ALFRED NOBEL UNIVERSITY

DEPARTMENT OF GLOBAL ECONOMICS

Bachelor's Thesis

«Development and ways of implementation of the international investment project "Opening a Cafe" in New Zealand»

Forth year student, group _IER-16a___

in specialty 292 "International economic relations"

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ALFRED NOBEL UNIVERSITY
DEPARTMENT OF GLOBAL ECONOMICS

First (bachelor) level
Specialty 292 International economic relations

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TASKS

for qualification work

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Student's last name, name

1. Topic ___«Development and ways of implementation of the international investment project "Opening a Cafe" in New Zealand»_____
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__ Development of International Investment Project «Opening Cafe in New Zealand»
__Economy of New Zealand
__Is it profitable to start a business in New Zealand
__NPV and PPP indicators

6. Date of issue of the assignment _____
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no	Name of the stages of qualification work	The deadline for the work stages	
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Student _____ __Povalinskaya Y.F.____
signature *last name, initials*

Supervisor _____ _____
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SUMMARY

Povalinskaya Y.F. «Development and ways of implementation of the international investment project "Opening a Cafe" in New Zealand».

The paper examines the current state and trends of the New Zealand economy over the past fifteen years. It is examined that New Zealand is one of the best countries in the world to start business in, showing high rates within all the indicators. At the same time, the country is not experiencing labour shortage or any economical fluctuations.

All mentioned above creates favourable conditions for the organization of small business enterprises, since possibility of investment being paid back is extremely high. An international investment project to create a cafe in Auckland was developed at the expense of an investor from Ukraine. The calculations of the need for investment resources are given, the organizational and legal form of the created enterprise is substantiated, as well as the calculations of the main indicators that made it possible to evaluate the investment attractiveness of the proposed project.

Key words: *New Zealand, investment climate of New Zealand, NPV, payback period of the investment project, cafe in New Zealand*

АННОТАЦІЯ

Повалінська Я.Ф. «Розробка та шляхи реалізації міжнародного інвестиційного проекту «Відкриття кафе» у Новій Зеландії».

У дипломній праці досліджено сучасний стан та тенденції економіки Нової Зеландії за останні п’ятнадцять років. Досліджено, що Нова Зеландія - одна з найкращих країн світу, яка розпочала свою діяльність, демонструючи високі показники за всіма показниками. У той же час країна не відчуває дефіциту робочої сили або будь-яких економічних коливань.

Все вищесказане створює сприятливі умови для організації підприємств малого бізнесу, оскільки можливість повернення інвестицій надзвичайно велика. Міжнародний інвестиційний проект створення кафе в Окленді був розроблений за рахунок інвестора з України. Наведено розрахунки потреби в інвестиційних ресурсах, обґрунтовано організаційно-правову форму створеного підприємства, а також розрахунки основних показників, які дали змогу оцінити інвестиційну привабливість запропонованого проекту.

Ключові слова: *Нова Зеландія, інвестиційний клімат Нової Зеландії, NPV, період окупності інвестиційного проекту, кафе у Новій Зеландії*

CONTENT

INTRODUCTION

The **aim** of the project is to estimate an investment opportunity for a certain Ukrainian company involved in restaurant business. The company “GoodFood Ltd.” has more than seven profitable restaurants in Ukraine. The standard of all existing restaurant are following: fresh ingredients, more than 10 tables, professional staff. The company has gained more than retained earnings, and now it wants get involved into new project, and majority of shareholders agreed that it must be international investment project. On the general meeting they agreed on following requirements: not restaurant, but café; more of fast-food styled restaurant; if possible – sea-view; not less than five indoor table. The name of the project is still unclear, however, it was proposed to use something easy to remember, like “The Shore”.

The actuality of the research paper lies in the fact that capital investments, as well as any other important event, cannot take place without first thinking about the smallest details of the upcoming event, as well as the possible difficulties and obstacles in the way. That is why the relevance of the investment project is obvious.

The purpose of investment is to consider the option of opening a new company, the development of new products, the introduction of industrial innovations. And the feature - receiving income after a certain, sometimes long period of time.

The main objectives are assessment of the economy of New Zealand, identifying its strengths and weaknesses; highlighting major economic indexes and evaluation of New Zealand’s attractiveness for investment. Also, objectives are to conduct calculation and define, whether project is potentially profitable or not and is it worthy to even consider it as an option for investment.

The practical significance of drawing up an investment project for the work of the cafe is the possibility of applying it in practice for the organization of an individual enterprise to provide services to the public.

The purpose of the course work is to identify the expediency of potential investments in the chosen sphere of activity.

Methods such as analysis, synthesis, classification of information, bibliographic analysis, economic computations were used in order to disclose the topic of work. Special methods were: vertical and horizontal analysis of financial statements, statistical and dynamic data analysis.

The international investment project should not exceed NZD 1 000 000 and should meet the requirement for payback period to be no longer than three years. While developing the description of the international investment project it is important to remember that it must be complete and it also has to estimate all economic and political tendencies in the desirable country, including: its tax policy, sufficient calculations of required expenditures and not concentrate on maximum possible output, so that the international investment project provides a ready-to-go business-plan for the investors.

In this project economy of New Zealand will be discussed critically. Main features and benefits of it, as well as main economical macro and micro indicators will be used to fully assess it. Furthermore, tax and legislation aspects od the country's development are going to be considered, during development of the project, since it is almost impossible to develop an investment project without deep study of the laws of the country of choice. It all will be necessary, while completing Section 3 – Development of the International Investment Project.

In this project the chosen country is New Zealand – is an industrial country with a developed economy. It is the largest country in Oceania. The tourism industry and related industries are becoming more and more important elements of the New Zealand economy every year. The location of the country and the beauty of its nature, combined with a high level of service, the convenience of transport structures and the development of active programs to attract tourists to the country, are favourable. Since the idea of the project is to create a family-type café with sea-view, New Zealand is going to be Perfect. High-quality food and services, satisfied clients are the main goals of particular project, therefore, it requires well-trained stuff, trustworthy suppliers and outstanding place with beautiful view.

SECTION 1. NEW ZEALAND ECONOMY: THE CURRENT SITUATION, DEVELOPMENT TRENDS AND MAJOR PROBLEMS

In world practice, there are many recognized ratings of investment attractiveness, each of which is focused on a certain circle of investors. Currently, comprehensive rating studies of the investment attractiveness of the countries of the world are carried out by leading world agencies and banks. The most famous of them: Moody's, Standard & Poor's, Fitch IBCA, DCR, the World Bank, as well as the agency of the magazine Euromoney. Among other things, there are three most characteristic approaches for assessing the country's investment climate: factor (based on assessing the dynamics of GDP, national income and production volumes, proportions of accumulation and consumption, it is used exclusively for global assessments of the investment climate in the state), risk (based on the assessment of the totality of factors affecting the investment climate, such as political, social, economic, environmental, criminal, financial, resource and labour, production, innovation, infrastructural, consumer, institutional, legislative factors), narrowed (the components of this approach are two indicators: investment potential and investment risks or investment risks and socio-economic potential).

1.1 NEW ZEALAND ECONOMY OVERVIEW

You can register a company in New Zealand in almost 15 minutes, and without leaving your personal computer. All that remains is to issue it to the tax service. What can also be done either by telephone or through the World Wide Web. For a small business, you can use your car and home, all costs will certainly be written off to you (An Overview and Geography of New Zealand, 2018). But even under such truly magnificent conditions, the market “evolution” in New Zealand does not stop even for a second. The country is making new efforts in the policy of actively attracting foreign investors.

So, on April 23, New Zealand's Minister of Revenue (at government fees) Peter Dunn issued a communiqué stating that the government plans to change the national system of Minimizing value added tax (An Overview and Geography of New Zealand, 2018). The purpose of the innovations is to allow non-resident companies doing business in the country to return VAT payments. According to the Minister, the tax system of the state should impose the same requirements on all enterprises doing business in the country, regardless of their resident status (New Zealand Economic Snapshot - OECD, n.d.). However, in accordance with the rules of the current legislation, non-resident companies cannot demand a refund of paid VAT, as New Zealand enterprises do.

Therefore, the New Zealand government plans to introduce new definitions at the zero VAT tax rate, as well as create a special system for registering non-resident companies to pay and refund VAT (An Overview and Geography of New Zealand, 2020).

In order to attract foreign investors, a simplified migration scheme exists in the country. True, the acquisition of real estate in New Zealand has nothing to do with automatically obtaining a residence permit and citizenship (New Zealand Economic Snapshot - OECD, n.d.). For this, it is necessary to have a business in the country that has been successfully operating for several years. In addition, recently, to further attract investors, the minimum amount of investments in the country's economy was reduced by half (to $ 10 million), which gives the right to permanent residence without passing an English exam and taking into account work experience (New Zealand Economic Snapshot - OECD, n.d.).

Low unemployment, together with economic growth, creates a favourable investment climate.

Due to ineffective fiscal policies, many countries faced debt problems during the crisis, which significantly worsened the investment climate.

Nevertheless, New Zealand still had to pay for its determination and impudence in matters of market transformations at low rates of growth in the first decade of reforms, however, in the 21st century, the country took the lead in

OECD countries in terms of economic growth (for example, it almost doubled since the beginning of the century) (New Zealand GDP | 1960-2019 Data | 2020-2022 Forecast | Historical | Chart | News, 2020).

Source: WorldBank.com

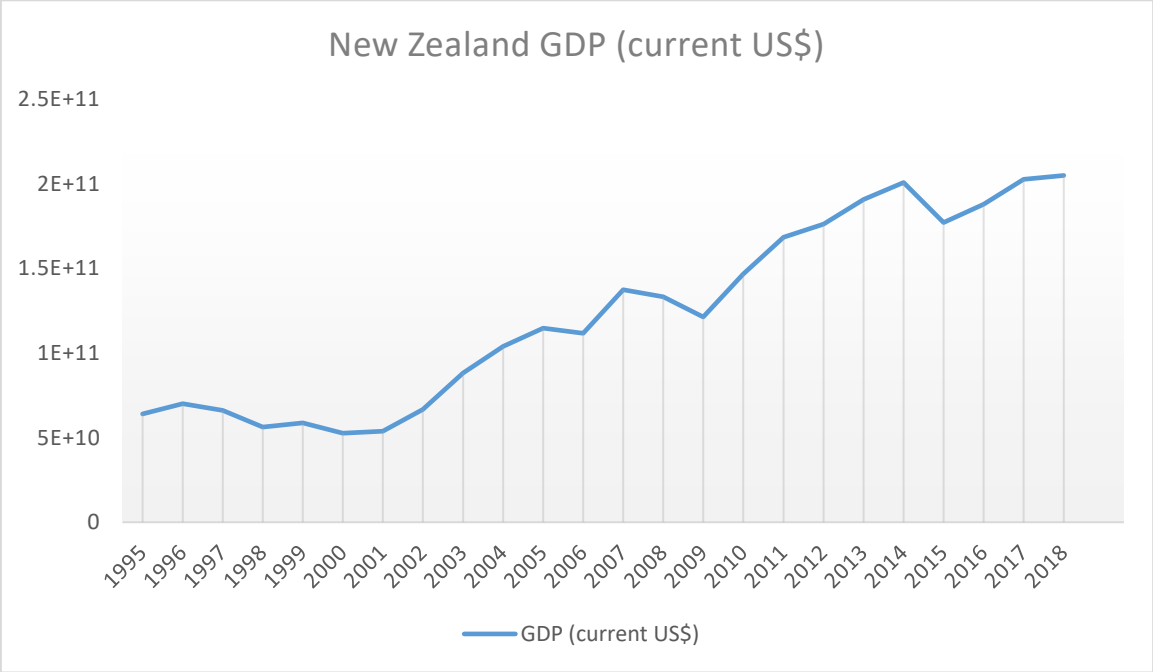


Fig.1.1.1 New Zealand GDP (current US$)

It is important to remember that inflation can serve as a cover for demonstrating high and growing profits. While the company is not developing or its sales are falling, inflation raises the nominal sales figures, and it seems that the company is developing (New Zealand Inflation Rate | 1918-2020 Data | 2021-2022 Forecast | Calendar, 2020).

Inflation distorts the results of the analysis of the effectiveness of long-term investments. The main reason is that depreciation is calculated based on the initial cost of the object, and not its value when replacing.

Source: WorldBank.com

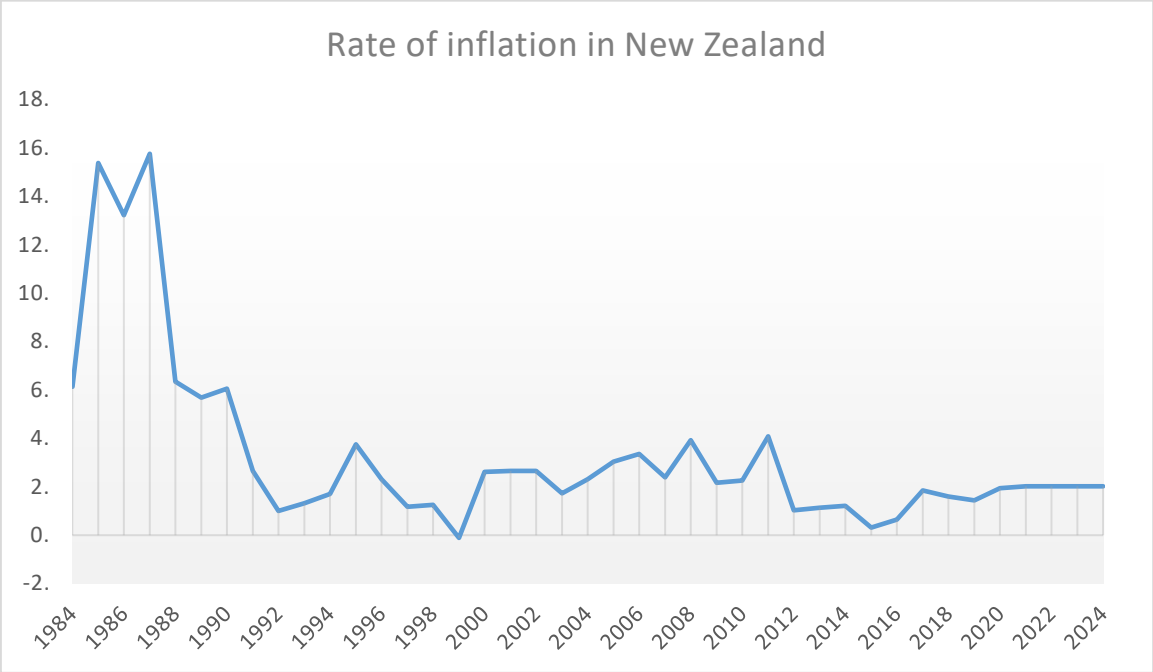


Fig. 1.1.2 Rate of inflation in New Zealand

The unemployment rate determines the percentage of the total workforce that is unemployed but actively seeking work and willing to work in New Zealand. A high percentage indicates weakness in the labour market. A low percentage is a positive indicator for the New Zealand labour market and should be seen as positive.

Source: WorldBank.coь

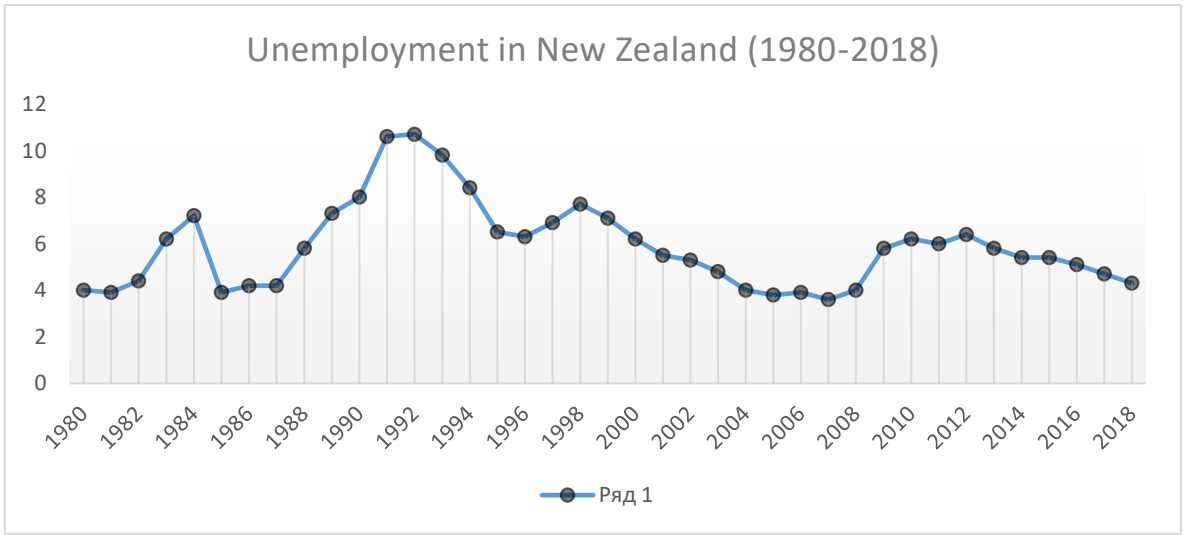


Fig. 1.1.3 Unemployment in New Zealand

The unemployment in New Zealand tends to decline and that's indicator of good and stable economy. (New Zealand Unemployment Rate | 1985-2020 Data | 2021-2022 Forecast | Calendar, 2020).

Additionally, I've decided to take into consideration following factors to fully evaluate attractiveness of investment climate of New Zealand. Those are: tax system, Fair Trade Act, lending procedures, Budget Responsibility act and openness of state foe new businesses.

1.2 DOING BUSINESS 2020, NEW ZEALAND

Accordingly to the annually conducted by the World Bank Group research, New Zealand is the easiest country to be doing business in (New Zealand, Doing Business 2020, 2020).

The overall procedure of applying and starting a new business doesn't require more than a day. The cost is approximately NZD 120. (New Zealand, Doing Business 2020, 2020)

Source: DoingBusiness.com

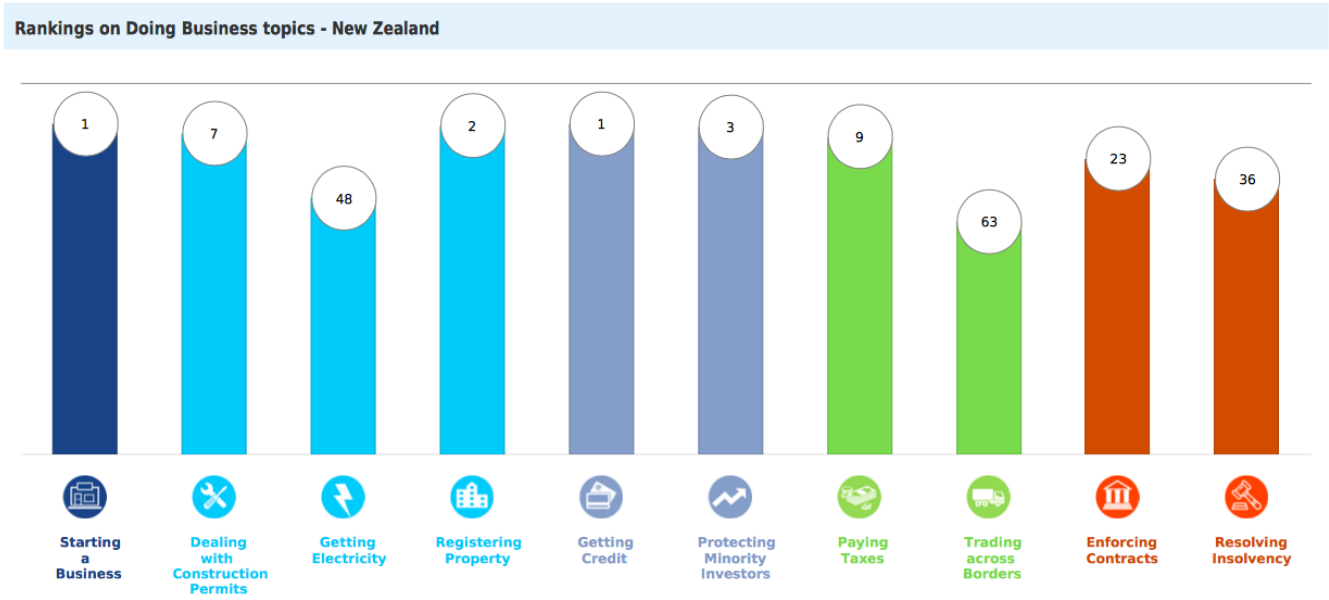


Fig. 1.2.1 Doing Business Indicators, New Zealand

It is a bit longer to deal with Construction Permits, because it might take up to 93 days to get all the work done. To get water supply you need to wait for 23 days on average and it will cost around NZD 13,500. (New Zealand, Doing Business 2020, 2020). Also, if it is needed to build everything from scratch it is needed to obtain building consent from District Council on the approximate price of NZD 43,000. (New Zealand, Doing Business 2020, 2020). There are some additional expenses which are important to be reviewed in case of necessity to build a new construction. Also it is not that easy to get electricity, because it might take up to 58 calendar days and NZD 39,740 (61% of average income) (New Zealand, Doing Business 2020, 2020). On the other hand, it is really easy to register property fast (3,5 days maximum) and at minimal price (0.1% of income per capita). (New Zealand, Doing Business 2020, 2020)

New Zealand is only in leading positions with two indicators – Getting Credit and Protecting Minority investors. Additionally, tax payment system is transparent and convenient. (New Zealand, Doing Business 2020, 2020).

The worst situation in New Zealand is with Trading across Borders, however, I believe it's due to the geographical position of the country, because all the procedures connected with documents are completed efficiently. (New Zealand, Doing Business 2020, 2020).

Two last but not less important criteria are Enforcing Contracts and Resolving Insolvency.

Both of them are linked to legislation system and it indicated that New Zealand is not best country to deal with different kinds of disputes due to the long-term resolving procedures and quite a high cost of such an actions. (New Zealand, Doing Business 2020, 2020).

Further, some macroeconomic indicators will be considered, such as: GDP, rate of inflation, rate of unemployment and FDI.

