks that are being managed.

The Strategy aims to ensure safe food across Australia and New Zealand through a robust regulatory science framework meeting the needs of all stakeholders (Figure 1).

**Figure 1** FSANZ Regulatory Science Strategy 2019–23 stakeholder map



# Our environment

Our strategic environment is being challenged by rapid change and we need to ensure that our risk assessment priorities, evidence requirements and methodologies can predict and respond to global trends in a dynamic food system. Significant trends and future scenarios that are expected to challenge current approaches include:

Environmental change, changes in population demographics, ethnicity, all-year round access and an increasing diversity of food available to consumers. The centralised production and distribution of food results in an increase in food miles and carbon footprint.

A changing retail supply chain with emphasis on e-commerce, and a move toward real time risk assessment and management decisions being made based on digitised information throughout the food supply chain to facilitate trade.

Increases in the prevalence of diet-related disease such as food allergy, chronic illness associated with overweight and obesity, and foodborne illness due to Salmonella and Campylobacter.

Application of new technologies, such as in the wider area of biotechnology, synthetic biology or nanotechnologies which can introduce new risk factors to the food chain.

Advances in omics tools, whole genome sequencing and other analytical techniques aid in our understanding of epigenetics, gene interaction and metabolic biomarkers for disease and health, providing opportunities for both innovation and more refined safety assessment.

Increased proportion of income that consumers are spending on food and food service, and demand for more information on food matters through digital services in real-time, and a proliferation of consumer advice on food safety issues and healthy food choices from a variety of sources.

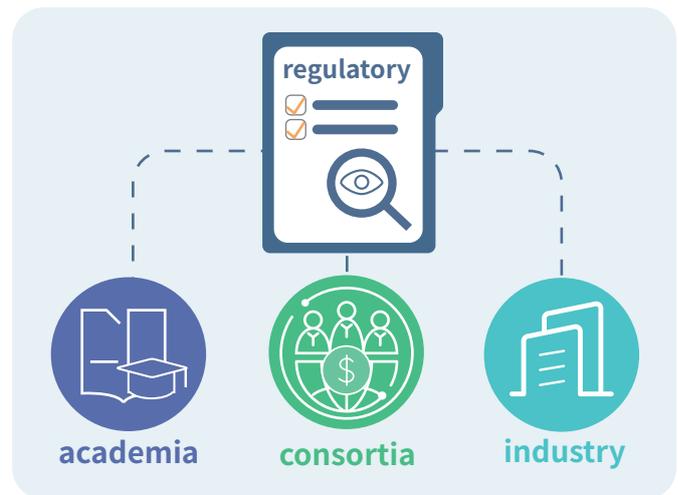
An increased need for more efficient use of resources, arising from escalating demand and limited supply, as well as an increasing demand for additional services including support through greater clarity of regulatory requirements and procedures.

# Expected outcomes

The Strategy provides a clear strategic direction to ensure that FSANZ continues to provide world-class risk assessment advice to inform decision-making and support public health and safety. It aims to position us as a recognised leader in food regulatory science in the region and to ensure that our brand is a guarantee of the highest quality scientific standards.