1.3 TAX SYSTEM OF NEW ZEALAND

Large-scale reforms that turned New Zealand into one of the countries with the most open economies in the world began in 1984 (Taxes, 2020). Then the conservative government was replaced by the Labourites, led by Treasury Secretary Roger Douglas (it was under his leadership that such important transformations began, later this period 1984-1987 would be called "rogeronomics") (Taxes, 2020).

The mid-1980s turned out to be difficult for New Zealand (Taxes, 2020). Structural imbalances in the country's economy along with the recession and global energy and commodity crises of the late 1970s and early 1980s led to high inflation, a huge state budget deficit (8% of GDP) and a significant current account deficit (9% of GDP) (Taxes, 2020). All these indicators literally “shouted” about the need for economic restructuring. Over the next 20 years, New Zealand has implemented one of the most ambitious and systemic market reforms. According to the depth of transformations, there was no analogue to reform in the world at that time in the nature of economic relations. In many ways, the country had to try on the role of a pioneer. In particular, New Zealanders were among the first to pursue an inflation targeting policy. Inflation targeting is a monetary policy regime based on the use of inflation forecast as the final target landmark.

As a result, with an increase in income along with an increase in inflation, the tax base increases, since the constraining factor - depreciation charges - remains constant. As a result, real cash flows lag behind inflation.

In investment practice, one constantly has to reckon with the adjusting factor of inflation, which over time depreciates the value of cash. This is due to the fact that inflationary growth in the average price index causes a corresponding decrease in the purchasing power of money.

What is current situation with taxes in New Zealand?

New Zealand, as a full member of the Organization for Economic Co-operation and Development (OECD), cannot boast of low tax rates (Money & Taxes in New Zealand | New Zealand Now, 2020).

True, while the tax system of the country is extremely simple to implement. All taxes are divided into private and corporate;

the main ones are:

- private income tax for individuals (progressive scale with a rate of 12.5 to 33%) (Money & Taxes in New Zealand | New Zealand Now, 2020);

business taxes:

- indirect tax GST;
- Good and Services Tax (flat rate of 15%) (Money & Taxes in New Zealand | New Zealand Now, 2020);
- income tax (flat rate of 28%) (Money & Taxes in New Zealand | New Zealand Now, 2020);
- import duties.

Special is the tax on income of a trust taxed at a rate of 33%. Trust income arising from a source outside New Zealand is exempt from tax (Money & Taxes in New Zealand | New Zealand Now, 2020).

Among the distinctive features of New Zealand's tax system are the following:

- no tax on capital gains;
- there is no inheritance tax;
- no local or state taxes, other than property rates paid to local authorities;

- there is no tax on wages;
- there are no social security contributions;
- there is no health care tax, except for the minimum compensation for damages caused by accident.

1.4 LEGISLATION

There are several main laws, that are needed to regulate markets in New Zealand. “Fair Trading Act” (1986) is one of the most important and main features will be described further. The main goal of the law is to develop competition in the markets of New Zealand. To achieve this goal, the law:

• prohibits mergers and acquisitions, which can significantly reduce competition; (Fair Trading Act 1986 No 121 (as at 13 January 2020), Public Act Contents – New Zealand Legislation, 2020)

• prohibits the implementation of barrage trade policies, such as price fixing and abuse of market power; (Fair Trading Act 1986 No 121 (as at 13 January 2020), Public Act Contents – New Zealand Legislation, 2020)

• provides for the introduction of price controls in markets where competition is limited. (Fair Trading Act 1986 No 121 (as at 13 January 2020), Public Act Contents – New Zealand Legislation, 2020)

As a standard, New Zealand banks “lend” to entrepreneurs (regardless of the place of residence) on credit from 40 to 60% of the value of the business. The exact size of the loan will depend on a number of things, such as the type of company, its cash flows, history and even the experience of the businessman himself. In addition, the presence or absence of factories, other movable and immovable property, as well as the assessment of goodwill will play a role in determining how much as a result, the entrepreneur will be able to borrow. (Bloomberg - Are you a robot?, 2020). The average rate on commercial loans at the largest banks in New Zealand (such as ANZ New Zealand, the largest financial

group in terms of assets and profits, and one of the largest New Zealand banks with branches throughout the country ASB) ranges from 7 to 10% (Bloomberg - Are you a robot?, 2020).

The New Zealand Fiscal Responsibility Act 1994 sets standards for fiscal transparency, holding governments accountable for fiscal performance (The Fiscal Responsibility Act: A Stocktake | Scoop News, 2020). The document defines five principles of public finance management: reduction of public debt to target levels; the requirement to maintain a medium-term operating balance; maintaining the minimum necessary level of net worth of state assets; fiscal risk management; maintaining a predictable and stable level of tax rates (The Fiscal Responsibility Act: A Stocktake | Scoop News, 2020). Interestingly, government bodies are allowed to temporarily deviate from these principles.

The openness and high efficiency of the state apparatus is another distinguishing feature of New Zealand. Today, monitoring the activities of senior government officials, as in the US and Canada, is carried out by an organization independent of the government - the Civil Service Commission (Examples of Corruption in New Zealand - Transparency International New Zealand, 2019). Actually, the assessment of personalities is carried out by the head of the commission, which has the right to regulate the issues of remuneration of employees of senior positions. For example, he can award a bonus to a civil servant based on the results of his activities in the amount of more than 15% of the salary, if he considers that he deserves it (Money & Taxes in New Zealand | New Zealand Now, 2020).

There is no corruption in New Zealand; English law is at the core of the legal system and banking secrecy is strictly respected (Examples of Corruption in New Zealand - Transparency International New Zealand, 2019). The country has a relatively small territory and a small population (about 4.3 million, this is even less than the population of Singapore - 4.5 million) (Examples of Corruption in New

Zealand - Transparency International New Zealand, 2019). Which, of course, facilitates the implementation of effective administrative functions under liberal policy conditions.

After assessing investment climate of New Zealand it is possible I'd like to introduce my business ides for international investment project. I've decided, that services sector is a quite huge in New Zealand, so my decision was pretty simple – to establish a café there. Furthermore, it is important to mention that I'm not going to deal with construction, via developing a project, because I'm going to use rented especially for business space. To be more precise I'll say that my investment project topic is Opening a café in New Zealand. Since café has to be placed somewhere, I've decided to chooses Auckland as a preferable city.

Now I'll move to the analysis of future market.

SECTION 2. FOREIGN ECONOMIC ACTIVITY OF NEW ZEALAND: INTERNATIONAL GOODS AND CAPITAL MOVEMENT

2.1 EXPORT ACTIVIY OF NEW ZEALAND

New Zealand is a developed country with a market economy based on agriculture, manufacturing and food processing, and tourism. The country's economy has an export orientation. According to various estimates, at least 20% of the country's production is intended for export. The main export sectors of the country's economy are agriculture, seafood extraction and processing, forestry and woodworking. These sectors account for more than half of the country's export revenues. Dairy products account for at least 18% of total exports, wool accounts for at least 14% of exports, and forestry and woodworking products account for at least 4% of New Zealand's total exports.

Also, New Zealand exports services, which is important part od this survey (Appendix A).

Oil products and fuel accounted for the largest share of the country's imports, with consumers spending over $3.1 billion on such purchases. The second largest niche of imports in recent years has been automobiles, taking up $3.1 billion in total imports. This is followed by the import of aviation equipment with an annual cost of at least $1.7 billion.

New Zealand is an energy dependent country. The production of gas and coal can cover its own needs, but the oil fields are drying up, so New Zealanders are importing oil. New Zealand is a completely non-nuclear state; there are no nuclear power plants here. On the other hand, the green energy industry is excellently developed on the islands; New Zealand is the leading developer of such technologies, and in the future the country plans to reach self-sufficiency in energy supply thanks to wind and hydroelectric power plants.

Export of agricultural and seafood products is the main component of the country's income from foreign trade. New Zealanders are importing primarily energy resources. Cars are also an important export item: New Zealand ranks fifth in the world in terms of motorization (718 cars per 1,000 people; data for 2012), while the country has no own car industry.

Source: Tradingeconomins.com

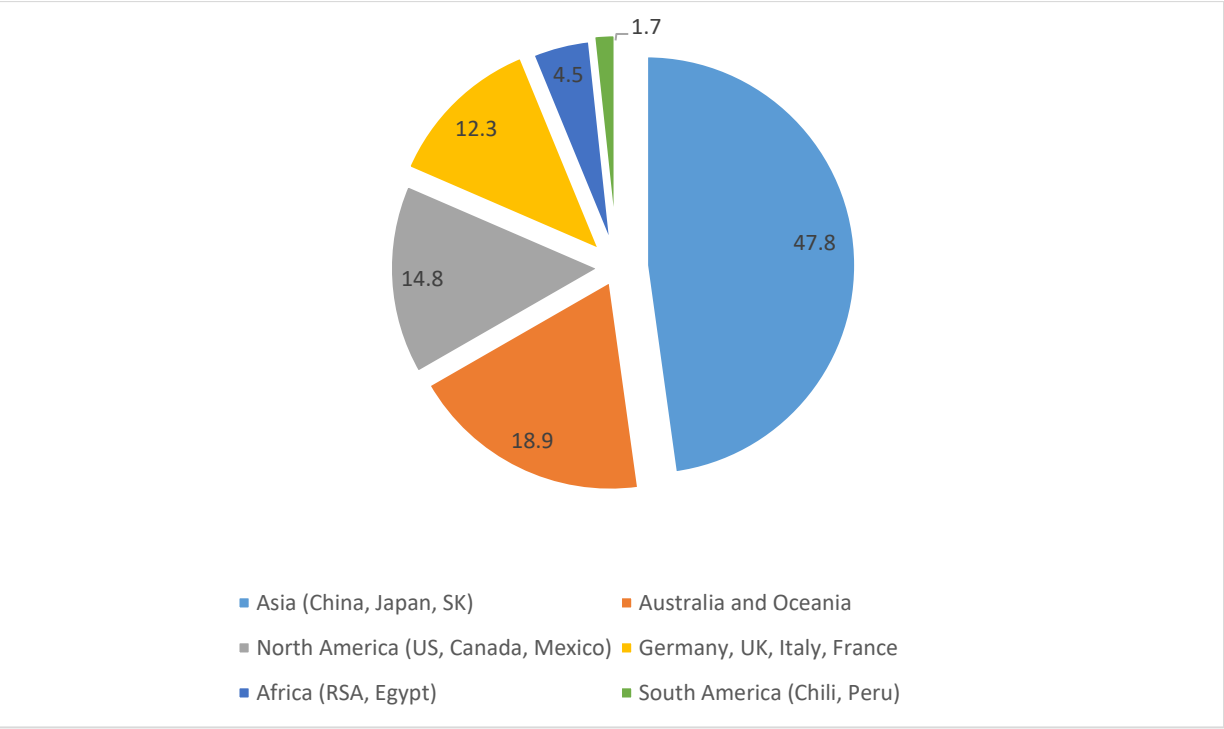


Fig. 2.1.1 Main export destinations, New Zealand

The country's main trading partners are Australia (the volume of trade with this country is based on 2005 data). 6.1 billion dollars, USA (4.2 billion dollars according to the same data), Japan (3.3 billion dollars). At least 70% of exports from New Zealand are from APEC countries.

New Zealand is famous for its dairy products and is among the top 10 countries in the world in terms of export volumes of pasteurized, condensed and powdered milk. Also casein, cheese, meat products, fruit and wine are exported from New Zealand.

Source: Tradingeconomins.com

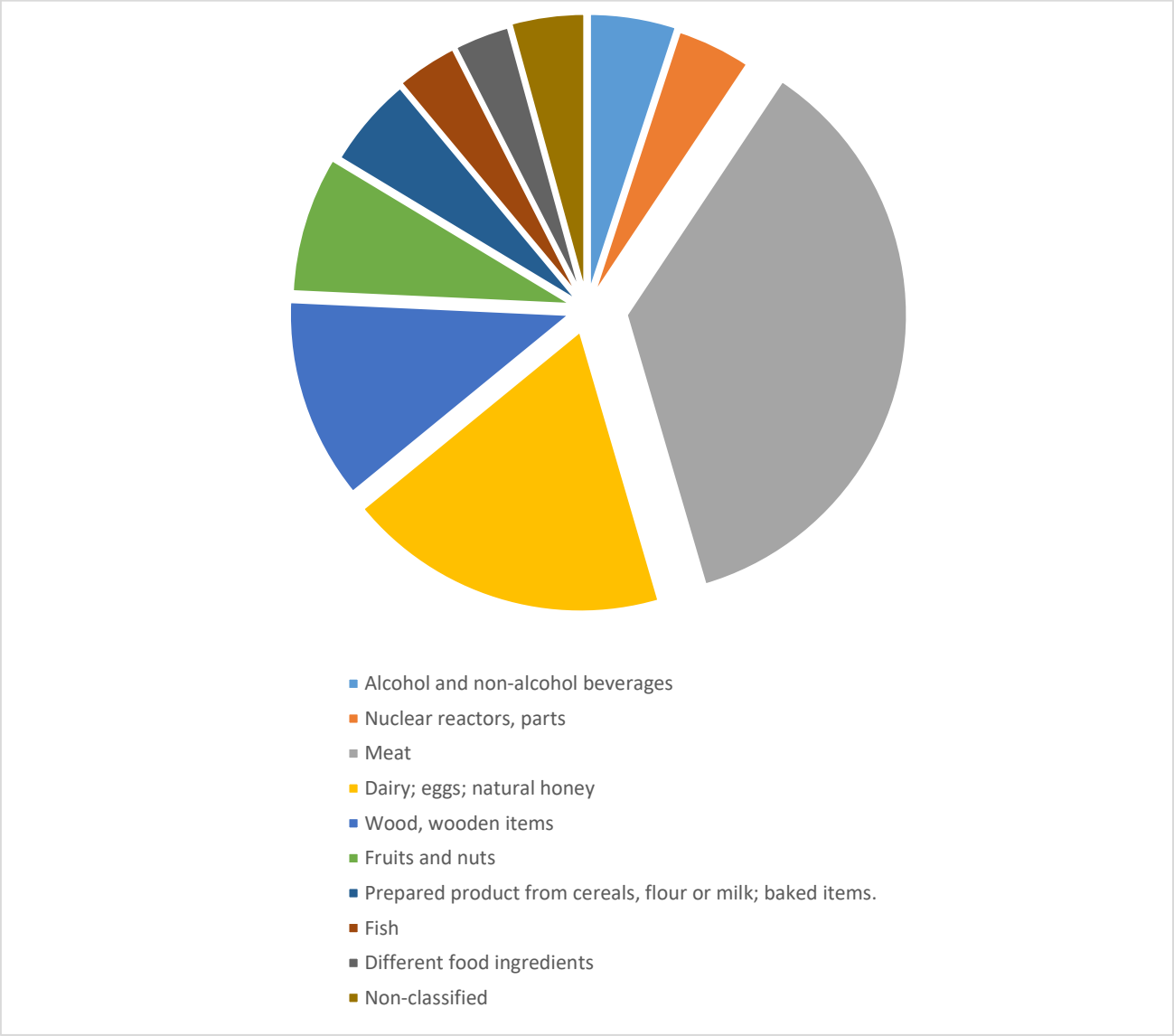


Fig. 2.1.2 Sectoral division of exports, New Zealand

New Zealand has a worldwide reputation as an efficient and innovative agricultural producer. The structure of New Zealand's agricultural industry is in many ways unique to developed countries. Its main feature is the lack of government subsidies and the need for agricultural producers to compete independently with their counterparts from other producing countries, traditionally supported by their states. It is in this regard that New Zealand is a strong advocate at international economic forums, especially within the WTO, for the introduction of a general regime of control over the processes of state financial support of agricultural industries in all producing countries.

2.2 IMPORT ACTIVITY OF NEW ZEALAND

One of the main articles in New Zealand imports is mineral fuels. In addition to mineral fuels, other imports include industrial goods and high-tech industries such as machinery and electrical equipment, cars, and photographic equipment. New Zealand's import structure has remained virtually unchanged over the last seven years.

Source: Tradingeconomics.com

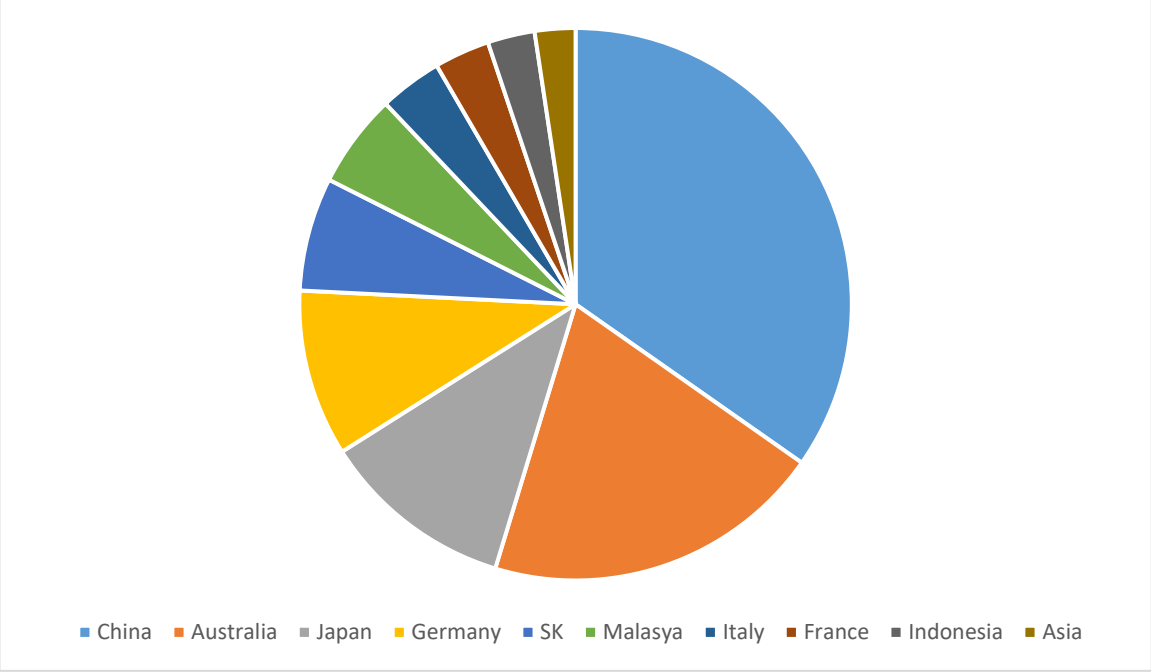


Fig. 2.2.1 Main importers

The exceptions are an increase in mineral fuel imports and a decline in machinery imports.

Against the backdrop of increased exports to the machinery industry, this can be seen as a sharp increase in domestic production of machinery that has offset a significant share of domestic demand for machinery.

Moreover, if we take into account the considerable size of exports and imports in the New Zealand machinery industry, we can conclude that there is

intra-sector trade in machinery between New Zealand and its foreign trade partners.

In terms of New Zealand's services imports (Appendix B), transport and tourism dominate. The significant increase in transport services imports, with an equally significant drop in exports, reveals a stagnating international transport industry in New Zealand, which only the "tourism boom" in the country protects against complete decay.

Source: Tradingeconomics.com

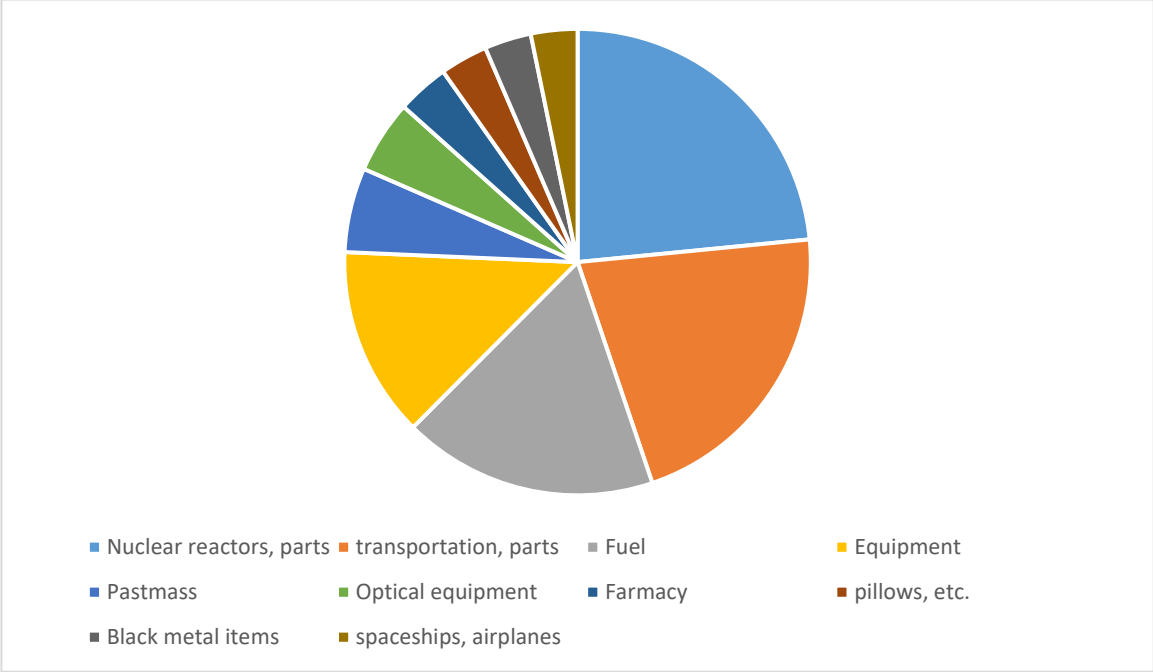


Fig. 2.2.2 Import by sectors, New Zealand

Imports of tourist services are growing significantly - in other words, New Zealanders are visiting more and more countries every year.

2.3 FDI IN NEW ZEALAND

Foreign direct investment (according to the IMF methodology) foreign investment covering 10 or more percent of voting shares. Foreign direct investment - foreign investment large enough to allow the investor to establish effective

control over the management of the enterprise and create a long-term interest in the successful functioning and development of this enterprise.

Foreign direct investment (FDI) in New Zealand hit a record high of New Zealand dollars in September 2019. This is evidenced by the Statistics New Zealand, released on Wednesday. (Foreign direct investment in New Zealand continues to increase | Stats NZ, 2020)

Foreign investors buying New Zealand government bonds contributed $ 5.8 billion in New Zealand investment capital to New Zealand in September 2019 (Foreign direct investment in New Zealand continues to increase | Stats NZ, 2020).