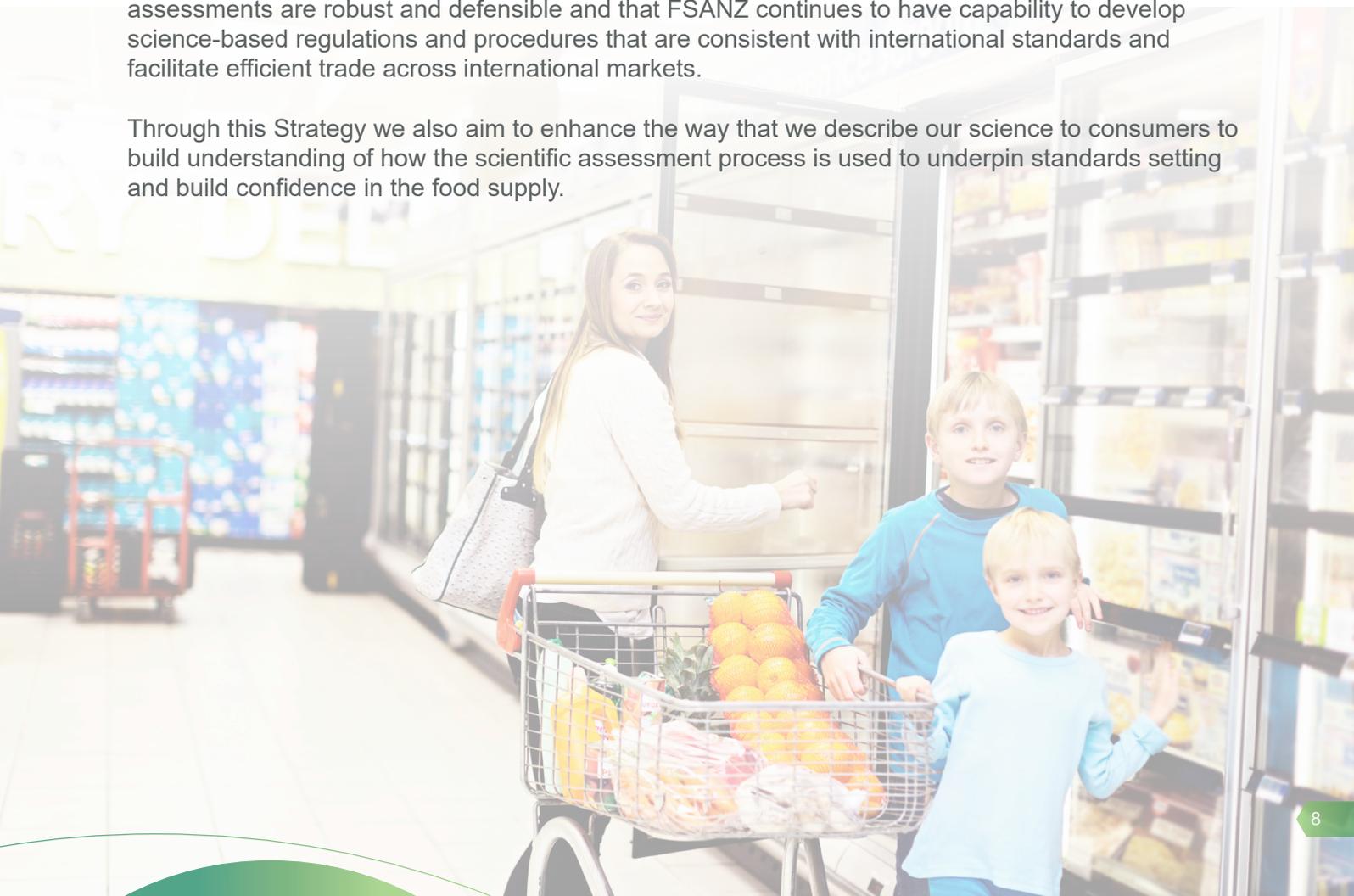
An ambitious focus of the Strategy is to build stronger linkages with academia and industry through consortia to address regulatory problems, and to further leverage from trusted regulatory partners to build upon our scientific capabilities so that we can keep pace with new food risks and risk assessment methodologies.

Our well-developed collaborative relationships will enhance our ability to monitor, predict and target risks and trends and enable timely identification of emerging risks and issues.



The Strategy is particularly important in our resource-constrained environment to ensure our scientific assessments are robust and defensible and that FSANZ continues to have capability to develop science-based regulations and procedures that are consistent with international standards and facilitate efficient trade across international markets.