Source: WorldBank.com

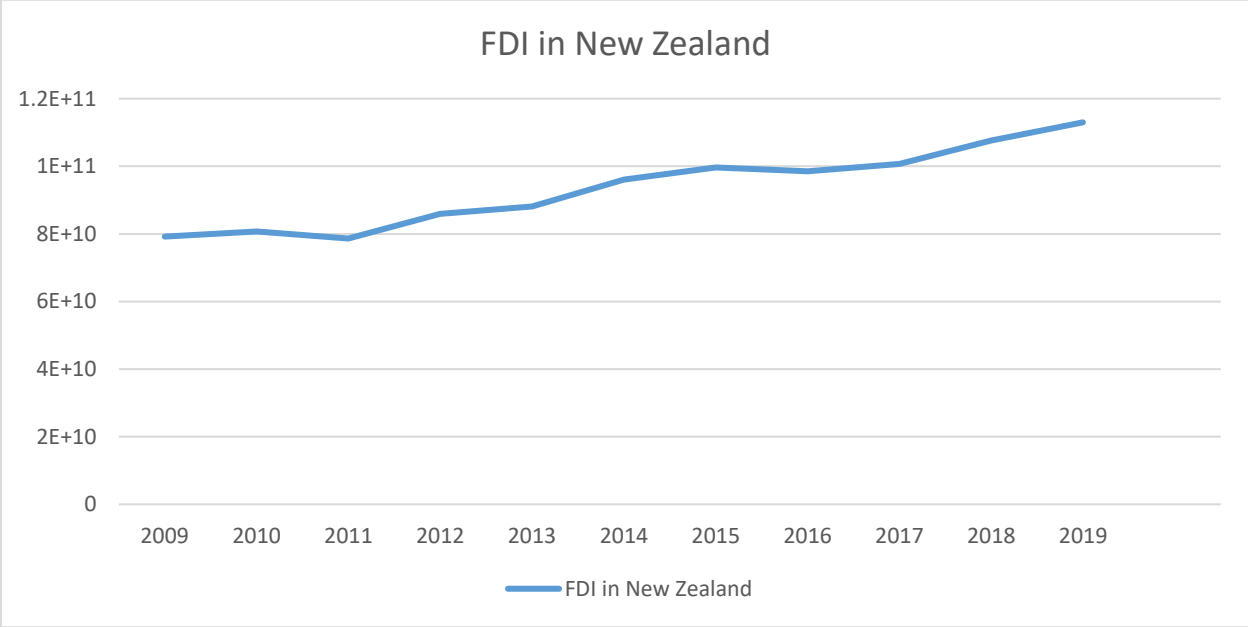


Fig. 2.3.1 FDI in New Zealand, amount

The distribution of New Zealand's FDI is very common for countries with developed economy. The biggest part of it goes into the Financial and insurance services (Fig. 2.3.2). Also, New Zealand Economy relies on manufacturing, which is supported by Manufacturing being the second largest part of FDI.

Source: Tradingeconomics.com

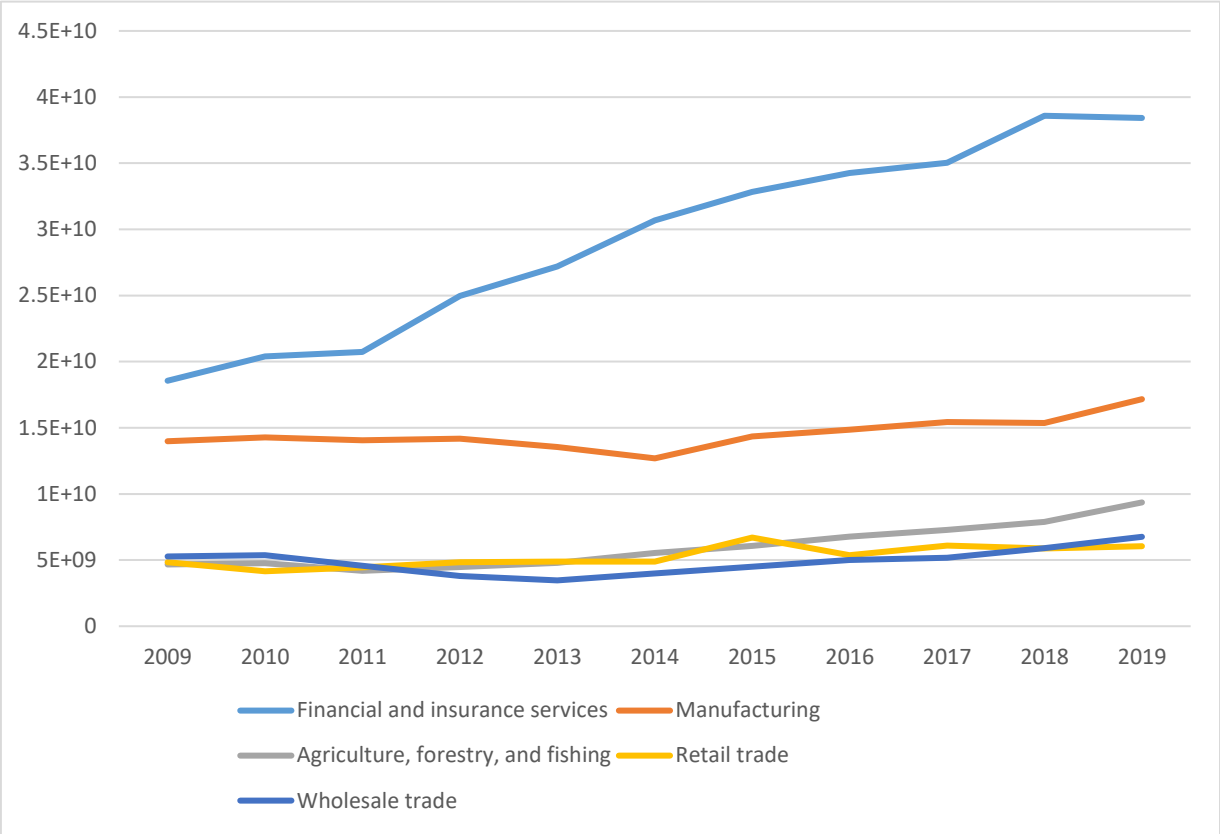


Fig. 2.3.2 FDI by sector in New Zealand

While analysing FDI it is important to identify main sources of it, such as countries for which they are supplied. Australia is the closest and apparently the biggest (Fig. 2.3.3) party to donate into New Zealand. It exceeds investments made by the United States of America. Furthermore, Australia' part is half of Total FDI, made by all the countries. So, it might be appropriate to state, that neighbour country plays huge part in the development of the economy of New Zealand.

At 31 March 2019, the financial and insurance services industry was the biggest recipient of investment. From 2009 to 2019 it has almost doubled to $38.4 billion.

The New Zealand government is interested in developing business, so the country has introduced visas for start-ups, available government programs to financially support start-up entrepreneurs, and incubators and accelerators for entrepreneurs.

Foreign nationals have the opportunity to obtain permanent residence (permanent residency) in New Zealand in exchange for major investments in the economy.

Source: Tradingeconomics.com

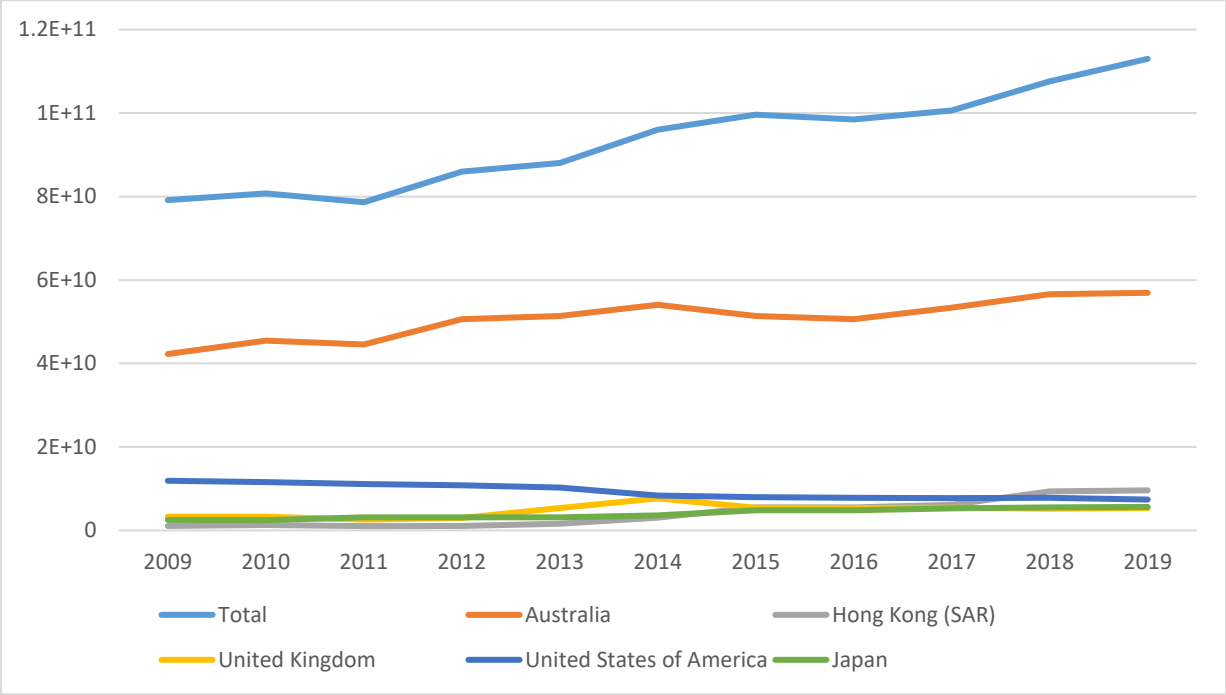


Fig. 2.3.3 Sources of FDI

Australia is the biggest source of FDI ($56.93 billion). The other major source countries to New Zealand's FDI are Hong Kong ($9.59 billion), Special Administrative Region of China, the United States ($7.39 billion), Japan ($5.61 billion), and the United Kingdom ($5.33 billion).

2.4 ASSESMENT OF INVESTMENT ATRACTIVENESS OF NEW ZEALAND

Unlike most major OECD countries, New Zealand was not subject to a severe and rapid recession. The fact is that this state, located in the eastern hemisphere of our planet, unlike other highly developed countries, has very strict banking and credit standards. Since New Zealand was able to withstand all the

financial problems due to the crisis of mortgage markets, we can say with confidence that this market has no significant direct impact on the economic and financial stability of New Zealand. As long as the country's banks do not provide risky loans, the impact of the economic downturn will not be as strong and tangible as it was in other countries where the mortgage market has had a strong presence and influence on the economy.

New Zealand can offer other attractive financial benefits that allow both the jurisdiction itself and investors to stay on the plus side. New Zealand has a policy of maximum diversification. In addition, the central government of the island state has called its economy the international leader among small countries. And no matter what the critics say, this position is constantly confirmed by international currency markets.

New Zealand maintains comparative privileges at the international level, despite the fact that the U.S. economy is recovering. In addition, the New Zealand currency against the U.S. dollar is the second most attractive of the 16 major currencies monitored by Bloomberg in 2014. Revenues of New Zealand dollar are approaching 4%, unlike other currencies, such as the Canadian dollar, which experienced a -3.6% decline. (TradingEconomics.com, 2020)

More recently, the New Zealand dollar also rose in price thanks to the policy of the Central Bank of New Zealand, which was the first CB among developed countries to raise interest rates since 2011. And of course, the country's economic development continues to stimulate growth and progress of the local currency. It is also worth noting that New Zealand was not subject to a rapid drop in oil prices. This is largely due to the fact that the country is not heavily dependent on commodities and resources, unlike many other countries.

The country "kiwi", is a significant exporter of many products, which guarantees the economic stability of the jurisdiction, and allows to take a worthy place in the international market. Because the world is increasingly in need of dairy products, New Zealand will have a stable market for many years to come.

Despite all the positive and stable trends and prospects for the New Zealand economy, the country is also known for its political stability, which brings financial stability and the highest standards of living compared to all OECD countries. There is, however, little corruption in the country and both ruling parties adhere to a centrist ideology. Thus, no radical changes are expected in the political sphere of the country, even if there is a change of government.

New Zealand is located near the most highly developed and attractive Asian countries, which offers a host of opportunities, both for the jurisdiction itself and for Asian investors who have valued the stability and attractiveness of New Zealand over the years. High-end investors from China and Japan value New Zealand not only the investment market, but also life itself: good schools, low crime rates and a clean environment.

New Zealand's economic success story offers investors peace of mind, thanks to the understanding that New Zealand offers safe, high-yield investment opportunities that outperform comparable investments virtually anywhere in the world.

SECTION 3. DEVELOPMENT OF AN INTERNATIONAL INVESTMENT PROJECT TO ESTABLISH A CAFE

3.1 FUTURE MARKET ANALYSIS

Even multibillion-dollar corporations don't sell to "everyone." Ask yourself: can Nike say that everyone in the world who has "feet" will become potential consumers of their products? Before you answer, let's look at the following four questions that you need to answer when defining your TAM:

- Who has the need for my products or services, the financial ability to buy my products and the ability to find my products?
- How many of these people or businesses exist today?
- How much money does each person or business currently spend each year solving a problem that my product or service solves?
- Who else can I share this market with?
- Who will I share the market with and compete with?

Now with all this in mind, try to answer the question about TAM regarding Nike. The answer is simple: "no, not all". No matter how omnipresent the Nike brand may be, not everyone in the world has heard of Nike, not everyone can afford a pair of Nike sneakers, not everyone has a need or desire to wear sports shoes. That's why you should never say, "Everyone who..." when defining and analysing your total address market (TAM).

Therefore, for the analysis TAM (Total Addressable Market) analysis was chosen. It helps to estimate potential future customer base and, therefore, approximate ultimate income.

Firstly, population statistics of Auckland is needed to be gathered. The data for it was gathered from The Population Division of the Department of Economic and Social Affairs of the United Nations website. It is stated that the population of the city now is estimated at 1,606,564.

Small and medium-sized businesses in New Zealand occupy the lion's share in the country's economy.

I will now conduct a market analysis. Population of Auckland is currently estimated at 1,606,564. Unfortunately, official data of age is only available for 2013. I'm going to use it as a basis for future calculations. Population of Auckland was estimated at 1 415 544 in 2013 (New Zealand population, 2020).
For year 2013 percentage of different age groups within population was following

People from 0 to 5 years = 102357/1415544 x 100% = 7.2%
People from 5 to 10 years = 97590/1415544 x 100% = 6,9%
People from 10 to15 years = 96405/1415544 x 100% = 6,8%
People from 15 to 20 years = 102918/1415544 x 100 = 7,3%
People from 20 to 25 years = 108222/1415544 x 100% = 7.6%
People from 25 to 30 years = 99942/1415544 x 100% = 7.1%
People from 30 to 35 years = 98538/1415544 x 100% = 7%
People from 35 to 40 years = 95535/1415544 x 100% = 7,6%
People from 40 to 45 years = 106218/1415544 x 100% = 7,4%
People from 45 to 50 years = 102384/1415544 x 100% = 7,2%
People from 50 to 55 years = 95112/1415544 x 100% = 6,7%
People from 55 to 60 years = 78960/1415544 x 100% = 5.5%
People from 60 to 65 years = 68208/1415544 x 100% = 4,7%
People from 65 years and above = 163155/1415544 x 100% = 11%

I am going to ally the same percentage division for the current population of Auckland. Which is now estimated at *1 606 564* (New Zealand population, 2020). The age of the customers of a cafe is going to be above 15 (from the age when children can decide where they want to eat). Therefore, let's calculate approximate maximum number of potential customers. If we take percentage of people aged 15 and above, we will get *1 270 792* customers which is a lot. Surely, not all of these

people can be included as a “potential customers”. Some of they might not have money; others – not interested in services provided.

Usually, a new business tries to capture at least 1% of the client base. However, since a ready-made business is being bought, it means that it is possible to hope to capture from **4** to **5** percent of potential clients.

It means that the potential customer base of the cafe is between *50 832 and 63 540*. Therefore, let’s take the average as a constant:

Potential customers base = (50 823+ 63 540)/2 = *57 182 persons.*

Also, it is important to take into account current Benchmarks on the market. For Food business (especially Cafes and Restaurants in New Zealand), they are following (Fig. 3.1.1)

Table 3.1.1

Benchmark Indicators

	Micro	**Small**	**Medium**	**Large**
Turnover bands	$60,000 - $196,000	$196,001 - $384,000	$384,001 - $777,000	$777,001 - $10,000,000
Gross profit ratio	0,59	0,62	0,63	0,65
Stock turnover per annum	19 times	26 times	30 times	33 times
Salaries and wages / turnover ratio	0,18	0,28	0,32	0,34
Return on total assets	0	0	0	0,03
Return on equity	0,14	0,08	0,07	0,23
Current ratio	0,28	0,31	0,42	0,55
Quick ratio	0,17	0,18	0,28	0,42
Liability structure	0	0	0	0,06

3.2 EXPENSES, PAYROLL, INCOME CALCULATTIONS

It is desirable for cafe to serve 150 people per day, however, it is not going to rock from the fist day, since there is a lot of work to be done. However, even

though it's risky, it can be suggested that in first two months' average number of people is going to be around **110** people daily (12 hours a day).
Further, it is needed to hire workforce to serve 110 people daily.

The table below represents daily, monthly yearly salary expenses for all the potential workers. There are going to be 9 job titles and 12 positions, therefore, for one positions two employees are going to be hired.

Furthermore, to provide efficient work of café, it is important to receive the document (Appendix C), which is called "My Food Rules", and is released by Auckland Council.

First position is Chef Cook. There are no strict requirements, however, the person have to be experienced enough. Working house of the Head Chef are from 10am till 17pm. He is responsible for creating menu and pastry dishes, and also for ordinary chefs' supervision. Wage per hour for Head Chef is 21 NZD (usually Head Chefs in New Zealand earn between 19 and 24,5 NZD hourly, (Hospitality | Frontline Recruitment Group, 2020). Therefore, Head Chef working 7 hours daily is going to earn:

$$W_{hc/daily} = 21 \times 7 = 147 \text{ NZD};$$

I've decided to calculate monthly wage with following pattern:

$$W_{x/monthly} = W_{x/daily} \times 30;$$

Thus, for Head Chef monthly salary is going to be following:

$$W_{hc/monthly} = 147 \times 30 = 4410 \text{ NZD};$$

The yearly wage equals:

$$W_{x/yearly} = W_{x/monthly} \times 12;$$

For Head Chef it is calculated below:

$W_{ch/yearly}$ = 4410 x 12 = *52 920 NZD.*

Second position is Chef. There are also no strict requirements, the person can have little experience but needs be familiar with basic kitchen rules and be a fast-learner. The cources will be provided if required. Working house of the Chef are from 10am till 16pm. There are going to be two positions for Chefs and they are going to work 15 days each. He is responsible for creating menu and pastry dishes, and also for ordinary chefs' supervision. Wage per hour for Head Chef is 18 NZD (usually Chefs in New Zealand earn between 17 and 21 NZD hourly, (Hospitality | Frontline Recruitment Group, 2020)). Therefore, Chef working 7 hours daily is going to earn:

$W_{c/daily}$ = 18 x 6 = 108 NZD

I've decided to calculate monthly wage with following pattern:

$W_{x/monthly}$ = $W_{x/daily}$ x 15(since each of Chefs is going to work 15 days out of 30);

Thus, for one Chef monthly salary is going to be following:

$W_{c/monthly}$ = 108 x 15 = 1 620 NZD;

And for two Chefs it is going to be:

2 x $W_{c/monthly}$ = 2 x 1 620 = 3 240 NZD;

For one Chef yearly wage is calculated below:

$W_{c/yearly}$ = 1 620 x 12 = 19 440 NZD;

And for two Chefs it is going to be:

2 x $W_{c/yearly}$ = 2 x 19 400 = 38 880 NZD

Third position is Hall Administrator. The person is required to have experience in management, however, additional training might be provided if needed. Working house of the Hall Administrator are from 10am till 16pm. He/she is responsible for taking reservations for lunches, supervise in-hall activity of employees (barista, waiter and cleaner). Wage per hour for Hall Administrator is 18 NZD (usually Hall Administrators in New Zealand earn between 17 and 21 NZD hourly, ((Hospitality | Frontline Recruitment Group, 2020). Therefore, Hall Administrator working 6 hours daily is going to earn:

$W_{a/daily}$ = 18 x 6 = 108 NZD

I've decided to calculate monthly wage with following pattern:

$W_{x/monthly}$ = $W_{x/daily}$ x 30;

Thus, for one Chef monthly salary is going to be following:

$W_{a/monthly}$ = 108 x 30 = 3 240 NZD;

For one Hall Administrator yearly wage is calculated below:

$W_{a/yearly}$ = 3 240 x 12 = *38 880 NZD*;

Fourth position is Barista. The person is required to have experience in making coffee, however, additional training might be provided if needed. Working house of the Barista are from 8am till 8pm. He/she is responsible for making coffee for customers and selling pastries and food (salads, sandwiches, pasta), while waiter are off-duty, cleaning tables and washing dishes, while cleaners are off-duty. There are going to be two positions. Each of barista is going to work 15 days. Wage per hour for Barista is 17 NZD plus tips earned (usually Barista in New Zealand earn between 16 and 20 NZD hourly, (Hospitality | Frontline Recruitment Group, 2020). Therefore, Barista working 12 hours daily is going to earn:

$W_{b/daily} = 17 \times 12 = 204$ NZD

I've decided to calculate monthly wage with same pattern as for chefs:

$W_{x/monthly} = W_{x/daily} \times 15;$

Thus, for one Barista monthly salary is going to be following:

$W_{b/monthly} = 204 \times 15 = 3\,060$ NZD;

Therefore, for two Barista it is going to be:

$2 \times W_{b/monthly} = 2 \times 3\,060 = 6\,120$ NZD;

For one Barista yearly wage is calculated below:

$W_{b/yearly} = 3\,060 \times 12 = 36\,720$ NZD;

Thus, for two Barista it is going to be:

$2 \times W_{b/yearly} = 2 \times 36\,720 = \underline{\textit{73 440 NZD}}$;

Fifth position is Waiter. The person is not required to have experience in services area, however, he/she is needed to be friendly, eloquent and talkative. Training will be provided if needed. Working house of the Waiter are from 12pm till 6pm. He/she is responsible for selling coffee for customers and selling pastries and food during the lunch time, and also serving clients. There are going to be two positions. Each of waiters is going to work 15 days. Wage per hour for Waiter is 16 NZD plus tips earned (usually Waiter in New Zealand earn between 15 and 20 NZD hourly, (Home - Restaurant Association of New Zealand, 2020) Therefore, Waiter working 6 hours daily is going to earn:

$W_{w/daily} = 17 \times 6 = 96$ NZD

I've decided to calculate monthly wage with same pattern as for chefs and baristas:

$W_{x/monthly} = W_{x/daily} \times 15$;

Thus, for one Waiters monthly salary is going to be following:

$W_{w/monthly} = 96 \times 15 = 1\,440$ NZD;

Therefore, for two Waiters it is going to be:

$2 \times W_{w/monthly} = 2 \times 1\,440 = 2\,880$ NZD;

For one Waiter yearly wage is calculated below:

$W_{w/yearly} = 3\,060 \times 12 = 17\,280$ NZD;

Thus, for two Barista it is going to be:

$2 \times W_{w/yearly} = 2 \times 17\,280 = \underline{\textit{34 560 NZD}}$;

Sixth position is Bookkeeper. The person is required to be skilled enough and experience in accounting and finance area. Working house of the Bookkeeper are flexible. There is no strict schedule, therefore, it is hard to calculate daily wage. He/she is responsible for running finance and accounting activity of a company and is not working from office. Wage per month for Bookkeeper is approximately 3 500 NZD (usually Bookkeeper in New Zealand earns between 40 000 and 62 000 NZD hourly, (PayScale - Salary Comparison, Salary Survey, Search Wages, 2020) Therefore, Bookkeeper working for 12 months is going to earn:

$W_{b/yearly} = 3\,500 \times 12 = \underline{\textit{42 000 NZD}}$

Seventh position is Weekdays Cleaner. The person is not required to have experience in services area, however, he/she is needed to be friendly. All the necessary equipment is going to be provided. Working hours of the Weekdays Cleaner are from 12pm till 6pm from Monday till Friday. He/she is responsible for cleaning tables and the space, washing dishes and drying them. Wage per hour for Weekdays Cleaner is 14 NZD (usually Cleaner in New Zealand earns between 14 and 18 NZD hourly, (Hospitality | Frontline Recruitment Group, 2020). Therefore, Weekdays Cleaner working 6 hours daily is going to earn:

$W_{weekdaysc/daily} = 14 \times 6 = 84$ NZD

I've decided to calculate monthly wage with the following:

$W_{x/monthly} = W_{x/daily} \times 20$;

Thus, for Weekdays Cleaner monthly salary is going to be following:

$W_{weekdaysc/monthly}$ = 84 x 20 = 1 680 NZD;

For the Weekdays Cleaner yearly wage is calculated below:

$W_{weekdaysc/yearly}$ = 1 680 x 12 = *20 160 NZD;*

Eighth position is Weekends Cleaner. The person is not required to have experience in services area, however, he/she is needed to be friendly. All the necessary equipment is going to be provided. Working hours of the Weekends Cleaner are from 12pm till 6pm on Saturdays and Sundays. He/she is responsible for cleaning tables and the space, washing dishes and drying them. Wage per hour for Weekdays Cleaner is 14 NZD (usually Cleaner in New Zealand earns between 14 and 18 NZD hourly, (Hospitality | Frontline Recruitment Group, 2020). Therefore, Weekdays Cleaner working 6 hours daily is going to earn:

$W_{weekendssc/daily}$ = 14 x 6 = 84 NZD

I've decided to calculate monthly wage with the following:

$W_{x/monthly} = W_{x/daily}$ x 8;

Thus, for Weekdays Cleaner monthly salary is going to be following:

$W_{weekendsc/monthly}$ = 84 x 8 = 672 NZD;

For the Weekdays Cleaner yearly wage is calculated below:

$W_{weekendsc/yearly}$ = 672 x 12 = *8 064 NZD;*

Ninth position is Social Media Manager. The person is required to have experience in photography and Social Media Management (SMM). Working hours of the Social Media Manager are flexible. He/she is required to run Social Media accounts of café and update information every day. Wage per hour for Social Media Manager is 50 NZD (Sara G., Digital Marketing, 2020). SM Manager is going to work 1,5 hours daily. Therefore, SM Manager working 1,5 hours daily is going to earn:

$W_{SMM/daily} = 50 \times 1,5 = 75$ NZD

I've decided to calculate monthly wage with the following pattern:

$W_{x/monthly} = W_{x/daily} \times 30;$

Thus, for SM Manager monthly salary is going to be following:

$W_{SMM/monthly} = 75 \times 30 = 2\ 250$ NZD;

For the SM Manager yearly wage is calculated below:

$W_{SMM/yearly} = 2\ 250 \times 12 =$ *27 000 NZD;*

Consequently, total payroll for 12 positions is going to be 335 904 NZD on year 2020. Further it is going to change due to inflation. If 2021s' inflation is 2,02% as predicted (New Zealand Inflation Rate | 1918-2020 Data | 2021-2022 Forecast | Calendar, 2020) then total payroll is going to be:

TP2021 = TP2020+TP2020 x i,
where i – inflation rate;

TP2021 = 335 904 + 335 904 x 2,02% = *342 689 NZD*

Table 3.2.1

№	Job position	Number of people	Wage NZD/day	Wage NZD/month	Total NZD/month	Total NZD/year 2020
1	Head Chef	1	147	4 410	4 410	52 920
2	Chef	2	108	1 620	3 240	38 880
3	Administrator	1	108	3 240	3 240	38 880
4	Barista	2	204	3 060	6 120	73 440
5	Waiter	2	96	1 440	2 880	34 560
6	Bookkeeper	1		3 500	3 500	42 000
7	Weekdays Cleaner	1	84	1 680	1 680	20 160
8	Weekend Cleaner	1	84	672	672	8 064
9	Social Media Manager	1	75	2 250	2 250	27 000
Total payroll 2020		**12**	**906**	**21 872**	**27 992**	**335 904**
Total payroll 2021		**12**	**924**	**22 313**	**28 557**	**342 689**

Payroll daily, monthly, yearly

One-time expenses are required for business purchase (Buy a spacious north shore cafe- huge potential, 2020) and some kind of renovations, which are needed to bring café to life. They include:

Table 3.2.2

One-time Expenditures

№	Title	Amount (units)	Amount (NZD)	Amount Total (NZD)
1	Business with equipment	1	68 000	68 000
2	Registration of company	1	150	150
3	Redecoration of the café	1	30 000	30 000
4	Coffemachine	1	17 345	17 345
5	Original NitroPress	2	249	498
6	Set of cups (2 cups per set)	25	13,71	342,75
7	Set of small cups (2 cups per set)	25	11,76	294
8	Plates (set of 2)	25	12,65	316,25
9	Small plates (set of 2)	25	10,32	258
9	Coffeespoons (set of 2)	25	2,5	62,5
10	Forks and knives (sets of one each)	50	4,67	233,5
11	IC1000 Remote Multi Bubbler Under Chiller 120L per Hour	1	3 499,0	3 499,0
12	IC8 Sink Remote Water Chiller Cooler 8L per hour	1	499	499
13	IC20 Under Sink Remote Water Chiller Cooler 20 L per hour	1	2 499,0	2 499,0
Total				**123 997**

In addition there are going to be expenses that are not covering groceries, such as: cups to go, advertising expenses, rent, coffee beans, water and power bills, cleaning company and legal consultations.

Table 3.2.3

Estimated Expenditures

№	Title	Amount (Units)	Amount (NZD)	Amount Total (NZD)/month	Amount Total (NZD)/year
1	Advertising expenses – publication (Instagram/Facebook)	30	4	120	1 440
2	Set of Cups to go (set of 25 cups)	100	5,69	569	6 828
3	Cleaning company (twice a month)	2	315	630	7 560
4	Rent 1 Week	4	1060	4240	50 880
5	Legal consultations (1 hour)	3	140	420	5 040
6	Power bill	1	500	500	6 000
7	Water bill	1	500	500	6 000
8	Coffee beans (4 KG weekly for 159,99NZD)	4	159,99	639,96	7 679,52
Total				**7 618,96**	**91 427,52**

One of the hardest part for the café, except getting profit, is calculating and establishing tryst-worthy relations with suppliers. I was able to find two of them<

which provide groceries level on adequate prices. However, wholesales chosen provides free delivery around Auckland.

Information taken from realfooddirect.co.nz – delivery free

Table 3.2.4

Source: realfooddirect.co.nz

Estimated Expenditures

№	Title	Amount (units)	Amount (NZD)	Amount Total (NZD)/month	Amount Total (NZD)/year
1	Salt – Fine Table Salt (5KG)	1	18	18	216
2	Pecan Nut Halves (1 KG)	3	48,36	145,08	1 740,96
3	Panko Breadcrumbs White (5KG)	2	39	78	936
4	Onion Powder (1KG)	2	15	30	360
5	Milk Chocolate Buttons (1KG)	10	11	110	1 320
6	Laucke Crusty White (2,4KG)	10	13,90	139	1 668
7	Laucke Barossa Sour Dough Rye	10	13,9	139	1 668
8	Dark Chocolate Budlets 66% (1KG)	20	16,5	330	3 960

Table 3.2.4 Countinued

9	Dark Belgian Chocolate Buttons (Stevia) (1KG)	10	51,48	514,8	6 177,6
10	Curry Powder (500G)	2	6,76	13,52	162,24

Table 3.2.5

Source: realfooddirect.co.nz

Estimated Expenditures

11	Coconut Oil – Organic (4,5L)	1	59,50	59,50	715,2
12	Coconut Milk – Classic (425ML)	50	4	100	1 200
13	Coconut Cream – Rich and Creamy (400ML)	50	4,5	225	2 700
14	Cinnamon Ground (1 KG)	2	29,12	58,24	698,88
15	Carob Powder (5 KG)	2	44,20	88,40	1 060,8
16	Baking Soda ((1KG)	1	4,29	4,29	51,48
17	Almonds Ground (Almond Flour) (5KG)	2	148,20	296,40	3 556,8
18	Organic Coconut Chips (1KG)	2	13	26	312

Table 3.2.5 Continued

19	Bakers Flour Sunflied	3	16	48	576
20	Self Raising Flour (3KG)	5	14	70	840
21	Sugar (Golden), Organic (25 KG)	1	104	104	1 248
22	Chia Seeds, Organic	2	70,20	140,40	1 684,8
23	Dates, Brown (1KG)	20	7,28	145,60	1 747,2
24	Cranoro Shpaghetti (500G)	30	4,25	127,50	1 530
25	Sweetened Condensed Coconut Milk	20	5	100	1200
Total				**3 110,73**	**37 328,76**

In other shop it was possible to find vegetables and fruits with free delivery around Auckland. Information from Fruitveg.nz:

Table 3.2.6

Source: Fruitveg.nz

Estimated Expenditures

№	Title	Amount (Unit)	Amount (NZD)	Amount Total (NZD)/month	Amount Total (NZD)/year
1	Mango Pulp (1KG)	15	3,99	59,85	718,2
2	Size 6 Eggs (10)	30	9,99	299,7	3 596,4

Table 3.2.6 Continued

3	Crème (500ML)	20	5,99	119,8	1 437,6
4	Milk (3L)	25	6,99	174,75	2 097
5	Onion Brown (10KG)	1	14	14	168
6	Lettuces Size 2 (1KG)	20	5,50	110	1320
7	Ginger (1KG)	10	16	160	1 920
8	Cucumbers (1KG)	15	3,49	52,35	628,2
9	Cherry Tomatoes (KG)	25	6,00	150	1 800
10	Carrots (KG)	20	2,99	59,8	717,6
11	Broccoli (KG)	30	2,99	89,7	1 076,4
12	Lemon (KG)	15	9,99	149,85	1 798,2
13	Pineapples (KG)	10	10	100	1200
14	Blueberry Punnet (KG)	20	6	120	1 440
15	Avocados (KG)	20	2,99	59,8	717,6
16	Banana (KG)	30	3,49	104,7	1 256,4
	Total			**1 824,3**	**21 891,6**

Meat is important part of some dishes (pasta, sandwiches and salads), so it was decided to buy 50KG monthly, however, if it is not enough there is a gap for increasing the amount purchase. Also delivery is free.

The information is taken from wholesalers' website (*Chickennthings.co.nz)*

Estimated Expenditures

Table 3.2.7

Source: Chickennthings.co.nz:

№	Title	Amount (Unit)	Amount (NZD)	Amount Total (NZD)/month	Amount Total (NZD)/year
1	Chicken Tenderloins (5KG)	10	59,95	599,5	7 194
Total				**599,5**	**7 194**

Since café is going to be serving lunches, sandwiches and salads, cheese is important to provide customers with vegetarian meal options. The information is taken from wholesalers' website Nzcheese.co.nz, and due to the amount of cheese purchased monthly the delivery is going to be free of charge.

Table 3.2.8

Source: Nzcheese.co.nz

Estimated Expenditures

№	Title	Amount (Unit)	Amount (NZD)	Amount Total (NZD)/month	Amount Total (NZD)/year
1	Aged Maasdam (KG)	6	48,3	289,8	3 477,6
2	Pecorino (KG)	3	80,5	241,5	2 898
3	Goat Feta (125G)	50	11	550	6 600
Total				**1 081,30**	**12 975,6**

Total Expenditures 1st year = Total Expenses yearly + Total Payroll yearly + One-time Expenses = 170 817,48 + 335 904 + 123 997 = *630 718,48 NZD.*

This indicator is going to be taken as Initial Investment Required

Total Expenditures 2nd year = (Total Expenses yearly + Total Payroll) + (Total Expenses yearly + Total Payroll) x i,

where i = inflation rate;

Total Expenditures 2nd year = (170 817,48 + 335 904) + (170 817,48 + 335 904) x 2,02% = 506 721,48 + 10 235,78 = *516 957, 25*.

Total Expenditures 3rd year = Total Expenses 2nd year + Total Expenses 2nd year x i,

where i = inflation rate;

Total Expenditures 3rd year = 516 957,25 + 516 967,25 x 2,02 = *527 399,79 NZD.*

Estimated Income

2 600/day – 770 – beverages. 500 – sandwiches/salads, 300 – deserts, 1250 – lunches

Following positions are going to be present in the menu of the café:

cup of coffee/tea – 7 NZD

salads/sandwich – 10 NZD

desert/pastry – 10NZD

lunch (beverage + pasta + pastry) – 25 NZD – only during lunch time (12pm-5pm)

The number of bills was estimated to be at the level of **110 - 120/day**, accordingly to the data provided by previous owners of the space. It stated that weekly income of the cafe equalled **20 000 NZD**. I've decided to take **18 200 NZD** as a weekly income.

Thus, average bill is 23,5 NZD/per one customer

Therefore, daily cafe would make:

Income/daily = 18 200 / 7 = *2 600 NZD.*

With the average bill at *23,5 NZD* (average bill within New Zealand is between 21 and 24 throughout same type cafes) it leads to almost 110 bills daily. Thus, Yearly Income of a café can be calculated using the formula:

Income before Tax for 1st Year = I_{daily} x 360 = 2 600 x 360 = *936 000*

Table 3.2.9

Averaging Revenue

№	Position	Amount (units)/ daily	Price	Income/ daily, NZD	Income/ montly, NZD	Income/ yearly, NZD
1	Cup of coffee/tea	110	7	770	23 100	277 200
2	Salad/Sandwich	50	10	500	15 000	180 000
3	Desert/Pastry	30	10	300	9 000	108 000
4	Lunch (beverage + pasta + pastry)	50	25	1 250	37 500	450 000
Total		**240**	**52**	**2 820**	**84 600**	**1 015 200**

So first year will bring Income:

Income 1st year = Income before Tax for 1st Year – Total Expenditures = 936 000 - 630 718,48 = *305 281,52 NZD*

Net Income 1st year = Income 1st year - Tax = 305 281,52 – 28% = 305 281,52 – 85 478,8 = *219 802,7 NZD*

For Second year Income (without tax) is going to be at the following level (due to the expected inflation):

Income before Tax for 2nd Year = (Income before Tax for 1st Year + Income before Tax for 1st Year x i) – Total Expenditures 2nd year,
where i – expected inflation rate

Income for 2nd Year = 936 000 + 936 000 x 2,02% = 936 000 + 18 907,2 = *954 907,2 NZD*

Income before Tax for 2nd Year = 954 907,2 - 516 957,25 = *437 949,95 NZD*

Cash Flow for Second year is going to be next:

Cash Flow 2nd year = Income before Tax for 2nd Year - Tax = 437 949,95 – 28% = 437 949,95 – 122 625,99 = *315 323,96 NZD*
For Third year Income (without tax) is going to be at the following level (due to the expected inflation):

Income for 3rd Year = Income for 2nd Year + Income for 2nd Year x i,
where i – expected inflation rate

Income for 3rd Year = 954 907,2 + 954 907,2 x 2,02% = 954 907,2 + 19 349,7 = *977 256,9 NZD*

Income before Tax for 3rd Year = 977 256,9 - 527 399,7 = *449 857,2 NZD*

Net Profit for Third year is going to be next:

Net Profit 3rd year = 449 857,2 – 28% = 449 857,2 – 125 960 = *323 897,2 NZD*

Table 3.2.10

Estimated Net Income

Indicator/ Year	Investment, NZD	Revenue of the sale, NZD	Expenditures, NZD	Profit before tax, NZD	Tax, 28%, NZD	Net profit
1	630 718,48	936 000	630 718,48	305 281,52	85 478,8	219 802,7
2	-	954 907,2	516 957,25	437 949,95	122 625,99	315 323,96
3	-	977 256,9	527 399,7	449 857,2	125 960	323 897,2
Total	**630 718,48**	**2 868 164,1**	**1 675 075,43**	**1 193 088,67**	**334 064,79**	**859 023, 88**

3.3 ASSESMENT OF INTERNATIONAL INVESTMENT PROJECT ATTRACTIVENESS

The inflation in 2020 in New Zealand is estimated at 1,94%. Inflation rate in 2021 is predicted to be 2,02%. And inflation rate for 2022 is also predicted to be 2,02%. (New Zealand Inflation Rate | 1918-2020 Data | 2021-2022 Forecast | Calendar, 2020).

I've decided to take risk rate accordingly to the fact that New Zealand is the best country in the world to do business in (worldbank.com, 2019). Thus, risk estimated is going to be at 6%.

Current landing rate in New Zealand is 0,5% due to COVID-2019. It was cut from 1% to 0,5% on 16th of March ((New Zealand Interest Rate | 1918-2020 Data | 2021-2022 Forecast | Calendar, 2020).

Next step required – calculate discount rate.

The formula for discount rate is following:

$$i = (1 + j)(1 + k)(1 + m) - 1,$$

where i – discount rate,; j – inflation (expected inflation); k – risk; m – lending rate.

For the year 2020 it is going to be:

i2020 = (1,0194 x 1,06 x 1,005) – 1 = *0,086*

For the year 2021 it is going to be:

i2021 = (1,0202 x 1,06 x 1,005) – 1 = *0,867*

For the year 2022 it is going to be:

i2022 = (1,0202 x 1,06 x 1,005)– 1 = *0,867*

Therefore, now it is possible to calculate Net Present Value, Payback Period and Profitability Index. First step is to find Discount Cash Inflow.
Discounted Cash Inflow is used to evaluate businesses' value. It represents the amount an investor would like to be paid for an investment, given a required discount rate (Discounted Cash Flow DCF Formula - Guide How to Calculate NPV, 2020).

Following calculations of discount rate Discounted Inflow (DCF) can be found. It is calculated with formula:

DCF Zyear = Net Profit Zyear / $(i\ Zyear)^n$

DCF 1st year = 219 802,7 / 1,086 = *202 396,6 NZD*

However, it case when we have different rate during the period DCF have to be calculated accordingly to the following pattern:

DCF Nyear = Net Profit Nyear / (i Zyear x i Yyear x N year)

Thus, DCF fot 2nd and 3rd year can be calculated:

DCF 2nd year = 315 323,96 / (1,086 x 1,087) = *267 114,6 NZD*

DCF 3rd year = 323 897,2 / (1,086 x 1,087 x 1,087) = *252 416,8 NZD*

Average DCF = (DCF 1st year + DCF 2nd year + DCF 3rd year) /3 = (202 396,6 + 267 144,6 + 252 416,8)/3 = 240 642,7 NZD

Net Present Value (NPV) is the difference between DCF and Initial Investment. It is used for capital budgeting and investment analysis of profitability

and attractiveness of international project (Net Present Value (NPV) - Definition, Examples, How to do NPV Analysis, 2020).

It is calculated with the following formula:

NPV = (DCF 1st year + DCF 2nd year + DCF 3rd year) – Investment = (202 396,6 + 267 144,6 + 252 416,8) – 630 718,48 = *91 208,92 NZD.*

Therefore, NPV is **positive** and it means that investor will make profit. Payback Period (PP) is a part of the international investment projects' attractiveness. It refers to the time required to pay back the funds expected in investment, or break-even (What is a Payback Period? - Definition | Meaning | Example, 2020).

It is calculated with the following formula:

PP = Investment / Average DFC = 630 718,48 / 240 642,7 = *2,6*

It means that less than 3 years (**2,6 * 12 = 31,2 month**) to pay back the initial investment.

Profitability Index is calculated to decide whether International Project should be accepted or not (Profitability Index - Learn How to Calculate the Profitability Index, 2020).

$$PI = \Sigma \frac{P}{(1+i)}_n \; / \; I;$$

$$PI = \left(\frac{219\,802,7}{(1+0,086)} + \frac{267\,114,6}{(1+0,086)(1+0,087)} + \frac{252\,416,8}{(1+0,086)(1+0,087)(1+0,087)} \right) / I$$

= (202 396,6 + 267 114,6 + 252 416,8) / 630 718,48 = *1,15.*

If Profitability index is higher than 1, it means that international project should be accepted.