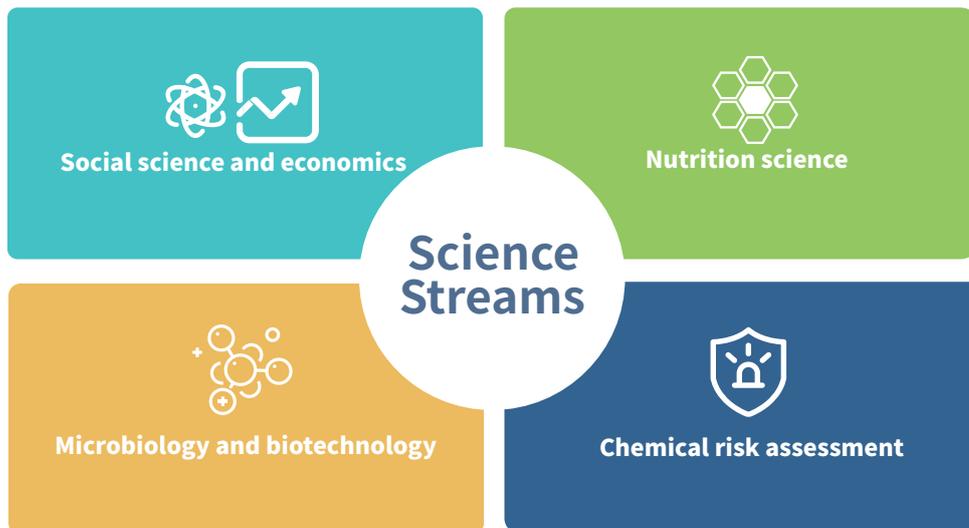
Through this Strategy we also aim to enhance the way that we describe our science to consumers to build understanding of how the scientific assessment process is used to underpin standards setting and build confidence in the food supply.



# Our Science Streams

Our scientific work is typically based around four broad streams of science, illustrated in Figure 2.

Figure 2 Science Streams of the FSANZ Regulatory Science Strategy 2019–23



## Nutrition science

Nutrition science is a well-established discipline influenced by ongoing research in fundamental sciences such as biochemistry and physiology. Knowledge of the multifunctional roles of nutrients in the human body continues to grow and adds to the challenge of undertaking nutrition risk assessments based on the best available evidence.

Our main activities related to nutrition in the context of food standards are assessment of the safety and benefits of vitamins, minerals and other nutritive substances added to food, the safety of novel foods, provision of scientific advice relevant to special population groups such as infants, the scientific substantiation of health claims, assessment of food allergy or intolerance data, and other questions related to nutrition. The addition of nutritive substances to foods continues to attract attention from a wide range of stakeholders.





Safety assessment of nutritive substances follows the well-established risk assessment framework, however the assessment of potential health benefits presents specific challenges, particularly with regard to the level of scientific evidence necessary to conclude that a substance when added to food will provide a clear health benefit. FSANZ will continue to work to address the issue of health benefits under the current strategy.

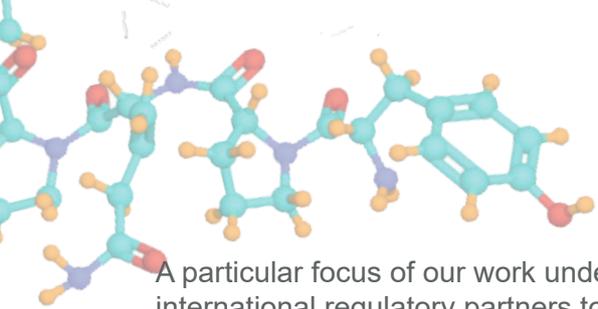
Foods are typically complex mixtures of nutrients that can act synergistically within a food and across combinations of foods, and there is a growing body of research on the health impact of specific dietary patterns. This has led to the concept of nutrition science moving from a reductionist (nutrient-focussed) to a holistic (food/diet-focussed) paradigm. FSANZ will monitor this area with respect to its impact on the risk assessment paradigm in relation to substances added to food.

A key area of concern in Australia and New Zealand is the increase in diet-related contributions to increased prevalence of lifestyle diseases, which are impacting on public health. A current priority of the Australia/New Zealand food regulation system is supporting the public health objectives to reduce chronic disease related to overweight and obesity (Ministerial Priority 2). In this context we have strengthened links with the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to explore how we may work more closely on nutrition science and human health. We also note that the Australian Academy of Science has recently published “Nourishing Australia: A decadal plan for the science of nutrition”. Successful implementation of this plan is anticipated to result in health benefits including reduced burden of chronic diseases from increased nutrition literacy, and greater understanding of cause-and-effect mechanisms linking dietary patterns to health and disease.