Therefore, the international investment project described above should be accepted, since PI of the project is **1,15.**

CONCLUSIONS AND PROPOSALS

Today, New Zealand can rightfully be proud of its well-developed commercial infrastructure and the high quality of professional services, including banking and legal.

New Zealand attracts international investors with stability, predictability and transparency. The country ensures investment safety thanks to well-defined economic laws; it takes 1st place in the world in terms of investor protection (World Bank, World Business Report 2011). The state has a stable macroeconomic basis and is among the twenty most developed economies in the world. Investors are attracted by low inflation, an independent monetary policy, and a price stability program. However, in New Zealand there is no control over exchange rates or the repatriation of capital.

New Zealand is on the OECD White List as a jurisdiction that has sufficiently adopted tax standards and information exchange requirements. And, for example, Switzerland was in the "gray" list of the OECD.

At the same time, New Zealand has an ideal international reputation - almost like Britain. In New Zealand, the British legislation was copied, and a company with registration in New Zealand is not looked so obliquely as with a “registration”, for example, in Belize.

New Zealand welcomes foreign direct investment and contributes to their investment in the country's economy. Thus, an enterprise owned by foreigners is not subject to an additional tax according to any additional criteria or performance indicators. According to the New Zealand State Statistics Agency, as of March 2019, total foreign investment in the New Zealand economy amounted to $ 429.2 billion. The largest foreign investor is Australia. Australian investments dominate New Zealand's banking and insurance sectors.

New Zealand is top country to start business in. All the procedures are easy and can be even complete via Internet. Furthermore, after all the calculations are done it can be said that café will be profitable business to run. NPV indicator is

positive, which means that the business will bring profit. Next indicator – PP – states that initial investment is going to be paid back in just 2,6 year, which is good, since it was decided to give it 3 years to pay back. And last, but not least, Profitability index. In this case it was calculated at level of 1,15. It means that International Investment Project should be accepted, since it is higher than 1. Consequently, according to all the information mentioned above New Zealand is perfect place to invest in and to start a new business in and it is suggested for investor to accept International Investment Project.

APPENDIXES

APPENDIX A Amount of export of services by sector

Service type	Year			
	2017	2018	2019	2020
	22 92	24 69	25 43	25 81
Total services[(1)]	1	0	2	5
Maintenance and repair services nei	305	304	340	446
Transportation	2 878	3 162	3 362	3 399
	14 12	15 34	15 80	15 91
Travel	2	0	6	7
Business travel	955	1 073	1 161	1 319
	13 16	14 26	14 64	14 59
Personal travel	7	7	4	8
Education-related travel	3 975	4 267	4 402	4 447
Health-related travel	12	12	12	12
			10 23	10 14
Other personal travel	9 181	9 989	1	0
Construction services	38	39	22	31
Insurance and pension services	199	236	153	57
Financial services	757	825	869	780
Charges for the use of intellectual property nei	606	724	815	796
Franchise and trademark licensing fees	152	191	267	243
Revenue/payments from franchise rights	C	C	C	C
Other royalty payments received/made	C	C	C	C
Licences for the use of outcomes of research and development	C	20	C	24
Licences to reproduce and/or distribute computer software	331	380	419	422
Licences to reproduce and/or distribute audiovisual and related products	C	133	C	107
Licences to reproduce and/or distribute audiovisual products	C	133	C	107
Audiovisual broadcast rights	C	C	C	C
Royalties for musical works	12	C	16	C
Telecommunication, computer, and information services	1 047	1 048	1 122	1 274
Telecommunication services	130	109	118	127
Internet access and telecommunication services	C	C	C	C
Other telecommunication services	C	C	C	C
Computer services	869	908	967	1 104
Computer software	520	549	583	708
Non-customised software online	61	58	93	234
IT design and development services	459	491	490	474
Other computer software	349	359	384	397
Other data processing	1	2	C	C
IT technical consulting and support services	183	189	210	228
Hosting and IT infrastructure provisioning	127	142	156	136
IT infrastructure and network management	38	26	C	C
Information services	48	31	38	42
News agency services	C	C	C	C
Other information services	C	C	C	C
Data information services	44	30	36	41

Subscription to newspapers and periodicals	C	C	C	C
Other business services	1 940	2 116	2 188	2 456
Research and development	167	182	163	157
Professional and management consulting services	444	452	489	494
Legal, accounting, management consulting, and public relations	320	333	376	372
Legal services	151	158	177	177
Accounting, auditing, bookkeeping, and tax consulting services	102	105	110	108
Business and management consulting and public relations services	67	70	89	87
Advertising, market research, and public opinion polling	124	119	113	122
Technical, trade-related, and other business services	1 328	1 482	1 537	1 805
Architectural, engineering, scientific, and other technical services	198	183	169	219
Architectural, scientific, and other technical services	34	35	35	43
Engineering services	164	148	134	176
Waste treatment and de-pollution, agricultural, and mining services	C	C	C	C
Waste treatment and de-pollution	C	C	C	C
Services incidental to agriculture, forestry, and fishing	4	C	C	C
Services incidental to mining, and oil and gas extraction	1	C	C	C
Operating leasing services	C	C	C	C
Operational leasing services	C	4	C	C
Fishing vessel charter fees	--	C	--	--
Office equipment or ICT equipment rental	C	C	C	C
Trade-related services	238	258	309	409
Other trade-related services	2	--	C	C
Commission agent services for trade in goods	236	257	C	C
Other business services nei	879	991	1 022	1 147
Management fees between you and any foreign parent or subsidiary	637	729	774	872
Printing services	C	4	C	C
Warranty claims	128	148	143	147
Placement of personnel	C	C	C	C
Photographic services	..	..	2	..
Translation, editing, and interpretation	C	11	C	C
Conference presentation or organisation	C	--	C	C
Other miscellaneous services	96	90	86	111
Property management services	C	C	C	C
Consultancy services nec	--	..	..	--
Personal, cultural, and recreational services	779	656	504	380
Audiovisual and related services	688	568	366	236
Audiovisual services	688	568	366	236
Motion-picture production services	C	412	227	C
Radio, TV, and other artistic services	C	157	138	C
Other personal, cultural, and recreational services	92	88	138	144
Health services	2	C	2	C

Education services	34	33	51	49
Heritage and recreational services	25	C	43	C
Performance and sports	C	C	2	C
Other cultural and recreational services	C	C	41	C
Other personal services	30	38	42	40
Government goods and services nei	251	239	250	279

APPENDIX B Amount of import of services by sector

Service type	Year			
	2017	2018	2019	2020
Total services[(1)]	17 586	18 705	20 807	21 772
Maintenance and repair services nei	313	363	455	453
Transportation	3 974	4 366	4 905	4 958
Travel	5 881	6 354	6 673	6 601
Construction services	57	60	49	47
Insurance and pension services	1 129	1 260	1 605	1 753
Financial services	504	533	532	487
Charges for the use of intellectual property nei	1 268	1 298	1 316	1 414
Franchise and trademark licensing fees	515	511	500	554
Revenue/payments from franchise rights	99	86	79	84
Other royalty payments received/made	415	425	422	470
Licences for the use of outcomes of research and development	36	37	54	45
Licences to reproduce and/or distribute computer software	310	339	367	391
Licences to reproduce and/or distribute audiovisual and related products	408	411	394	424
Licences to reproduce and/or distribute audiovisual products	408	411	394	424
Audiovisual broadcast rights	C	C	C	C
Royalties for musical works	C	C	C	C
Telecommunication, computer, and information services	1 081	1 107	1 323	1 487
Telecommunication services	136	104	145	152
Internet access and telecommunication services	28	21	22	C
Other telecommunication services	108	83	123	C
Computer services	868	929	1 100	1 247
Computer software	236	287	385	464
Non-customised software online	41	53	73	122
IT design and development services	195	234	312	342
Other computer software	632	641	715	783
Other data processing	9	7	7	7
IT technical consulting and support services	396	378	445	483
Hosting and IT infrastructure provisioning	148	161	165	192
IT infrastructure and network management	79	94	98	101
Information services	76	74	78	88
News agency services	C	C	C	2
Other information services	C	C	C	86
Data information services	C	C	C	45
Subscription to newspapers and periodicals	47	39	39	42
Other business services	3 091	3 040	3 594	4 179
Research and development	55	76	98	92
Professional and management consulting services	926	1 011	1 394	1 777
Legal, accounting, management consulting, and public relations	410	453	560	595
Legal services	84	90	82	76
Accounting, auditing, bookkeeping, and tax consulting services	134	141	150	155

Business and management consulting and public relations services	191	222	329	364
Advertising, market research, and public opinion polling	516	557	834	1 183
Technical, trade-related, and other business services	2 110	1 952	2 101	2 310
Architectural, engineering, scientific, and other technical services	247	203	258	243
Architectural, scientific, and other technical services	103	84	101	93
Engineering services	144	119	158	150
Waste treatment and de-pollution, agricultural, and mining services	26	19	28	C
Waste treatment and de-pollution	C	C	C	5
Services incidental to agriculture, forestry, and fishing	C	--	C	C
Services incidental to mining, and oil and gas extraction	25	C	C	31
Operating leasing services	378	297	327	C
Operational leasing services	291	257	315	C
Fishing vessel charter fees	C	C	C	C
Office equipment or ICT equipment rental	C	C	C	8
Trade-related services	276	237	311	401
Other trade-related services	16	16	20	22
Commission agent services for trade in goods	260	221	292	380
Other business services nei	1 182	1 196	1 176	1 305
Management fees between you and any foreign parent or subsidiary	1 015	1 041	1 030	1 139
Printing services	6	6	7	7
Warranty claims	C	C	C	C
Placement of personnel	12	8	C	C
Photographic services	..	..	1	..
Translation, editing, and interpretation	1	C	C	2
Conference presentation or organisation	15	17	16	15
Other miscellaneous services	54	43	31	49
Property management services	3	3	5	5
Consultancy services nec	C	..	..	C
Personal, cultural, and recreational services	90	120	129	160
Audiovisual and related services	13	31	27	31
Audiovisual services	13	31	27	31
Motion-picture production services	C	C	19	C
Radio, TV, and other artistic services	C	C	8	C
Other personal, cultural, and recreational services	77	89	103	129
Health services	C	34	C	C
Education services	20	28	36	44
Heritage and recreational services	C	10	C	C
Performance and sports	C	--	C	C
Other cultural and recreational services	12	10	11	16
Other personal services	14	17	26	27
Government goods and services nei	199	205	227	233

APPENDIX C My Food Rules

Ministry for Primary Industries
Manatū Ahu Matua

You have completed the tool. Your outcome is:

My Food Plan (incomplete)

Review your outcome

You need to register a Custom Food Control Plan (FCP) under the Food Act 2014. Given the specific processes you have identified doing in your food business, your plan will be incomplete and you will need to develop some procedures of your own before you can register your plan. There are instructions, and a list of the processes you will need procedures for, in the first page of your plan. If you don't want to use 'My Food Plan', you can develop your own Custom FCP.

Guide to help develop your custom food control plan (https://www.mpi.govt.nz/dmsdocument/12843-custom-food-control-plan/loggedin)

Contact MPI if you need any help at:

info@mpi.govt.nz

0800 00 83 33

These are your next steps

Step 1: Print your plan or programme

We've compiled some rules for you to follow in your business. You will need to read and apply these rules in your business so you know you are making safe and suitable food. Make sure to download or print your plan or programme.

We also have guidance on saving or editing your plan.

How to save your plan as a PDF (/dmsdocument/34797-how-to-save-your-plan-as-a-pdf)

How to edit your plan as a PDF (/dmsdocument/34794-how-to-edit-your-plan-pdf)

Print your outcome

Step 2: Find a verifier to check your business

A verifier is someone that checks that you're on the right plan or programme and are following the right food safety rules. Make sure you get a letter from your verifier as you will need that to register your business.

Contact name	Phone number	Email	Travel cost included
Technical Manager	(09) 557 4200	auditing@allsystemsgo.co.nz	Yes
Shane Hopgood	(09) 846 8492	admin@assuredaudits.co.nz	Yes
Emma Jenkins or Nicole Wallace	508 00 11 22	food@asurequality.com	Yes
Ian Shaw	(03) 365 1667	i.shaw@auditingsolutions.co.nz	Yes
Technical Manager	0800 583 965	Sales.NZ@bsigroup.com	Yes
Eleanor Cahill	(09) 526 4612	EleanorCahill@eurofins.com	Yes
Sneh Lata	027 298 8447	sneh.lata@fsqlnz.com	No
Stephanie Carbone	(09) 481 0157	scarbone@nsf.org	Yes
Margaret Sturm	(07) 889 3500	info@qasltd.co.nz	Yes
Jeremy Carter	(09) 635 0240	NZ.agri.foodauditing@sgs.com	Yes
Phillipa Munro or Chris Dunn	(09) 580 6752 (Phillipa) or 027 263 2437 (Chris)	phillipa.munro@telarc.co.nz or chris.dunn@telarc.co.nz	Yes

Step 3: Register your food business

Choose the registration authority and follow the instructions to register your business, or contact your local council.

Your registration authority is:

Auckland Council (http://www.aucklandcouncil.govt.nz/)

Step 4: Get verified

Once you have found a verifier and got your business up and running, now is the time to get verified. To find more information about what happens in a verification, read our guide to verification.

Check this guide to find out more about verifications and likely costs **(dmsdocument/15721-how-long-does-verification-take)**

My outcome details

My plan

My Food Plan

This is a pre-evaluated document.

If you add any procedures to this plan, or make any changes to the procedures provided, they must be evaluated. This is a legal document.

11 February 2019

New Zealand Food Safety
Ministry for Primary Industries
Manatū Ahu Matua

Processes and procedures requiring evaluation

My business

Thanks for downloading your 'My Food Plan'. You've identified that you use one or more of the following processes in your food business:

- UHT and aseptic processing to preserve food
- canned food or drink that have a long shelf life
- high pressure processing to extend the shelf-life of food
- apply radiation to food or drink to kill bad bugs
- novel or unique processes

We don't currently have procedures to help you ensure that you make safe and suitable food or drink when using these processes.

You will need to develop your own processes for the procedures listed above and have these evaluated.

- Guide to help develop your custom Food Control Plan (https://www.mpi.govt.nz/dmsdocument/12843-custom-food-control-plan/loggedin)

Contact MPI if you need any help.

info@mpi.govt.nz

0800 00 83 33

Instructions

My business

How to use this Plan

This plan tells you and your staff what you need to do to comply with food safety and suitability law. It tells you/your staff what your verifier will look for when they visit your business, and where you need to keep records. To help you make sure that you are following the relevant rules and are keeping the right records we have placed icons throughout this document:

The **records** you must keep

Something important to think about

Each card has 3 sections: Know, Do and Show.

Know has general information about why this topic is important to food safety and gives ideas for how you can comply with food safety.

Do outlines what you must do to comply with the food safety law.

Show outlines what your verifier will ask you to demonstrate or the **records** they will expect to see.

Sometimes things go wrong, and your food or drink might become unsafe or unsuitable. You need to be able to identify when something has gone wrong, and be able to fix it.

You need a procedure in place and you need to keep records. These records are listed throughout the document. Follow the ***'When something goes wrong'*** card.

Business details

My business

Fill out your business details below

Business Details	
Legal name	
Trading name	
Postal address	
Telephone	
Email	
Location(s)	
Address site *(1)* *(premises where food business operates)*	
Water supply	

Additional sites

(continue on a separate sheet if needed and attach) List below any other premises that are used in connection with your business (e.g. premises used for storage or preparation of food). These activities and sites will also be covered by this Plan. You need to identify the source of the water supply.

Address site *(2)*	
Activities/water supply source	
Address site *(3)*	

Activities/water supply source	
Address site *(4)*	
Activities/water supply source	
Operator: The operator is the owner or other person in control of the business. If the Plan applies to more than one food business, the operator is the person responsible for the Plan.	
Name	
Physical address *(Business or residential)*	
Telephone	
Email	
Operator of each business *(if plan applies to more than one food business)* Add additional rows as necessary.	
Name	
Physical address *(Business or Residential)*	
Telephone	

Email	
Day-to-day manager *(write 'as above' if the day-to-day manager is the operator)* The day-to-day manager is the person who has the overall responsibility to make sure that the Plan is being followed and the appropriate checks and **records** are completed.	
Name and/or position	
Telephone	
Registration authority	
Registration authority	Ministry for Primary Industries
Contact person	Approvals Operations Group
Address	Ministry for Primary Industries TSB Bank House, 147 Lambton Quay PO Box 2526, Wellington, New Zealand 6140
Telephone	04 894 2550
Email	approvals@mpi.govt.nz
Verifier	
Verification agency	
Contact person	
Address	
Telephone	
Email	

Business layout

My business

- You must make sure that the design and physical location of your business allows you to make safe and suitable food.
- You need to draw a map and floor plan that includes: (as applicable)
  - your building,
  - the buildings surrounding it,
  - what happens in the different areas on your map, including your food preparation areas (e.g. your kitchen),
  - what happens in your buildings, including non-food activities,
  - what happens in the different areas of the building,
  - any non-food activities being conducted in the same or neighbouring buildings/properties that might affect food safety may need to be included in your map of your business.

Layout - Inside of your premises

This could be a hand drawn plan or photograph

Layout - Outside of your premises

This could be a hand drawn plan or photograph

Managing risks near your business

My business

Use this template to note any activities being conducted in your building, or at neighbouring buildings/properties that might affect food safety or suitability in your business, and anything you/your staff do to manage risk.

Risk to food safety or suitability	How we manage the risk
Example: Spray residue from the neighbouring property.	*Example: Keep doors, windows, vats and tanks closed when possible.*

Risk to food safety	How we manage the risk

My business

Taking responsibility

K

Know

What do you need to know?

- You/your staff don't need to be food safety experts but you/your staff do need to know enough to make good food safety and suitability decisions for your business. This plan will help you to do that.
- It is your responsibility to make sure the food and drink your business produces, handles and/or sells is safe and suitable.
- Overall, you as the owner are responsible, even if you employ people to help manage food safety and suitability.
- You need to know who is responsible for completing key jobs in your business.

- If you contract out part of the processing of your food, or drinks, you need to make sure that everyone involved knows who is responsible for the safety and suitability of your product at each stage, and that your product can be traced.
- Not all the sections in this plan may be applicable to your business - you don't have to follow rules that don't apply to you (for example, if you don't pasteurise food you don't need to follow the rules about pasteurising food). If you are unsure about whether a section applies to your business seek advice from a consultant, your verifier or your registration authority.

Food safety vs. food suitability

- Food safety is about preventing food from causing illness or harm. Food and drink can be unsafe if it contains certain 'hazards'. There are 3 types of hazards:

1. Biological (bugs): Certain bugs can make people sick if they're in or on food or drink.
2. Chemical: Many chemicals can make people sick if they're in or on food or drink.
3. Physical (foreign): Glass, metal or other sharp objects can sometimes get into food or drink and cause harm.

- Food suitability is about making sure your food and drink meets customer expectations and doesn't contain anything unexpected or offensive.
- Taking responsibility for food safety means understanding the possible hazards that could make your food or drink unsafe and taking steps to:
    - keep bugs, harmful chemicals and foreign matter out,
    - reduce bugs to safe levels,
    - eliminate or remove bugs.
- Taking responsibility for food suitability means:
    - only using foods or ingredients that are fit for purpose,
    - labelling food and drink correctly,
    - making sure any claims about your food or drink are true, and allowed.

Keeping customers safe

- Following the rules will help your business as:
    - about 86% of people that get sick from food don't report it - but they still look for someone to blame,
    - about 75% of people don't think that they got sick from food they made themselves, and blame someone that sold food to them,
    - most people believe it was one of the foods they last ate that made them sick - when it actually could have been something they ate days or weeks ago,
    - about 40% of people that get sick will not buy the food they blame for making them sick again (and might tell their friends not to buy it),
    - if someone reports sickness or other problem (e.g. labelling, foreign matter) a Food Safety Officer investigates their complaint - which means you might be visited even if you didn't make anyone sick.

Keeping records

- Keeping good records will help you prove that your food or drink didn't make people sick, and that your food or drink is what you say it is.
- There are some records you need to keep, others you might like to keep for good practice. Where you aren't required to keep records it is your choice whether you wish to keep records or other evidence to keep track of how well you are managing food safety and suitability.

- Without records it will be harder to prove your food or drink is safe and suitable which could lead to:
    - recalling food and drink,
    - stopping sale of food and drink,
    - having to make certain improvements to your processes or practices,
    - fines or prosecution.

All of the above can cost your business in time, money or reputation.

Advice and guidance

- There is helpful guidance and tools available on the MPI website (mpi.govt.nz (http://www.mpi.govt.nz)).
- You can get advice and guidance from others, for example consultants, verifiers, and relevant industry groups.
- Consultants can design systems, processes and procedures for you - but can't take away your responsibilities. It is part of their job to help you understand how to make good decisions about food safety and suitability - especially when things don't go to plan.
- Verifiers can provide advice and coaching (options and examples) about how you can make sure your business is making safe and suitable food but they cannot make your decisions for you.

D

Do

What do you need to do?

- Assign someone who is responsible for making sure the plan is followed: (tick as appropriate)
    - ☐ day-to-day manager, or
    - ☐ delegated person.
    - Name: _____
- Always follow your plan.
- Any contractors or processors that you use must have the appropriate registered plan to ensure that any food or drink that they handle remains safe and suitable.
- You must have enough trained and competent staff to make, serve and sell safe and suitable food and drink.
- Get verified. You must give your verifier access to facilities and records they need to perform their duties.
- Keep a copy of all documents or records required for at least 4 years.
- All records must:
    - be accurate,
    - easy to read,
    - identify what was done,
    - when it was done,
    - who did it.
- Make your records easily accessible so they can be provided within 2 days when requested.

S

Show

What do you need to show?

- Your verifier might ask:
  - whether you have given certain food safety responsibilities to other people (including contract processors) and, if so, how you know they are doing a good job of keeping food safe and suitable,
  - whether there have been any changes to what you do, make or sell since the last time they were there,
  - to see your records.

My business

Checking the plan is working well

K

Know

What do you need to know?