Monitoring of nutrients in our food supply is a key activity undertaken by FSANZ that provides the underpinning evidence to support nutrition related public health policy and risk assessments to inform regulatory decisions. Our food composition databases are published as a resource for a wide variety of stakeholders and purposes including standards development, nutrition labelling, research on diet and disease, education and to help consumers make better-informed food choices. This area of nutrition science also provides a fundamental contribution to the development of national nutrition surveys. National nutrition surveys provide detailed, national data on consumption of foods, beverages and, in some cases, dietary supplements. This quantitative data on food consumption is essential to the type of dietary intake assessments we conduct at FSANZ.

## Chemical risk assessment

Chemical risk assessment brings together the disciplines of toxicology, epidemiology, biochemistry, chemistry, food science and exposure assessment to establish the safety of non-nutrient food chemicals such as food additives, processing aids, natural toxins, contaminants, agricultural and veterinary chemicals prior to their introduction to the market place. This work is essential to protect public health by ensuring that the presence or addition of non-nutrient food chemicals to the food supply does not unacceptably increase the risk of diet-related disease, including allergy, or long-term adverse effects such as the incidence of cancer in human populations.



A particular focus of our work under this strategy will be to continue to work with our academic and international regulatory partners to increase the harmonisation of risk assessment methodologies for food chemicals, and to increase transparency and consistency in regulatory decision-making. Where possible we will also seek to build consortia involving academic, research and industry partners to generate evidence to address complex regulatory problems. Increased harmonisation and consistency in scientific decisions will facilitate trade, reduce burden for industry and increase consumers' understanding of chemical food safety issues.

Key to ensuring that the assessments are appropriate to the Australia and New Zealand context is estimating local dietary exposure to food chemicals (or intake of nutrients) based on national food consumption data. Dietary exposure assessment methodologies are developed and agreed internationally and continue to evolve as more sophisticated modelling and data analysis capabilities are realised. FSANZ is recognised as a centre of excellence in this area in Australia and New Zealand. We continue to liaise with our international partners to ensure our procedures are consistent with international best practice, monitor and implement new relevant dietary exposure assessment methodologies, and utilise new or alternate data sets to fill current data gaps.

## Microbiology and biotechnology

This stream includes all risk assessment areas of work relating to microbiology (such as food safety, foodborne illness, the microbiome and associated benefit outcomes of nutritive substances and innovative applications of microbes in food production) and biotechnology, including genetically modified (GM) food and new breeding techniques (NBTs).

Foodborne illness is a critical public health issue. Outbreaks of illness associated with food can have severe consequences for population health and also impact on the economy. FSANZ plays an integral role in the [National Foodborne Illness Reduction Strategy](#)<sup>5</sup> (Ministerial Priority 1) by building the evidence base (collating, assessing and analysing microbiological data) and assessing microbiological risks associated with a range of high-risk commodities. We also provide risk assessment advice on imported food to the Department of Agriculture with the aim of enabling safe food for the Australian population and to help facilitate trade. We will continue to update and improve our assessment methodologies and the microbiological evidence base through a range of collaborations with academia, CSIRO, industry and jurisdictions.



The focus of the biotechnology stream is to progress the regulation of NBTs in light of the current GM standard and make it fit-for-purpose. This work fits squarely under the modernisation agenda of Ministerial Priority 3 as it reflects a forward-thinking food regulatory system. FSANZ has the expertise and authorising environment to take a leading role in the scientific aspects and regulation of NBTs both nationally and internationally.

5. <https://www1.health.gov.au/internet/fr/publishing.nsf/Content/australia-foodborne-illness-reduction-strategy-2018-2021>



## Social science and economics

Regulation exists to encourage or discourage particular behaviour by consumers and those in food industry. Developing regulation, that is both effective in altering behaviours, and efficient in achieving the desired outcome, relies upon a solid evidence base. The social science and economics disciplines apply scientifically rigorous processes to study the behaviour of people and industry. We seek to:

a

understand existing consumer and business behaviour and its drivers

b

predict how a change to the Code will affect consumer and business behaviour

c

identify potential intended and unintended consequences of changes

d

analyse the potential economic and social costs and benefits.

Social science and economics will play a key part in addressing critical public health issues such as lifestyle diseases and foodborne illness. In 2019–23 we will: improve our Cost of Illness modelling for calculating the societal and economic costs of foodborne illness; determine the costs and benefits of potential restrictions on carbohydrate and sugar claims on alcoholic beverages; and consider how labelling of sugars could be improved to enable consumers to make informed choices. We will also work to better integrate our behavioural insights from the social sciences with our economic analysis of impacts. Initiating a regular collection of data on consumers' awareness, knowledge and understanding of food related issues will provide a robust evidence baseline from which to monitor impacts of changes to the food regulatory system.



This work provides a crucial function within FSANZ, as consumer and business behaviour is continuously changing. Thus, the technical expertise of FSANZ staff who explore processes that go beyond the physiological, is crucial in verifying or disproving assumptions about how consumers and businesses will react to regulatory measures. This is a crucial function as it ensures the reliability and relevance of FSANZ's regulations.

## The importance of scientific data

Scientific data underpins all aspects of the FSANZ evidence-based approach and is transverse across all of our work. It is essential that FSANZ is able to generate, discover and appropriately access the data required to support decision-making, and that we have the capability to appropriately analyse, synthesise and interpret these data. A central repository of information and assessment tools for easy access by staff to build and maintain expertise are essential in the modern environment.

The Australian government recognises the importance of sharing data to increase its value through efficient collection, use and re-use and is putting in place open data policies to facilitate safe release and sharing of datasets where appropriate. The benefits of sharing data between organisations are being realised. We need to be able to facilitate and maximise the flow of data between ourselves and our stakeholders to not only enable a swift response to incidents but also to help predict and evaluate risks from a whole of system perspective.

We have recognised the importance of data and data science across all science streams, through the development of a FSANZ Strategic Plan for Scientific Data. To date the focus has been on cataloguing the data holdings of FSANZ and establishing processes for consistently managing our existing and new data holdings. As good data management practices become embedded in our business, our focus is now shifting to building relationships and improving capabilities that allow us to capitalise on the benefits of accessing, sharing and using a broad range of quality data. This recognises that we have limited resources or authority to generate relevant scientific data ourselves and that we must position ourselves as a trusted custodian of other people’s data and information.

## Meeting the challenges: Our Strategic Objectives

FSANZ will deliver the Strategy through five interdependent strategic objectives that will provide the focus for its scientific activities over the coming four years (Figure 3).

Figure 3

Strategic Objectives of the FSANZ Regulatory Science Strategy 2019–23



## Objective 1: Outstanding regulatory scientific capability

### Key outcomes of this objective

- Highly trained scientific and technical staff who have the skills to grow and innovate, are well engaged and adaptable to move across the organisation
- Effective use of resources through leveraging complementary expertise from academic and research sources and domestic and international partners
- FSANZ will be seen as an attractive place to work and is highly regarded for its integrated approach to the training, development and career progression of its people
- Our skills are aligned with broader government initiatives and ensure FSANZ continues to have the capability to develop science based regulations and procedures.

The field of regulatory science is broad, requiring knowledge of both science and regulation and requires the integration of a large variety of scientific disciplines including chemistry, toxicology, nutrition, microbiology, modelling, biotechnology, food science and technology, social science and economics. It extends beyond just developing and applying methods to assess risk to navigating the interface between science, society and the economy, requiring a working knowledge of government legislation, regulations and industry standards, among others (see Figure 4).

While regulatory scientists typically enter the workforce highly skilled in their discipline, a number of studies have identified that further training is required to fully develop the skill sets needed to meet their unique set of functions, roles and responsibilities. Efficient training and development processes, underpinned by effective learning strategies that are focused directly on critical competencies for assessing food safety and public health issues are required as a part of FSANZ's People Strategy. Other government initiatives are also considering broader workforce issues for regulatory scientists and FSANZ is a key participant in this process.

In addition, our current resource-constrained environment means that we need to be innovative and strive to do more with less. Unable to readily increase in-house capacity, we recognise the importance of leveraging capabilities from external sources whilst maintaining sight of business needs and priorities. Therefore, it is essential that FSANZ invests strategically in the development and maintenance of its people and skills, infrastructure and our key scientific partnerships and collaborations. An example of this is our long-standing FSANZ [scientific fellows program](http://www.foodstandards.gov.au/science/expertise/fellows/Pages/default.aspx)<sup>6</sup>.