- It is your responsibility to regularly check that food safety and suitability is being well managed in your business.
- What to check and how often, depends on the effect of something going wrong in your business. You should check the most important things (e.g. thermometers) most often.
- A verification by a company you supply to also counts as an internal check, but you must still conduct regular checks yourself.
- You should check:
  - that people are doing what they need to,
  - the procedures you have put in place are being followed and are effective,
  - your facilities and equipment remain suitable for the food and drink activities at your business.
- You or one of your staff must be your own internal verifier.

Why is self-checking important?

- You are responsible for your business and the food or drink that you produce. If you wait for someone else to tell you that something has gone wrong, it may become costly and your food or drink may make people sick.
- Check the plan is working well by (for example):
  - checking whether staff are carrying out key food safety behaviours (e.g. washing hands etc.),
  - checking records are being completed and kept,
  - looking through records to check that things are working as expected,
  - reviewing ***'When something goes wrong'*** information and checking that steps have been taken to prevent problems from happening again,
  - running food safety quizzes with staff,
  - using the 'Show' sections in this template to ask the same questions or check the same things that your verifier would ask or look at,
  - testing the environment or foods for certain bugs or chemicals to show procedures (e.g. cleaning and sanitising) are effective.

Some notes about testing:

- There are specific requirements for testing in some situations (e.g. self-supply water).

- There are also rules about certain limits for bugs or chemicals in the Australia New Zealand Food Standards Code http://www.foodstandards.govt.nz/code/Pages/default.aspx (http://www.foodstandards.govt.nz/code/Pages/default.aspx). A limit doesn't mean you always have to test the food for that bug or chemical.
- If you are thinking about using sampling and testing to show your plan is working well, this shouldn't be the only check that you do. It is not possible to test your way to food safety.
- Testing can be a useful tool, but isn't the only way of showing that your plan is working. For example:
  - if testing results find harmful bugs it might mean some part of your process is not working well and corrective action is required, but
  - a negative result may not prove that your plan is working perfectly (or that the food and drink is safe). Bugs, in particular, are not usually evenly distributed in food. It's possible to test some food or drink and get a negative result, when another part of the food in the same batch has high levels of harmful bugs.
- If you want to include testing as one of your checks, it is often more effective to test the environment rather than final foods or drinks.
- If you use sampling and testing as part of your procedure for checking, it is highly recommended that the testing plan is developed by an expert. If you don't have an expert in your business, a consultant, your verifier or MPI can provide information about putting together a sampling and testing plan.

D

Do

What do you need to do?

- You must set up procedures for regularly checking that you and your staff are making safe and suitable food and meeting your requirements and responsibilities under the *Food Act 2014*.
- Follow the procedure on ***'When something goes wrong'*** if your self-checks identify mistakes or actions that could have made food or drink unsafe or unsuitable.

S

Show

What do you need to show?

- Show your verifier:
  - how you check that your procedures are working well,
  - results of the checks you have made,
  - results of any tests you have carried out.

My business

Training and competency

K

Know

What do you need to know?

- You and your staff have different training needs. You must know what training you, your staff and visitors need, to produce safe and suitable food and drinks.

- Not all staff and visitors need training in all things but they must know how to keep food and drink safe and suitable when doing their particular job.
- If you have staff you will need to train them:
  - before you start making and selling food or drink,
  - before you introduce or change a procedure, or staff,
  - whenever you think you or your staff need it (e.g. after something has gone wrong).
- All staff and visitors need to understand the training they are given.
- All staff need to be confident that they know exactly what to do and follow the plan to make sure safe and suitable food or drink is produced.
- If you're a one person business you can use online tools, food safety courses, or seek help from a consultant.

Why is training important?

- Everyone has a role to play in keeping food and drink safe and suitable. You and your staff need to know that what you/they do can affect food safety - especially if something doesn't happen as it normally would or should.

Not all of the things that affect food safety are 'common knowledge' so it pays to be trained properly so you or your staff don't accidentally get it wrong.

Staff might need special training if they are making or handling ready-to-eat foods so they keep food safe and suitable.

D

Do

What do you need to do?

- The ☐ day-to-day manager or ☐ delegated person (Name:_____) (tick as appropriate) must make sure that all staff and visitors are trained so they know how to meet the rules about:
  - washing hands,
  - wearing clean clothing,
  - reporting sickness,
  - dealing with foods or drinks that could make people sick,
  - cleaning and, if required, sanitising,
  - keeping foods separate in the food preparation area (including managing allergens and managing chemicals and poisons),
  - other procedures which are specific to your business,
  - what to do when something goes wrong.
- Train staff:
  - before they start working in your business,
  - when a procedure is introduced or changed.
- Keep a record of training that you, your staff or visitors have completed, and when they completed it.
- All visitors (e.g. delivery people, contractors etc.) must keep food or drink safe while they are in your food business.

S

Show

What do you need to show?

- Show your verifier:
  - a record of how and when staff were trained to follow the plan. Include:
    - who was trained,
    - when they were trained,
    - the parts of the plan you covered,
    - signatures from the trainer and trainee.

My business

Places and equipment

K

Know

What do you need to know?

- When choosing places and equipment for your business there are some things you should consider, like:
  - what the place has been previously used for,
  - that rooms and equipment can be easily cleaned and maintained,
  - that there is adequate lighting, ventilation and services (e.g. water and electricity),
  - that equipment is designed for food use and for the process you are intending to use it for.

Why is choosing good places and equipment important?

- Places and equipment are the foundation of your business, and the choices you make determine how hard you and your staff will have to work to know your food and/or drink is always safe and suitable.
- It's easy to overlook things that can result in food and drink being contaminated and people getting sick. For example:
  - a light or bottle breaking and spreading glass into food or drink,
  - crops absorbing heavy metals or chemicals in soil from a previous land use (e.g. chemical stores, timber processor etc.) into their root systems and leaves,
  - dust, dirt or chemicals carrying bugs getting into food and drink from neighbouring properties,
  - buildings constructed from materials that could be a source of bugs, chemicals or foreign matter getting into your food or drink.
- It's best to source equipment especially designed for food and drink use and for the process you are intending to use it for.
- It's best to choose places and equipment that prevent as many food safety risks as possible.

D

Do

What do you need to do?

- Manage any food safety/suitability risks associated with places and equipment.
- Check previous use of land and buildings, and only use areas that will allow you to make safe and suitable food and drink.
- If your neighbours do things that could cause your food or drink to be unsafe or unsuitable, work out how to minimise the chance that this could happen.

- Only operate out of buildings that have enough space to accommodate the number of staff you plan to have working there, and allow for a good workflow.
- Design your workflow so you can safely move around your workspace.
- Buildings, fittings, fixtures or equipment must be made of materials that won't be a source of bugs, chemicals or foreign matter getting into your food or drink where possible, or work out how to minimise or eliminate the chance that food could become contaminated from these sources.
- Ensure all areas where food or drink will be processed or stored can be easily cleaned and sanitised (when appropriate).
- Limit the amount of dust, dirt, fumes or pests that can get into buildings used for handling, processing or storing food and drink.
- Provide places for storage of cleaning chemicals and maintenance compounds away from food and drink.
- Make toilets and places to wash hands available close to food handling areas.
- Provide for rubbish areas away from food and drink processing/preparation areas.
- You must have equipment for measuring control points (e.g. thermometers for checking fridge/chiller temperatures or hydrometers for checking sugar levels in wine). Your equipment must be accurate and working properly.
- Food in vending machines must be kept safe.

S

Show

What do you need to show?

- Your verifier might ask:
  - how you know the location hasn't previously been used for something that will make food unsafe,
  - what you do to manage risks from activities of your neighbours,
  - why you chose the equipment you are using,
  - how you know the building, fixtures, fittings and equipment aren't a risk to the safety or suitability of your food.
- Your verifier will observe workflow and whether staff can easily work and maintain good personal hygiene.

My business

Suitable water

K

Know

What do you need to know?

- Suitable water must be:
  - safe to drink if it is used for food and drink preparation, washing food contact surfaces/ equipment, and for staff to wash their hands,
  - clean and fit for purpose when used for any other activities in growing or making food.
- You need to have enough clean water available:
  - to clean your food and drink preparation areas, equipment and utensils, and
  - for you, your staff and visitors to wash your/their hands.

Why is it important to use suitable water?

- Water can carry harmful bugs and chemicals that can make people sick. These might be because the water is contaminated at the source, or because water pipes and storage containers become contaminated.
- It's important to consider how you/your staff use water in your business, and make sure that the water is not going to contaminate your food or drink. If you use a council or registered water supply most of this is done for you.

If you use self-supply water

- You/your staff will need to prove it is suitable for use by having it tested at an accredited lab (there is information on the MPI website about these).
- You/your staff will need to know where near-by activities and naturally occurring chemicals could make your water supply unsafe.
- Keep water tanks:
  - clean and in good condition to stop the build-up of sediment, and
  - covered to stop animals, birds and dirt from contaminating water.
- You may need to install, operate and maintain (e.g. replacing filters) a water treatment system, following the manufacturer's instructions, to ensure water is suitable for use with food and drink.
- You will need to treat roof, surface or ground water using filtration, chlorination or UV disinfection to make it suitable for use.
- Self-supply water sources may be subject to other legislation as well.

For ground water supply only

- Bores should be designed and maintained so they are protected from surface contamination.

For roof water supply only

- Additional risks to contamination of your water can be reduced by:
  - collecting water only from clean roofs and gutters made from safe materials (e.g. no lead based paints, bitumen, exposed timber or copper gutters),
  - putting screening gutters up, removing overhanging branches and vegetation, and mounting aerials and satellite dishes away from water collection areas,
  - installing a first flush device (a device which diverts the first flush of water when it rains).

D

Do

What do you need to do?

- Select where you get your water from: (tick where you get your water from)
  - ☐ registered supplier (name of supplier): _____
  - ☐ roof water supply
  - ☐ surface or insecure ground water supply
  - ☐ secure ground water supply (a supply that meets the definition of secure is in the 'Drinking Water Standards for New Zealand)*
  - ☐ a supply which is currently subject to a Public Health Risk Management Programme*

*You don't need to do anything more if you choose to use one of these programmes.

- For water for making food or drink, hand washing and cleaning, either:
  - use a potable (council/registered) water supply, or
  - test your roof, surface or ground water supply at least once every year in an accredited lab to ensure that it meets the following limits:

Measurement	Criteria
Escherichia coli	Less than 1 in any 100 ml sample*
Turbidity	Must not exceed 5 Nephelometric Turbidity Units
Chlorine (when chlorinated)	Not less than 0.2mg/l (ppm) free available chlorine with a minimum of 20 minute contact time
pH (when chlorinated)	6.5 – 8.0

**Escherichia coli* testing must be performed by an accredited lab.*

- Test any new supply of water other than those marked with an * in the tick box options above before using it in food or drink production areas.
- Test roof, surface or ground water supplies within 1 week of knowing about a change to the environment or of activities that may affect the safety and suitability of the water.
- Surface and (insecure) ground water intakes must be:
  - at least 10m away from livestock,
  - at least 50m away from potential sources of contamination including silage stacks, offal pits, human and animal waste, potential chemical stores and tanks.

All water supplies

- Only use water tanks, containers, pipes, outlet taps and treatment systems for any water supplies on site that are suitable for drinking water (or are 'food-grade'). Regularly check and maintain these.
- Clearly mark outlet taps, tanks, and pipes that do not contain clean water. These must not be used for food or drink processing, hand washing and cleaning.
- You must have a system for managing cross contamination, dead ends and backflow.
- If your water supply becomes unsafe (or you're advised by your supplier it is unsafe):
  - don't use it, or
  - for chemical or physical contamination seek advice from your verifier or a water expert, or
  - for contamination with bugs:
    - boil it for at least 1 minute before use, or
    - disinfect it with chlorine before use, or
    - use another supply of water which you are sure is safe (e.g. bottled water).
- Throw out any food or drink which has been contaminated by unclean/unsuitable water.
- You must record the water source for each of the locations you operate in.

S

Show

What do you need to show?

- Your verifier will:
  - ask how you know your water is fit for purpose,
  - ask you about how you check and maintain water equipment and facilities,
  - ask to see your records of water sources for each of your locations,
  - how you manage contamination or cross contamination of water supply.

For self-supply water only

- Your verifier will:
  - ask to see a record of test results for any roof, surface or ground water supplies that are used in the food or drink preparation area, for cleaning equipment, or for hand washing,
  - ask what near-by activities could affect the safety of your water,
  - ask you to show them how you know any water treatment system is working properly.

Cleaning and maintenance

Personal hygiene

K

Know

What do you need to know?

- Ways to protect food and drink from contamination from people include:
  - washing hands,
- not working with food or drinks when sick with anything that causes vomiting, diarrhoea or jaundice,
- wearing clean clothes (e.g. aprons, overalls, boots, hats and hairnets).
- Washing your hands helps to keep bugs out of the food and drink preparation area. Regular hand washing helps prevent contamination of your food or drink.
- Personal hygiene is important even if your workplace is located on the road or in the middle of a field.
- You/your staff should seek medical advice if you/they:
  - have jaundice, or
  - have vomited or had diarrhoea 2 or more times in a day, or
  - have been sick with a tummy bug for more than 24 hours.
- Staff who have had a tummy bug should not work with food until 48 hours after they feel better.
- If staff contaminate food or drink, you may have to reprocess, throw it out or have to recall it. See ***'Recalling your food or drink'***

Why is personal hygiene important?

- One of the most common ways bugs get into food or drink is from people - mostly from their hands.
- Regularly washing hands in soapy water for 20 seconds, rinsing and then drying them properly (using paper towels, single use cloths, or an air dryer) is one of the best and easiest ways to help prevent bugs getting into your food or drink.
- Uncovered cuts, sores and boils can spread bugs and make food unsafe and unsuitable, especially if they are weeping or infected.

If people are wearing gloves (whether to cover sores or for any other reason), they should wash their gloved hands or replace the gloves in all the same situations when ungloved hands should be washed.

- Harmful bugs can be transferred to food or drink through a sick person's faeces, vomit and other body fluids (e.g. blood and snot).

- Dirty clothing can contaminate food or drink, surfaces and equipment.

D

Do

What do you need to do?

- Wash your hands in soapy water for 20 seconds then dry thoroughly using paper towels, single use cloths, or an air dryer.
- Always have soap and paper towels, single-use cloths or an air dryer by the handwashing sink.
- You must keep your hand-washing area clean.
- You must wash your hands:
  - when entering the food and drink preparation areas,
  - before handling food and inputs,
  - between handling raw and cooked (or pasteurised) foods,
  - between handling foods that contain allergens and foods that don't contain allergens,
  - between handling cleaning products or chemicals and food,
  - after coughing or sneezing,
  - after using the toilet,
  - after using your phone,
  - after taking out rubbish,
  - after touching something you think is dirty.
- You must manage any cuts or sores by: (tick as appropriate)
  - ☐ completely covering any cuts, sores, or boils,
  - ☐ not handling food if cuts, sores, or boils are weeping or infected and can't be totally covered.

Manage sick staff

- Implement a sickness policy to ensure you or your staff don't work with food or drink when you/they are sick with an illness that can be passed on through food or drink.
- Any staff or visitors (including contractors and pickers) who have vomited, had diarrhoea or jaundice in the 48 hours before entering your business, or who develop these symptoms when on your premises, must immediately tell either the: (tick as appropriate)
  - ☐ day-to-day manager, or
  - ☐ delegated person.
  - Name:
- Staff must stay away from the food or drink making area until they are well if they have an illness they can pass on through food or drink.
- Staff that are sick may be able to complete tasks that do not come into direct contact with food or drink making areas.

Wear clean clothing

- Clean clothing (e.g. aprons, overalls, boots, hats and hairnets etc.) must be worn before handling food/drink or entering food preparation areas (this applies to contractors and visitors too).Either: (tick as appropriate)
  - ☐ staff wear their own clean clothing, or
  - ☐ I provide clean clothing for staff.
- Remove outer protective clothing (e.g. aprons etc.) before leaving the food or drink making area (e.g. to go to the toilet, outside etc.).

S

Show

What do you need to show?

- Your verifier will wash their hands when they enter your business to check that everything they need to wash their hands is there.
- Your verifier will ask:
  - who is responsible for making sure your hand washing area is fully stocked and cleaned,
  - how you know people are washing their hands when they should,
  - staff about when they wash their hands, and may ask them to show how they wash their hands,
  - what happens if someone has a tummy bug or gets sick,
  - check that everyone who handles food puts on clean clothing/aprons at the start of (or as required, during) each shift,
  - ask how you make sure clean clothing is worn,
  - ask you questions about your rules around clean clothing or any issues you have had.

- Show your verifier a written record of when staff were sick.

Cleaning and maintenance

Checking for pests

K

Know

What do you need to know?

- Pests such as mice, birds and insects can spread disease. They do this by picking up bugs from dirty items such as waste and transferring them to food and drink, and food or drink making equipment.

D

Do

What do you need to do?

- Check for and remove any signs of pests daily (e.g. droppings, empty full traps, dead insects).
- Clean and sanitise any affected equipment and areas that come into contact with food.
- Follow the procedure on what to do ***'When something goes wrong'*** if you find signs that a pest may be present in your food or drink business.

S

Show

What do you need to show?

- Show your verifier how you check for pests.

Cleaning and sanitising

K

Know

What do you need to know?

- Cleaning and sanitising are 2 different things:
  - cleaning removes dirt, grease and most bugs from surfaces,
  - sanitising kills harmful bugs left on clean surfaces.
- You need to know which parts of your business (surfaces and/or equipment) need to be cleaned, and which need to be cleaned and sanitised, and how often this needs to be done. This will depend on the type of food or drink you make or handle, how it is processed, and who will eat or drink it.
- Food and drink contact surfaces and equipment should be cleaned every day that it is used (it's best to clean as you go). If food and drink contact areas are not used for a few days or from season to season, they should be cleaned before they are used again to remove dust and dirt that has settled in between use.
- Bugs can settle into hard to reach areas and continue to grow if they're not dealt with. It's important to clean in hard-to-reach areas (e.g. cracks in floors, floor drains, chipped equipment etc.) to stop bugs from building up and becoming a source of contamination which can make your food unsafe.
- It's important to clean staff-rooms, bathrooms and toilets. This minimises the chance of staff bringing bugs from these areas into places where food or drink is handled or processed.
- It's important to keep storage rooms clean and tidy.
- Cleaning equipment (brooms, mops, cleaning cloths), can become a source of contamination if they aren't cleaned or replaced regularly.
- Using disposable cleaning cloths or washing cleaning cloths after each day's use is recommended.
- If you/your staff are using automated "clean-in-place" (CIP) systems, you should have an expert install the system and confirm it is working properly.
- Sometimes bugs get used to the cleaning products you use and how you use them. You/your staff should consider changing the chemicals and processes you use occasionally.
- Checking or fixing equipment and making changes and repairs to your building can spread hidden bugs. You need to thoroughly clean and if necessary sanitise your equipment before making food and drink.

Why is cleaning and sanitising important?

- Cleaning doesn't remove all bugs, so if you're manufacturing products for sale you will also need to sanitise food surfaces to kill any bugs that are left behind after cleaning.

Sanitisers don't work properly on unclean surfaces, so you need to clean before sanitising.

- Dirty premises can attract pests like mice, rats and cockroaches which can spread disease.
- Even if food is fully packaged at all times you should still keep surfaces and equipment clean. If the outside packaging gets dirty that will contaminate the hands of people who open the package and this could contaminate your food.

D

Do

What do you need to do?

- You must clean and if necessary sanitise all food contact surfaces.
- Sweep, vacuum or mop floors, wipe benches and clean food and drink contact surfaces, equipment, staff facilities and storage areas regularly and when needed.
- You must follow manufacturer's instructions when using cleaning chemicals.
- Clean brooms, mops and other cleaning equipment regularly.
- Always store cleaning equipment and chemicals away from food and drink.
- Only use sanitising chemicals designed for use in food and drink areas and follow the instructions on the label.
- Sanitise surfaces and equipment that come in contact with food or drink after cleaning, or before use.
- You must clean and sanitise food processing areas after maintaining equipment and facilities (e.g. after pulling equipment apart to check or fix it, or making changes or repairs to your building).
- Sort and/or wash dirty laundry (if you choose to supply your staff with clean clothing) away from food and drink.
- Store rubbish away from food and drink and remove it from the premises regularly.
- Ensure that you/your staff, visitors and customers can't mistake rubbish for food, drink or ingredients.
- Clean bins and rubbish areas regularly.
- If you're making ready-to-eat food you must clean and sanitise your food processing area to ensure there are no potential sources of contamination.

S

Show

What do you need to show?

- Your verifier will look around your business and check that everything looks clean and tidy. They will also ask you and/or your staff when and how you clean and sanitise.
- Show your verifier:
  - your 'end-of-day' routines including stock control,

- a record of your cleaning tasks, who does it, and when,
- how you remove waste,
- how you clean your bins and rubbish area, and who is responsible,
- that your premises and equipment are clean and that laundry is being done when necessary,
- how you clean and sanitise (if applicable) your food and drink making areas and equipment,
- how you use chemicals safely.

Cleaning and maintenance

Maintaining equipment and facilities

K

Know

What do you need to know?

- If your premises and equipment aren't designed for food or drink use, aren't in good condition and/or don't work properly, you may make unsafe and/or unsuitable food and drink.
- It is important to assess where you make food and drink and make sure it's not made of materials that could contaminate it, can be easily cleaned, has the necessary services (e.g. power and water) and is big enough for all activities (and staff) you have. You need to regularly check that all of this remains true (is maintained) for your business.
- Broken equipment and an unkempt building (e.g. damaged floors or walls) can allow pests and bugs in your food and drink. This can lead to unsafe and unsuitable food and drinks.
- You don't need to be an expert at fixing or maintaining your equipment, but you do need to able to identify if there's a problem and how to fix it, or who to bring in to fix it.
- The water you use for making food and drink, hand washing and cleaning must always be clean. You need to know if your water pipes, tanks and water treatment systems fail, so they can be fixed.
- Not all chemicals and compounds (like grease, oil, etc.) are designed to be used with food, and some chemicals can make people sick if they get into food or drink.

Why is maintaining your equipment and facilities important?