6. <http://www.foodstandards.gov.au/science/expertise/fellows/Pages/default.aspx>

**Figure 4** Competencies for regulatory scientists



**Actions to achieve this objective:**

- Build and maintain scientific and technical expertise in our regulatory scientists through training and development processes focused directly on critical competencies (people and skills) under our People Strategy. This includes participating in broader government initiatives to assess the skills required for regulatory scientists, current workforce issues and emerging concerns
- Active engagement with key scientific and technical experts in research organisations and academia, and building and enhancing our external programs to complement in-house capabilities.

## Objective 2: Modern scientific evidence base and application of best practice tools and methods

### Key outcomes of this objective

- FSANZ accesses and incorporates the best available scientific evidence to support regulatory decision-making
- We apply modern risk assessment tools and methods to support risk-based approaches consistent with international best practice
- FSANZ can better monitor, predict and target risks and scientific trends
- Data management processes, systems, tools and capabilities ensure scientific data and information are appropriately managed and accessible across the organisation and to our external stakeholders to make well informed decisions and improve performance
- FSANZ is a trusted custodian of other organisations' scientific data

FSANZ will continue to strengthen the scientific evidence base for risk assessment through a number of processes including food chemical and composition surveys, and developing tools and applying methods suitable for assessing risks associated with the food chain. Our Silo and Harvest databases represent innovative data storage and analysis tools and systems for managing our scientific evidence base, and will continue to be utilised and developed.

We will continue to support the development of new tools to undertake risk assessments of nutrients and non-nutrient chemicals in food. We will also work to improve the consistency of implementation of modern risk assessment methods established by organisations with a risk assessment mandate at national and supranational levels.

For example, for chemical risk assessment, methods include further work on dose response assessments and methods to support extrapolation of results in animals to human populations. In addition, dietary exposure assessment methods are continuing to evolve internationally in areas such as veterinary drugs, chemical mixtures and shorter than lifetime exposures. New dietary exposure assessment methodologies and revised international guidance documents will continue to be reviewed and new methods implemented by FSANZ as required. A key focus in the nutrition area will be further articulating scientific requirements to support an assessment of risks and benefits.

We recognise that basing our scientific assessments on robust scientific data and evidence is central to our credibility. FSANZ is often dependent on the willingness of third parties to voluntarily provide the relevant data and information on which our assessments are based. How well we manage, protect and use our and others' scientific data is essential for building trust with our partners, an important first step in building confidence in and facilitating ongoing data sharing arrangements.

Our Governance Framework describes how major indicators of good governance are addressed, of particular importance if FSANZ is to become a trusted custodian of other people's data. Trust and confidence in FSANZ's ability to keep their classified or sensitive information confidential is therefore critical to FSANZ's ability to perform its role.

Our Strategic Plan for Scientific Data aims to strengthen scientific data management processes, systems, tools and capabilities to ensure relevant data and information are appropriately managed and are accessible across the organisation and to our external stakeholders.

### **Actions to achieve this objective:**

- Strengthen the scientific evidence for risk assessments, including ongoing surveillance of the food supply
- Apply first-class processes and systems to manage and share our scientific data holdings, including ongoing development of food composition databases, through our Strategic Plan for Scientific Data
- Seek opportunities to harmonise internationally, and support the development of modern risk assessment tools and methodologies at the national and supranational level.



## Objective 3: Work with and leverage from our domestic and international regulatory partners

### Key outcomes of this objective

- Timely ability to monitor and respond to emerging scientific regulatory risks and issues
- FSANZ accesses a range of views and ideas across a large group of regulators
- Alignment of international requirements, and consistent approaches to regulatory risk assessment and messaging from government and regulatory agencies internationally
- FSANZ are recognised experts among global food standards networks

FSANZ plays an active role in the development of a national and international risk assessment community. We engage with domestic and international regulatory authorities and participate in international initiatives. Increasing cooperation with core agencies promotes high standards in risk assessment, supports a harmonised approach and harnesses the best expertise available to provide solutions to global challenges.