- A common way that bugs or other harmful things (e.g. chemicals, bits of glass or metal etc.) get into food is from things breaking, breaking down or getting damaged. Bugs especially like to hide and grow in pitting, cracks, crevices or holes, and if they find a hiding space where food is stored, prepared, processed or handled, they often get into food and make it unsafe.
- Equipment (e.g. chillers, freezers) might become inefficient or break down allowing temperatures to rise and allow bugs to grow in food stored there.
- Sometimes it's the things you can't see (e.g. water pipes) or don't see all the time (e.g. the inside of some equipment) that break down or become dirty/contaminated resulting in unsafe or unsuitable food. It's important to remember to sometimes check the things not in plain view.
- Measuring equipment (e.g. thermometers) can become a lot less accurate over time. You need to know that your equipment is taking accurate temperature readings so you know that bugs aren't able to grow in your food.

D

Do

What do you need to do?

- Regularly review that you haven't outgrown your location, or negatively impacted workflow through any growth or changes to the amounts and types of foods or drinks you are growing, making or selling.
- Regularly check your premises and equipment for signs of wear-and-tear (damage) (e.g. holes in floors and walls) and fix as necessary.
- Check your equipment for signs of deterioration and fix as necessary.
- Service your equipment regularly.
- Calibrate your equipment (e.g. pH meter, thermometer etc.) as required.
- Maintenance compounds and chemicals must:
    - be fully labelled, stored, sealed and used following the manufacturer's instructions,
    - be stored and transported in containers that are clearly different from food containers, including containers used for food additives and processing aids, and are appropriate for the compound they contain.

For all water supplies

- Water pipes must work properly to stop animals, birds, dirt and waste from contaminating your water.
- Always flush water pipes after:
  - repairs and maintenance,
  - after 7 days without use to remove stagnant water.
- Keep water tanks:
  - Clean and in good condition to stop the build-up of sediment, and
  - Covered to stop animals, birds and dirt form contaminating water.

For surface or ground water supply only

- You must install, operate and maintain the water treatment system following the manufacturer's instructions.
- You must follow the manufacturer's instructions for replacing and cleaning filters.
- Bores must be designed and maintained so they are protected from surface contamination.

For roof water supply only

- Water must only be collected from clean roofs and gutters made from safe materials (e.g. no lead based paints, bitumen, exposed timber or copper gutters).
- You must reduce the risk of contamination as much as possible. This includes:
  - putting screening gutters up,
  - removing overhanging branches and vegetation,
  - mounting aerials and satellite dishes away from water collection areas,
  - installing a first flush device (a device which diverts the first flush of water when it rains).
- You must install, operate and maintain the water treatment system (e.g. replacing filters) following the manufacturer's instructions.

S

Show

What do you need to show?

- Show your verifier:
  - what you do to check your premises and equipment are designed for food and drink use and are in good working order,
  - how often you do maintenance checks,
  - what you check for during maintenance checks,

- a record of your regular maintenance tasks or repairs, who does them and when,
- how often you've inspected and maintained your water system and tanks. Also record who did it and when.
- Your verifier will check that you are calibrating your equipment (e.g. pH meter, thermometer etc.) as required.

For self-supplied water only (surface, ground or roof supply)

- Show how often you've inspected and maintained (e.g. changed filters) your water treatment system.

Knowing your processes and controls

K

Know

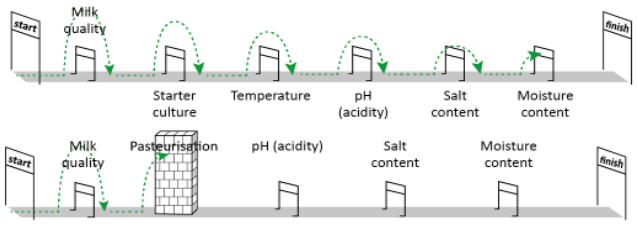
What do you need to know?

- It's your job to identify and control hazards to keep your food safe when it's being prepared, processed or handled.
- There are 3 types of hazards you need to know about:
  - bugs (e.g. listeria, E.coli, salmonella, campylobacter etc.),
  - chemicals (e.g. cleaning products, pest control products),
  - foreign matter (e.g. glass, stones, metal).
- Identifying and controlling hazards will help to keep your food and drink safe when preparing, processing or handling it.
- Not all hazards can be controlled in all food and drink businesses. For example:
  - it's not possible for a manufacturer of frozen vegetables to directly control the application of agricultural compounds onto horticultural produce), or
  - some foods will require cooking by the consumer to control harmful bugs.

As well as giving you the taste, texture, appearance or quality you want for your food or drink, some processing steps can also double as a safety or suitability control step. For example, if you cook or heat something to enhance its flavour, following the cooking or pasteurising procedures means you will also kill harmful bugs.

- For each type of food or drink you make you need to know:
  - your recipe including the ingredients you use,
  - the process you will follow for your food or drink,
  - any regulatory limits that apply to your food or drink,
  - the hurdles (things that help kill bad bugs) you will use to meet those limits.

Examples of hurdles when making cheese:



- Hurdles are controls like:
  - temperature, (both heat treatment and storage temperature),
  - pH (acidity),
  - salt content,
  - moisture content,
  - starter culture (if you/your staff are making a fermented product).
- You need to be careful not to introduce any bad bugs during processing, as bugs introduced along the way might not have to face all of the hurdles (e.g. if you have a cooking/pasteurisation step which kills any bugs present, you don't then want to introduce new bugs after this).
- Some types of food and drink (for example: milk, butter, cheese, chocolate, meat pies, fruit juice, wine, cider and beer) are defined in the Australia New Zealand Food Standards Code (the Code). You can only use specified ingredients, food additives and processing aids in defined foods. Follow the ***'Knowing what is in your food and drink'*** card.

Why is knowing your process and controls important?

- Many food or drink making processes don't have one single step that reliably kills all bad bugs. For many foods, you will need to select a combination of steps (hurdles) that, when they're added together, exhaust or kill bad bugs.
- The combination of all the hurdles you use 'adds up' to prevent the growth of bad bugs and determines how safe your product is at the end of your process.

D

Do

What do you need to do?

- Identify the ingredients and inputs for each food or drink that you make.
- You must work out and write down the process you/your staff follow when making your product(s).
- Identify the types of hazards (bugs, chemicals and foreign matter) that you/your staff need to control in your business. This may be influenced by the intended consumer(s) of your food or drink and/or if they are ready-to-eat 'as is' or if they will be cooked/further processed before they are eaten.
- Identify any regulatory limits (or set your own) that apply to your products
- You must select and record the combination controls (hurdles) you will use to make safe and suitable food and drink.
- You must follow your documented process every time, to ensure you make safe and suitable food or drink.
- Only use ingredients, food additives and processing aids that the Code allows for the food or drink you make.

S

Show

What do you need to show?

- Your verifier will:
  - ask you to take them on a tour of your business and point out the different processes you have,
  - ask how you decided which process control steps to include in your business,
  - ask you about the types of hazards you are controlling in your business.

- Show your verifier:
  - a record of your process and the limits you will meet,
  - how you know your food or drink meets the rules in the Code,
  - how you know your hurdles allow you/your staff to meet the limits,
  - how you/your staff know how to apply your hurdles correctly every time.

Thoroughly cooking food

K

Know

What do you need to know?

- Thoroughly cooking food is:
  - heating food to a specific temperature and holding it at that temperature long enough to kill the bugs that can make people sick or die,
  - heating food evenly (preventing cold spots) to make sure all active/growing bugs are killed,
  - checking that the correct temperatures are reached every time.
- You either need to follow the manufacturer's instructions, or the temperature/time combinations in the Do section, when cooking food.
- Many foods can be contaminated with bugs that could make people sick or cause death.

Raw foods can be contaminated with thousands or millions of bugs.

- If you're following either of the ***'Preparing red meat for mincing and serving it lightly cooked or raw'***, or ***'Cooking using the sous vide method'*** cards, you don't need to follow the temperature/time combinations in this card.

Why is thoroughly cooking food important?

- Thoroughly cooking can kill bugs and make your food safe to eat. It's important to check the temperature with a thermometer because food can look cooked when it isn't and look uncooked when it is.
- Thoroughly cooking kills millions of bugs (1 in a million can be expected to survive). Higher risks foods (e.g. minced meats, poultry, and livers) need to be thoroughly cooked.

D

Do

What do you need to do?

- Identify the foods that need to be thoroughly cooked.
- Either:
  - follow the manufacturer's instructions for cooking food, or
  - if cooking poultry, minced meat and chicken livers follow one of the temperature/time combinations below:

Internal temperature	Minimum time at temperature
75°C	30 seconds
73°C	60 seconds
70°C	3 minutes
68°C	5 minutes
65°C	15 minutes
63°C	31 minutes

You don't have to meet the temperature/time combinations above if your registration authority has approved a different time/temperature combination. You must meet, those limits instead.

- Cook your food evenly so all parts reach the temperature/time combination.
- Ensure your food doesn't become re-contaminated with bugs after it has been cooked.
- After thoroughly cooking:
  - secure the food immediately so it is protected from recontamination, or
  - keep the food above 60^{0}C until it's served, or
  - rapidly cool the food following the rules in the ***'Cooling freshly cooked food'***

S

Show

What do you need to show?

- Show your verifier:
  - how you, know which foods need to be thoroughly cooked,
  - how you know you/your staff are meeting the temperature/time combinations in the Do section,
  - how you prevent re-contamination of freshly cooked food.

Producing, processing and handling food

Keeping foreign matter out of food and drink

K

Know

What do you need to know?

- Many food complaints are related to finding foreign matter in food or drink.
- Foreign matter includes dead pests (e.g. flies, mice etc.), hair, fingernails, band aids, coins or jewellery, bits of cleaning cloth, razor blades, nuts, bolts, plastic and cardboard, stones, twigs, glass, metal shards, etc.

Why is managing the risk of foreign matter in foods and drink important?

- Some foreign matter is unsafe, including hard or sharp objects like glass, hard plastic or stones etc. These can cause damage to the mouth, tongue, throat, stomach, intestines, teeth and gums.
- Keeping foreign matter out of food and drink is important and can be done in a number of ways. This depends on the types of food being made and the chance of foreign matter occurring.
- Food is unsafe if you think it contains:
    - glass, or
    - hard or sharp foreign matter that measures 7mm to 25mm, in length, or
    - hard or sharp foreign objects less than 7mm or between 25mm and 77mm in length and the primary intended consumers of the product are:
        - children under 6 years old,
        - elderly people,
        - people with dentures.
- Larger objects may not be a safety risk but can make your food and drink unsuitable.
- Foreign matter from people or pests that gets into food or drink that won't be treated (e.g. heated) to kill bugs (or after treatment to kill bugs) can cause people to get sick.
- Even if foreign matter doesn't cause harm or make your customer sick, they will often link it to unsafe practices which could damage your reputation.
- Many of the procedures in this plan will help you/your staff to manage foreign matter getting into food or drink, but you could also consider filtration or sieving, visual inspection, colour sorting, implementing jewellery policies for workers, metal detection, x-ray inspection, etc.

D

Do

What do you need to do?

- Implement procedures to prevent foreign matter getting into food or drink and/or to detect foreign matter in final products.
- Always ensure that no part of your process contaminates your food or drink with foreign matter.
- If used, you must calibrate and check the performance of any foreign matter detection equipment such as metal detectors, x-ray or colour-sorting units.

S

Show

What do you need to show?

- Show your verifier:
    - how you keep foreign matter out of food and drink, or check that it is not present in final products,
    - how you know any foreign matter detection equipment is regularly calibrated.

Producing, processing and handling food

Proving the method you use to kill bugs works every time

K

Know

What do you need to know?

- Proving your method works means that you don't have to test every single food item, each time you make it.
- If you use any of the following cards, you can prove your method works to kill bugs every time:
    - Thoroughly cooking food,
    - Pasteurising food,
    - Drying or concentrating food to control bugs,
    - Using acid to control bugs,
    - Hot smoking to control bugs,
    - Designing your cheesemaking process
    - Pasteurising milk,
    - Thermising,
    - Making sushi with acidified rice,
    - Making Chinese-style roast duck,
    - Cooking using the sous vide method.

What do you need to know?

- Proving your method works means that you don't have to test every single food item, each time you make it.
- If you use any of the following cards, you can prove your method works to kill bugs every time:
    - Thoroughly cooking food,
    - Pasteurising food,
    - Drying or concentrating food to control bugs,
    - Using acid to control bugs,
    - Hot smoking to control bugs,
    - Designing your cheesemaking process
    - Pasteurising milk,
    - Thermising,
    - Making sushi with acidified rice,
    - Making Chinese-style roast duck,
    - Cooking using the sous vide method.

What do you need to know?

- Proving your method works means that you don't have to test every single food item, each time you make it.

- If you use any of the following cards, you can prove your method works to kill bugs every time:
    - Thoroughly cooking food,
    - Pasteurising food,
    - Drying or concentrating food to control bugs,
    - Using acid to control bugs,
    - Hot smoking to control bugs,
    - Designing your cheesemaking process
    - Pasteurising milk,
    - Thermising,
    - Making sushi with acidified rice,
    - Making Chinese-style roast duck,
    - Cooking using the sous vide method.

D

Do

What do you need to do?

- Identify and follow the cards with the methods that you will prove: (tick which cards you/your staff will prove)
    - ☐ Thoroughly cooking food,
    - ☐ Pasteurising food,
    - ☐ Drying or concentrating food to control bugs,
    - ☐ Using acid to control bugs,
    - ☐ Hot smoking to control bugs,
    - ☐ Designing your cheese making process,
    - ☐ Pasteurising milk,
    - ☐ Thermising
    - ☐ Making sushi with acidified rice,
    - ☐ Making Chinese-style roast duck,
    - ☐ Cooking using the sous vide method.
- You/your staff must use the same equipment and same ingredients (type, weight, size, vinegar solution etc.) every time you make the food.
- Make or cook the food/cooking equipment using the standard procedure from the relevant card.
- Check/test the food to make sure it is meeting the required limits (e.g. poultry and minced meat products are cooked to 75°C for at least 30 seconds, the pH of acidified rice is at 4.6 or below, water bath is at the correct temperature when using the sous vide method).
- If your standard method doesn't meet the required temperature/limit, you must adjust your cooking temperature/type of ingredients to make your method work.
- Check your method works 3 consecutive times with different batches of food to prove that your controls are achieving safe and suitable food. If any of your 3 checks shows that your method doesn't work, you must redesign your method until you achieve 3 consecutive successful checks.
- Record your method and checks.
- Check your method works every week by checking the temperature of 1 batch of food.

What do you need to do?

- Identify and follow the cards with the methods that you will prove: (tick which cards you/your staff will prove)
    - ☐ Thoroughly cooking food,
    - ☐ Pasteurising food,
    - ☐ Drying or concentrating food to control bugs,
    - ☐ Using acid to control bugs,
    - ☐ Hot smoking to control bugs,
    - ☐ Designing your cheese making process,
    - ☐ Pasteurising milk,
    - ☐ Thermising
    - ☐ Making sushi with acidified rice,
    - ☐ Making Chinese-style roast duck,
    - ☐ Cooking using the sous vide method.
- You/your staff must use the same equipment and same ingredients (type, weight, size, vinegar solution etc.) every time you make the food.
- Make or cook the food/cooking equipment using the standard procedure from the relevant card.
- Check/test the food to make sure it is meeting the required limits (e.g. poultry and minced meat products are cooked to 75°C for at least 30 seconds, the pH of acidified rice is at 4.6 or below, water bath is at the correct temperature when using the sous vide method).
- If your standard method doesn't meet the required temperature/limit, you must adjust your cooking temperature/type of ingredients to make your method work.
- Check your method works 3 consecutive times with different batches of food to prove that your controls are achieving safe and suitable food. If any of your 3 checks shows that your method doesn't work, you must redesign your method until you achieve 3 consecutive successful checks.
- Record your method and checks.
- Check your method works every week by checking the temperature of 1 batch of food.

What do you need to do?

- Identify and follow the cards with the methods that you will prove: (tick which cards you/your staff will prove)
    - ☐ Thoroughly cooking food,
    - ☐ Pasteurising food,
    - ☐ Drying or concentrating food to control bugs,
    - ☐ Using acid to control bugs,
    - ☐ Hot smoking to control bugs,
    - ☐ Designing your cheese making process,
    - ☐ Pasteurising milk,
    - ☐ Thermising
    - ☐ Making sushi with acidified rice,
    - ☐ Making Chinese-style roast duck,
    - ☐ Cooking using the sous vide method.
- You/your staff must use the same equipment and same ingredients (type, weight, size, vinegar solution etc.) every time you make the food.
- Make or cook the food/cooking equipment using the standard procedure from the relevant card.
- Check/test the food to make sure it is meeting the required limits (e.g. poultry and minced meat products are cooked to 75°C for at least 30 seconds, the pH of acidified rice is at 4.6 or below, water bath is at the correct temperature when using the sous vide method).
- If your standard method doesn't meet the required temperature/limit, you must adjust your cooking temperature/type of ingredients to make your method work.

- Check your method works 3 consecutive times with different batches of food to prove that your controls are achieving safe and suitable food. If any of your 3 checks shows that your method doesn't work, you must redesign your method until you achieve 3 consecutive successful checks.
- Record your method and checks.
- Check your method works every week by checking the temperature of 1 batch of food.

S

Show

What do you need to show?

- Show your verifier records of:
  - your method,
  - your weekly batch checks.

What do you need to show?

- Show your verifier records of:
  - your method,
  - your weekly batch checks.

What do you need to show?

- Show your verifier records of:
  - your method,
  - your weekly batch checks.

Producing, processing and handling food

Reheating food

K

Know

What do you need to know?

- You need to reheat food safely so that food does not stay in the temperature danger zone (5°C-60°C).
- If you don't reheat food correctly, bugs will grow and make your food unsafe and unsuitable.
- Vending machines need to reheat food safely.
- Bain-maries and hot-cabinets don't reheat food. They keep food warm once it has been cooked or reheated.

Why is reheating food important?

- If food is not reheated properly, it might stay in the temperature danger zone (5°C-60°C) too long and bad bugs might grow. This could make people sick or die.

D

Do

What do you need to do?

- Use the right equipment to reheat food quickly (tick which you/your staff use):
  - ☐ microwave
  - ☐ stovetop
  - ☐ oven
  - ☐ other
- Reheat food until it is steaming hot (at least 75°C for at least 6 seconds) in the coolest part (if a liquid) or the middle (if solid) and keep it above 60°C until it is used.
- Reheated food that is held between 5°C and 60°C, can be reheated again to above 75°C for at least 6 seconds and served hot (above 60°C) within 4 hours, otherwise it must be thrown out.
- Vending machines that reheat food must reheat it to at least 75°C in the coolest part and keep the food above 60°C until it is used.

S

Show

What do you need to show?

- Show your verifier:
  - how you safely reheat food to above 75°C for at least 6 seconds,
  - how you know the food you reheated was above 75°C for at least 6 seconds,
  - how you know your vending machine reheats food safely.

Producing, processing and handling food

Cooling freshly cooked food

K

Know

What do you need to know?

- You must cool food correctly, so that it does not stay in the temperature danger zone (5°C-60°C) long enough for bugs to grow to unsafe levels.
- If you don't cool hot food quickly, bugs will grow and make your food unsafe and unsuitable.
- You don't have to follow the 2hr/4hr rule when cooling freshly cooked food.

Why is cooling freshly cooked food important?

- If food is not cooled properly, it might stay in the temperature danger zone (5°C-60°C) too long allowing bad bugs to grow. This could make people sick or die.

D

Do

What do you need to do?

- Cool food quickly to stop bugs growing or producing toxins.

- When cooling freshly cooked food it must get from:
  - 60°C to 5°C (or below) in less than 6 hours or it must be thrown out,
  - 60°C to room temperature or 21°C (whichever is colder) in less than 2 hours, then room temperature or 21°C (whichever is colder) to 5°C (or below) in less than 4 hours.
- Use any (or a combination) of these methods (tick as appropriate):
  - ☐ placing your food into shallow containers using an ice bath,
  - ☐ separating your food into smaller portions,
  - ☐ placing your food in a blast chiller.
- Once your food is at room temperature or 21°C (whichever is colder), put it in the fridge or chiller.
- Check after 4 hours that food is at 5°C or below.
- Throw out any freshly cooked food which has been in the temperature danger zone for more than 6 hours.

S

Show

What do you need to show?

- Show or describe to your verifier how you cool freshly cooked food quickly.

- Show your verifier records of how you safely cool each batch of freshly cooked food (i.e. 60°C to room temperature or 21°C (whichever is colder) in less than 2 hours, then room temperature or 21°C (whichever is colder) to 5°C (or below) in less than 4 hours).
- Write down:
  - the food,
  - date the food was cooked,
  - the time it took to cool down.

Producing, processing and handling food

Defrosting food

K

Know

What do you need to know?

- Juices from defrosted food can contain harmful bugs. If these juices get onto other food and surfaces they can make people sick.
- If you leave food to thaw at room temperature for a long time, the outer parts may be in the temperature danger zone for too long before the middle thaws.
- If food is only partially defrosted, it may not reach the correct temperatures during cooking to destroy bugs.

D

Do

What do you need to do?

Do

- Plan ahead if you/your staff are using frozen food so that there is enough time to thaw it safely, either in the fridge or chiller.
- When provided, thaw products according to manufacturer's instructions.
- Keep food being defrosted in a container and near the bottom of the fridge/chiller to stop juices from spreading onto surfaces and other foods.
- If you can't defrost food in a fridge/chiller, you can use any (or a combination) of these methods (tick which you use):
  - ☐ thaw in the microwave and use food immediately,
  - ☐ thaw under running cold water in an air tight container
  - ☐ defrost on the bench for no more than 4 hours.
- Once thawed, foods that are normally kept cold or kept hot must be refrigerated, cooked or kept hot.
- Food must be fully defrosted before being reheated or cooked.

S

Show

What do you need to show?

- Show your verifier:
  - how you defrost your food,
  - how you keep defrosted food safe.

Producing, processing and handling food

Using acid to control bugs

K

Know

What do you need to know?