Successful collaborations with our national and international counterparts are critical for ensuring FSANZ keeps abreast of advances and emerging issues and maintains our world-class methods for undertaking scientific risk assessment, according to international best practice. This is of particular importance in our current environment which provides scarce funding to develop and implement successful regulatory science research efforts.

Our collaboration with international decision makers also supports our relevance on global platforms and increases our influence in the setting of international standards. FSANZ currently influences standards setting internationally through providing Australian leadership in a number of international fora, for example through Codex committees, ultimately helping keep Australia's trade pathways open for the food sector.

### Actions to achieve this objective:

- Work collaboratively with, and leverage from our regulatory partners, with a focus on areas of mutual benefit
- Contribute FSANZ's expertise and leadership to regional and global food standards networks.



## Objective 4: Link and partner with key contributors such as academia, research institutions and industry

### Key outcomes of this objective

- Timely ability to monitor and respond to emerging scientific regulatory risks and issues
- Access to a broader pool of external scientific data, intelligence and capability to enhance our science
- Improved interactions supporting the training and career progression of FSANZ regulatory scientists
- FSANZ has established consortia with academia and industry
- Collaborative resolution of complex regulatory science issues drawing on the expertise and resources of academia, research organisations and industry

FSANZ maximises our access to, and use of, external experts to provide advice on scientific issues for which we do not have the specific technical or scientific expertise in-house. These experts may be from research agencies, universities and other organisations.

Working with external experts helps to build our knowledge, improves our agility and responsiveness in an environment with shrinking resources and facilitates a greater understanding and consensus on the science underpinning our work.

At present, experts may help us by collaborating on projects, or they can be members of [expert advisory groups](#)<sup>7</sup> established by FSANZ to provide advice on specific scientific issues such as allergy and food intolerance, health claims, nanotechnologies, new breeding techniques and social sciences and economics. We also have a network of [FSANZ fellows](#)<sup>8</sup> to provide us with objective expert advice in a range of disciplines and to peer review our work. This program helps to develop academic links and networks, as well to identify emerging scientific risks and regulatory science issues.

Each year, we host a number of students from universities on scientific projects that help inform our work as a part of our student research program.

7. <http://www.foodstandards.gov.au/science/expertise/Pages/Scientific-advisory-groups-.aspx>

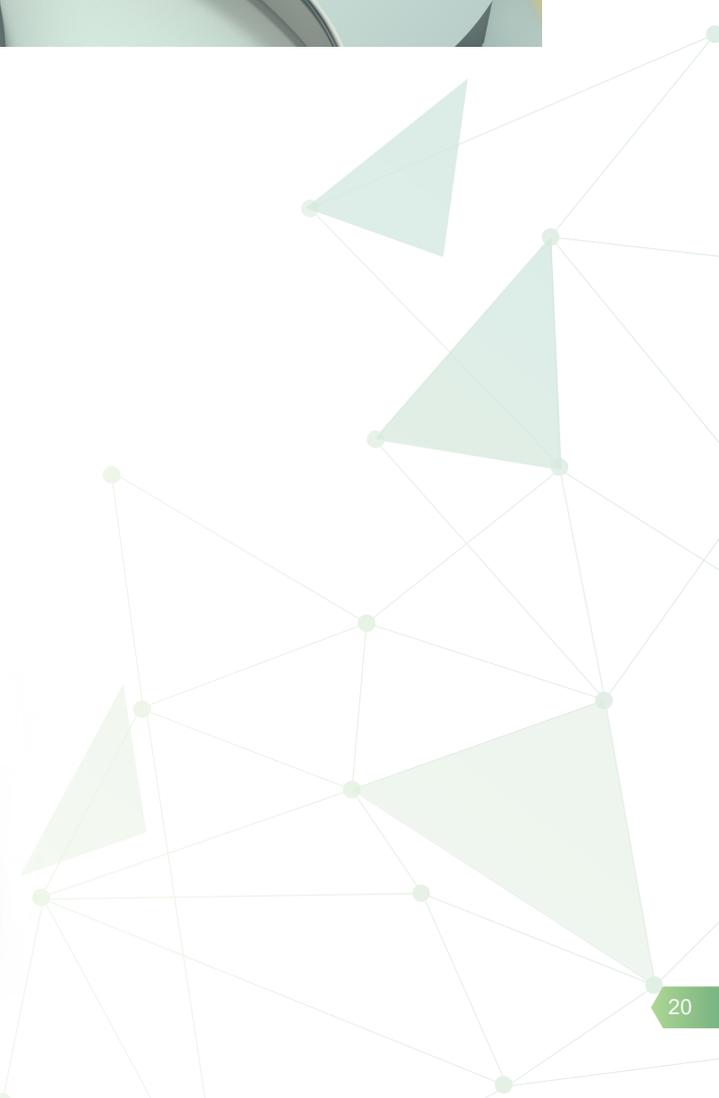
8. <http://www.foodstandards.gov.au/science/expertise/fellows/Pages/default.aspx>

In addition to our usual processes, an ambitious focus of the Strategy will be to actively seek opportunities for collaboration considering model frameworks that have been employed successfully nationally and internationally. These models are aimed at fostering high quality research to solve complex regulatory problems through collaborative research partnerships involving public authorities, research centres, academia and industry. One such example that we are leading together with CSIRO and the New Zealand Food Safety Science and Research Centre is to promote the need for and work towards establishing a nationally coordinated centre for food safety research.

Other sources of information such as that provided by industry can also increase our awareness of emerging scientific risks and trends and comprise an important additional source of analytical data. In particular, these data can support our activities in nutrition science, chemical safety and microbiology.

### Actions to achieve this objective:

- Deepen our partner relationships, including those with academia, industry and research organisations to share scientific knowledge, advice and information
- Seek opportunities and explore model frameworks to engage academia, research organisations and industry to resolve regulatory science issues to a mutual benefit.



## Objective 5: Communicate our science clearly and simply

### Key outcomes of this objective

- Our science communication, including risk assessment reports, meet the needs and is understood by our stakeholders
- Increased transparency in our scientific assessments including clear communication of uncertainty

The information available to consumers on food safety and nutrition is growing rapidly. We live in a data-rich, opinion-rich environment and society and consumers today have rising expectations for information about food. Technological changes and the growth in internet use have led to a proliferation of information available to consumers, and consumers are now looking to who they can trust.

We need to ensure our science is communicated in a meaningful way and meets the increasing expectations of our stakeholders. Scientific and technical information can be complicated and confusing, and it is a constant challenge to provide information that meets the needs of both the scientific and non-scientific community and builds confidence in the safety of the food supply.

To address these changes, we will consider how we communicate our science to meet the needs of all of our stakeholders, in particular how we describe uncertainty in our risk assessments and what assumptions have been made. Another focus will be the utility and capabilities of new multimedia tools to disseminate information that is easy to understand for scientists and non-scientists alike.

### Actions to achieve this objective:

- Deliver current and relevant scientific information on our website using modern tools that clearly explain our science<sup>9</sup> and communicates uncertainty, under our Communications and Stakeholder Engagement Strategy
- Increase our engagement in educating and training our stakeholders about our science.

9. Example available on the FSANZ website at:  
<http://www.foodstandards.gov.au/consumer/chemicals/Pages/default.aspx>

## Strategic delivery and evaluation

The FSANZ Regulatory Science Strategy positions FSANZ as a leader of regulatory science in our region and provides a solid framework for all of FSANZ's scientific activities. Goals are set for each strategic objective, and associated planning, implementation and reporting mechanisms encourage staff engagement with our strategic story, build cohesion across our organisation and aligns work programs to our priorities.

Regulatory science is difficult to evaluate objectively, as it is not assessed by traditional scientific measures such as statistical analyses or peer-reviewed literature. Performance measures for our regulatory science are identified in our Corporate Plan and will be reported in the FSANZ Annual Report. Our success will be realised through developing evidence and science based standards. This will in turn help to deliver safe food across Australia and New Zealand.

# Food Standards Australia New Zealand

## Regulatory Science Strategy 2019–23