- If you ferment or acidify your food to make it safe, there are pH rules you need to meet.
- Lowering the pH to less than 3.6 kills' most harmful bugs.
- Acidification is when acid is added to food to stop or slow down the growth of harmful bugs.
- Fermentation is when good bugs are purposefully grown in food to compete against harmful bugs and slow them down.
- When fermenting, you need to know the signs that the bad bugs are winning, so you can stop unsafe food being made.
- You don't need to follow this card if you're making raw milk cheese, or following either of these cards:
  - ***Making Chinese-style roast duck***, or
  - ***Making sushi with acidified rice.***

Why is using acid to control bugs important?

- Lowering the pH to between 3.6 and 4.6 creates an environment which harmful bugs find hard to grow in. If you lower the pH to between 3.6 and 4.6, you will still need to either pasteurise or thoroughly cook food to make it safe.
- You need to get the pH levels of your food right so you don't harm your customers i.e. if the food is too acidic (pH less than 2.4) you could burn someone's throat. If the food is not acidic enough (pH more than 4.6) bugs can grow.

- It's important that the method you use to acidify food results in an even pH, throughout the food, to prevent bugs growing.

D

Do

What do you need to do?

- Identify the foods that need to be fermented or acidified.
- If you're acidifying food, you must use a method that achieves a consistent pH.
- If you're fermenting food, you must use a method that allows the good bugs to grow well and evenly throughout your food.
- Use one of these methods to measure pH: (tick which one you do)
  - ☐ use a calibrated pH meter,
  - ☐ send samples to an accredited lab.

You can choose to prove your method works to achieve a consistent pH. Your method must be relied on to be +/-0.1 of the target pH. Follow the ***'Proving your method you use to kill bugs works every time'*** card.

- Test your final food to be sure the pH is stable at either:
  - 6 or less, or
  - between 3.6 and 4.6.
- If you're making any food or drink, other than raw milk cheese, you must pasteurise or thoroughly cook your food if the pH is between 3.6 and 4.6. Follow the ***'Thoroughly cooking food'*** or ***'Pasteurising food'*** cards.

S

Show

What do you need to show?

- Show your verifier:
  - how you acidify or ferment your food,
  - how you know the pH in the food is even, and is either less than 3.6 or between 3.6 and 4.6,
  - if you are fermenting, how you knew the fermentation is working,
  - if your pH is between 3.6 - 4.6, how you pasteurise or cook your food.

Separating food and drink

K

Know

What do you need to know?

- Separation means using time or distance (or both) to:
  - prevent bugs on raw/uncooked food from getting on to cooked/ready-to-eat foods (e.g. salad),
  - keep food that doesn't contain allergens separate from foods that do,
  - keep non-food goods, like poisonous/dangerous chemicals or animal feeds, away from food,
- Keeping raw/uncooked food away from cooked/ready- to-eat foods (e.g. salad) will stop bugs spreading.
- There are 11 common food allergens you must know about. These are: sulphites (when added at more than 10mg/kg), cereals containing gluten (e.g. wheat - other than alcohol distilled from wheat), eggs, fish, milk, peanuts, soybeans, sesame seeds, shellfish, tree nuts and lupin.
- Some foods/ingredients could cause an allergic reaction. Keeping food that doesn't contain allergens separate from foods containing the allergens listed above will stop people getting sick and possibly dying.
- Know what allergens are in the food you sell - you must be able to tell customers if they ask or include this information on the packaging.
- Poisons and dangerous chemicals can make people sick if they get into food.

Why is separating food important?

- Accidental contamination of food is one of the most common reasons food becomes unsafe.
- Separating food will stop people getting sick and possibly dying.
- Poisons and dangerous chemicals can make people sick if they get into food.
- Processing all allergen-free foods before you process allergen-containing foods, can add some extra protection.

D

Do

What do you need to do?

- You/your staff must have a way to manage preparing:
  - raw and cooked/ready-to-eat foods, and
  - foods that contain the allergens listed in the Know, and foods that don't contain those allergens.
- Tick the option that you/your staff use to manage the point above:
  - ☐ use different spaces and equipment (chopping boards, knives and utensils), or
  - ☐ process at different times (cleaning in between), and/or
  - ☐ thoroughly clean and sanitise surfaces, boards, knives and other utensils between use.
- Wash your hands and, if required, change protective clothing (e.g. aprons) between handling:
  - raw and cooked/ready-to-eat, or
  - foods that contain the allergens listed in the Know, and foods that don't contain those allergens, or
  - dangerous chemicals or poisons and food.
- Keep all products not intended for human consumption (e.g. pet food) away from food and food preparation areas.
- Label poisons and dangerous chemicals clearly, store them away from food and make sure food is protected when using them.
- Label and store all food that could cause an allergic reaction separately.
- Tell your customers which food or drink that you make or sell contains allergens, if asked.

- When transporting food, separate:
  - raw and cooked/ready-to-eat, or
  - foods that contain the allergens listed in the Know, and foods that don't contain those allergens.

S

Show

What do you need to show?

- Your verifier may ask you/your staff to explain how they know which foods you make or serve contain allergens.
- Show your verifier that foods containing any of the allergens listed in the Know, and poisons and dangerous chemicals are clearly labelled and kept away from food.
- Show or explain to your verifier how you separate:
  - raw and cooked/ready-to-eat products, or
  - foods that contain the allergens listed in the Know, and foods that don't contain those allergens, or
  - dangerous chemicals or poisons and food.

Sourcing, receiving and tracing food and drink

K

Know

What do you need to know?

- You need to know that all of the inputs, ingredients, food additives and processing aids that are used in your food or drink are safe. You also need to know where they came from.
- You should use trusted suppliers (e.g. registered food businesses) for your food, ingredients and processing aids to give you a good start to making safe and suitable food and drink.
- You need to check that the ingredients you receive are:
  - safe to use,
  - not damaged,
  - at the right temperature (if applicable),
  - not past their Use By date.
- You need a system to keep track of the food, ingredients and inputs you receive.
- You need to be able to trace and recall your product immediately if you need to. You can use either option 1 or 2 for tracing food.
  - record all information (including suppliers' information with batch/lot identification) so that specific batches of your product can be traced and recalled (if necessary), or
  - only record the minimum amount of information required and recall all food or drink you have made that might be affected if there is a problem.
- There is specific information you must keep about foods, ingredients or inputs you import.

Why is sourcing, receiving and tracing important?

- Using trusted suppliers gives you confidence that foods, ingredients and inputs are safe to use. This can save you time and money, and prevent people getting sick from your food or drink.
- Some foods must be kept cold (chilled or frozen) to stop bugs growing as they can become unsafe quite quickly if they're not kept at the right temperature.

It's best to be there to receive deliveries. If chilled or frozen food is delivered out of hours, how will you know that it was delivered at the right temperature, and if it's still safe to use?

D

Do

What do you need to do?

Source

- Keep a list of your suppliers and their contact details.
- If you are an importer of food or drink, the requirements you must meet are outlined here:https://www.mpi.govt.nz/importing/overview/food-imports/ (https://www.mpi.govt.nz/importing/overview/food-imports/)

Receive

- You must always:
  - check the temperature of foods and inputs that need to be chilled to keep them safe, and if it is above 5^{0}C, apply the 2 hour/4 hour rule as shown in the diagram below
  - check that frozen food is frozen,
  - ensure that packaging is not damaged or dirty,
  - ensure that food is not past its Use By date.

- You must put chilled food and inputs away first, then frozen food, and then food that can be stored at room temperature.

Trace

- For all food choose either: (tick as appropriate)
    1. ☐ record all information to enable targeted recall, or
    2. ☐ record minimum information and recall all food that might be affected.
- If you choose Option 1:
    - you must have a written plan to be able to trace your food or drink, ingredients and/or inputs, and recall it if there's a food safety problem with either your food or drink, and/or any of the ingredients in your food or drink, and
    - you must keep records including supplier details, brand and batch ID's, Best Before and Use By dates (if required),
    - your staff must know how to follow the plan (i.e. recording the information above), and where to look for this information on pre-packaged products.
- If you choose Option 2:
    - you must record the following information:
        - the name and contact details of your supplier,
        - the type and quantity of food or ingredients,
        - the temperature of the food (only if it needs to be kept at a certain temperature to keep it safe and suitable), and
        - recall or dispose of all food, ingredients or inputs which may have been affected.
    - You must test your tracing systems regularly to prove you can quickly identify and prevent the sale or distribution of, or recall, unsafe/unsuitable food or drink.

S

Show

What do you need to show?

- Your verifier will:
    - ask you who your suppliers are,
    - ask how you know that they are trusted suppliers,
- Your verifier might:
    - watch what you do when receiving a delivery of food, ingredients or inputs at your business,
    - check your records relating to receiving food, ingredients or inputs,
    - ask how you have tested your tracing system. They might also conduct a tracing test using an ingredient you have received or a batch of food or drink you have produced.

- Show your verifier a record of:
    - all of the information outlined in the Do section if you are importing food,
    - all of the information in the Do section if you chose option 1, or
    - the minimum information required listed in the Do section if you chose option 2.

Safely storing and displaying food and drink

K

Know

What do you need to know?

- Food and drink that is not covered, clearly labelled or appropriately stored away can become contaminated.
- It is possible for food to become unsafe while not being used and being stored.
- Foods that are stored in rooms/stack systems (i.e. not on the floor) that can be easily cleaned, are less likely to be contaminated.
- Keeping food at the right temperature prevents bugs from growing quickly.
- You need to know how to keep food (including food in vending machines) at the right temperature to stop bugs from growing.
- Foods and ingredients (including food in vending machines) should not be used or sold past their Use By date.
- Food needs to be stored away from non-foods (e.g. perfumes used in cosmetic or household cleaning products) as they can be absorbed by food and make it unsafe or unsuitable.
- Storage conditions to keep food safe will either be on the food label or provided by the supplier.

Why is safely storing and displaying food and drink important?

- Food or drink that is not stored under the appropriate conditions, or is kept beyond its Use By date may become unsafe and could make people sick or die.

'Display' means the storage of food in a retail/public area.

Why is safe storage and display important?

- Floors can be a source of contamination as pooling water and dirt which can be brought into storage areas on shoes and tyres can make food unsafe.
- Some foods must be kept cold (chilled or frozen) to stop bugs growing (e.g. raw milk, meat). Some foods we kept cold so the final customer enjoys them (e.g. beer). You need to know the difference so you can keep food safe.
- Storage conditions to keep food safe will be listed on the label, or provided by the supplier.
- Some foods (e.g. powdered foods) need to be stored in a place where humidity is controlled to prevent the food from absorbing moisture. If dried foods absorb too much moisture this allows bugs to grow and the food to become unsafe.
- Many foods have a Use By date because bugs can grow slowly in them even when they're stored safely. Foods with a Use By date can make people sick if they eat them after this date. It's important to have a stock checking/rotation system so you don't use food that is past its Use-By date.
- A Best Before date is different from a Use By date. A Best Before date indicates the quality of the food might not be as good after this date, but it is unlikely to make people sick if they eat it.
- Packaging comes into contact with food, so it's important to keep it stored as safely as you would keep food, so it doesn't contaminate food.

D

What do you need to do?

Do

- Store food and packaging safely.
- Create a system to ensure that Use-By dates are regularly checked so that food can't be used or sold after the Use-By date.
- Check daily that chilled food is being kept at 5°C or lower by: (tick what you/your staff use)
  - ☐ using a calibrated probe thermometer to check the temperature of food or other substance (e.g. a container of water), or
  - ☐ using a calibrated infrared thermometer to measure the surface temperature of the food, or
  - ☐ using a calibrated automated system to monitor the internal temperature or surface temperature of your food, or
  - ☐ using another method that accurately measures the temperature of food (write the method you/your staff use here):

- Ensure that food in the freezer is still frozen. You don't have to measure the temperature of the frozen food.
- Follow the 2-hour/4-hour rule, as shown in the diagram below:

- If you/your staff are storing foods that need to be under controlled humidity to keep them safe, install and monitor a humidity control system.
- Follow the ***'When something goes wrong'*** card if you find food is not kept at the right temperature or humidity.

S

Show

What do you need to show?

- Show your verifier:
  - how you check the temperature of chilled food,
  - how you control and check humidity (if required),
  - that food is stored appropriately, labelled and covered.

Producing, processing and handling food

Knowing what is in your food or drink

K

Know

What do you need to know?

- Food allergies can result in life-threatening reactions that can occur within minutes of eating or drinking the allergen.
- There are 11 common food allergens you must know about. These are: sulphites, (when added at more than 10mg/kg), cereals containing gluten (e.g. wheat - other than alcohol distilled from wheat), eggs, fish, milk, peanuts, soybeans, sesame seeds, shellfish, tree nuts and lupin.
- You need to know what is in all of the ingredients or inputs you use because they could contain allergens (e.g. some fining agents contain casein (from milk) or egg white).
- You need to know, and be able to tell your customers, which foods you make and/or sell that could cause an allergic reaction so they can make an informed decision. You will need to be able to include this information on your product label, if required. Follow the ***'Packaging and labelling'*** card.
- You need to know what is in all of the inputs, ingredients and processing aids that you use. If you are importing food or drink, you must be able to understand, and if necessary, translate the label.
- You need to know about ingredients, food additives and food composition rules in the Australia New Zealand Food Standards Code (the Code). You can find the Code here: http://www.foodstandards.govt.nz/code/Pages/default.aspx (http://www.foodstandards.govt.nz/code/Pages/default.aspx)
- When you are making some types of food or drink (e.g. beer, butter, cheese, chocolate, wine) the Code states that there are only certain food additives and processing aids you can or must use. There are also limits for these that you need to follow. Follow the ***'Knowing your processes and controls'*** card.
- If you think a food or ingredient you buy hasn't been labelled correctly, especially if it probably has an allergen that isn't listed (e.g. a frozen pie doesn't list wheat flour or gluten) - you should check this with your supplier before selling it.
- Even if you are selling food made and packaged by others, it's your responsibility to check that the food is labelled correctly. 'A guide to food labelling' will help know what you should check for: http://www.mpi.govt.nz/document-vault/2965 (http://www.mpi.govt.nz/document-vault/2965)

Why is knowing what's in your food or drink important?

- Rules about using some ingredients and inputs in food take into account the effects on human health across the diet as a whole. Sometimes use of ingredients or inputs is limited to certain foods to ensure people's health is not put at risk by getting too much, or too little, of a substance or nutrient. The rules also take into account views of the general public about what they expect to be in their foods (or not).
- New ingredients, or inputs, that are found or developed need to be assessed as safe before they can be used in foods.

- Knowing and being able to tell customers what's in your food will allow them to make informed choices. This is especially important for people with food allergies. Food allergies can result in life-threatening reactions that can occur within minutes of eating the food.
- If you are making foods on behalf of other businesses (e.g. a contract manufacturer) you are responsible for ensuring any ingredients used in your business are safe and suitable (it's not okay to receive mystery ingredients and mix them together)

D

Do

What do you need to do?

- Either the ☐ day-to-day manager, or ☐ delegated person (name: ______________________) (tick as appropriate) must be able to talk to customers about what's in their food.
- You /your staff must know how important it is to be aware of allergies and allergens, and the effect they can have on your customers.
- Read the labels of your ingredients and inputs. You must be able to understand them so you know what's in your food or drink.
- You must check all of the ingredients in food, as well as sauces, garnishes served with, or added to food so you know which ones contain allergens.
- You must be able to clearly identify all food additives, ingredients and processing aids used in your food and drink.
- You/your staff must ensure that your recipes or specifications meet the rules in the Code.
- You must only use approved ingredients, food additives and processing aids which are outlined in the Code. You must not exceed the maximum limit of a specific food additive or processing aid.
- You must keep details of the ingredients you use (e.g. record and follow your recipes so you know what allergens they contain).
- You/your staff must know which foods or drinks you serve contain any of the allergens listed in the Know section. You /your staff must know how important it is to be aware of allergies and allergens, and the effect they can have on your customers. You/your staff must be able to tell customers if your food or drink contains any of the allergens listed in the Know section.
- You/your staff must know which foods or drinks you serve contain any of the allergens listed in the Know section. You /your staff must know how important it is to be aware of allergies and allergens, and the effect they can have on your customers. You/your staff must be able to tell customers if your food or drink contains any of the allergens listed in the Know section.
- You/your staff must know which foods or drinks you serve contain any of the allergens listed in the Know section. You /your staff must know how important it is to be aware of allergies and allergens, and the effect they can have on your customers. You/your staff must be able to tell customers if your food or drink contains any of the allergens listed in the Know section.

S

Show

What do you need to show?

- Show your verifier:
  - how you know what is in the ingredients or inputs you use,
  - how you know the recipes or specifications you use meet the rules in the Code,
  - how you know which food additives and processing aids are safe to use in your food or drink, and how much you can use.
- Your verifier may ask you or your staff to tell them which foods contain allergens.

Packaging and labelling

K

Know

What do you need to know?

- Unsafe and/or unsuitable packaging can make your food and drink unsafe. You need to know that the packaging you use is suitable for use with food and drink so it keeps your product safe.
- Not all food or drinks have to be labelled, but for those that are, the labels must meet the rules in the Australia New Zealand Food Standards Code (the Code).
- Some food or drink can become unsafe over time, even though it still might look, smell and taste OK. It's important to let your customer know when to eat your food by, by calculating the shelf-life and providing a Best Before or Use By date
- MPI has developed a guide to help you create your food label:
  - Follow 'A guide to food labelling' https://www.mpi.govt.nz//document-vault/2965 (https://www.mpi.govt.nz//document-vault/2965) to write your label.

Package

- Only use packaging that doesn't cause, or contribute to, food or drink becoming unsafe or unsuitable.
- Check that packaging is intended for your type of foods or drink or use.
- Handle and store packaging with the same care as a food or drink, ingredient or input.

Why is packaging important?

- Packaging protects your food or drink from becoming unsafe or unsuitable.
- Anything that touches your packaging (i.e. bugs, chemicals or foreign matter) can make your food or drink unsafe or unsuitable.

Labelling

- For all food and drink you label you must meet the rules in the Code.
- If you are supplying bulk food or drink, these will generally need to be accompanied with a packing or specification sheet. You must supply the same information that would go on the food label.
- If your food or drink doesn't have to be labelled, you must still be able to tell your customers:
  - what's in the food or drink,
  - any warning statements,
  - if the food or drink is made from or contains genetically modified ingredients or irradiated foods.

Why is labelling important?

- Labels allow your customers to make good and safe choices.
- Some of your customers may have medical conditions (e.g. allergies) which require them to include or avoid certain foods in their diet.
- Consistency in the layout of label (e.g. having a nutrition information panel and using minimum font sizes) can help your customers make good choices.

Why calculate the shelf-life of a food?

- You might need to work out the shelf-life of a food so that you can apply a date mark.

- There is a guide to help you work out shelf-life. Follow 'How to determine the shelf-life of food' http://mpi.govt.nz/document-vault/12540 (http://mpi.govt.nz/document-vault/12540)
- Food that has a shelf-life of more than 2 years, or is an individual portion of ice cream or ice confection (e.g. a popsicle) does not need to be date marked.

D

Do

What do you need to do?

Package

- If you are packaging food or drink you must:
  - implement procedures for ensuring packaging will not cause, or contribute to, food or drink becoming unsafe or unsuitable,
  - only use packaging that is suitable for use with food and drink. Either:
    - purchase packaging labelled as being suitable for food or drink, or
    - get an assurance from your supplier that it is food grade,
  - calculate the food's shelf-life (if applicable), and apply the appropriate date marking, identify whether you need to either:
    - label your food or drink, and/or
    - provide a packing or specification sheet with bulk food or drink (e.g. catering packs).

Label

- You must meet the rules about labelling in the Code for any food or drink you label.
- Labels or specification sheets must include:
  - name of the food or drink,
  - lot/batch identification,
  - name and address of your New Zealand or Australian business,
  - any applicable advisory statements, warning statements and declarations,
  - any conditions for storage and use,
  - ingredients list (not required for standardised alcoholic drinks),
  - date marking (e.g. Use By, Best Before etc.) (not required for food or drink with a shelf-life of more than 2 years)
  - net contents,
- nutrition information panel (not required for alcoholic drinks - unless a nutrition content claim is made),
- information about nutrition, health and related claims (only if you've made a claim) (you can't make health claims about alcoholic drinks, but you can make nutrition content claims about carbohydrate, energy and gluten),
- information about characterising ingredients and components (not required for standardised alcoholic drinks),
- if the product is or has been made with genetically modified foods or irradiated foods.

S

Show

What do you need to show?

- Show your verifier:
  - your packaging and how you know it is safe and suitable for the foods you are packaging,
  - your food and drink labels and how you know what to put on them.

Cooking using the sous vide method

K

Know

What do you need to know?

- The sous vide method cooks foods at temperatures in the danger zone (at or below 60°C). It is possible to do this safely - but only by managing this process very carefully. Mistakes can lead to people getting sick or dying.
- Cooking foods at a lower temperature takes longer to kill bugs.
- If the cooking temperature is too low, bugs cannot be killed.
- Harmful bugs will survive and grow if you do not follow the time and temperatures below.
- This process only applies to meat and poultry cuts.
- This process does not cover whole birds (e.g. chicken, duck), fish or cooking in a sous vide oven. If you wish to do this, you will need to develop a custom FCP and provide evidence (validate) that your process means you can do this safely.

D

Do

What do you need to do?

- When preparing meat and poultry cuts to be sous vide, you/you staff must:
  - keep raw and ready-to-eat foods separate by either: (tick as appropriate)
    - ☐ not using your vacuum sealer for ready-to-eat foods if it is used for raw meat, or
    - ☐ cleaning and sanitising your vacuum sealer before using it for ready-to-eat foods,
  - cut meat and poultry pieces into equal portions so they are the same size, weight and shape,
  - store vacuum sealed product prepared for sous vide in the fridge until it is used.
- When setting up your water bath, you/your staff must:
  - calibrate water baths at least monthly,
  - make sure water is always able to circulate freely,
  - only use cooking equipment which has accurate and consistent temperature control,
  - preheat your water bath to at least 55°C for red meat and 60°C for poultry,
  - have good water circulation in your water bath,
  - change the water in the water bath after each batch.

- When cooking using the sous vide method, you/your staff must:
  - always completely submerge packs and make sure they are evenly distributed,
  - record the water bath temperature regularly or use an inbuilt data logger,
  - always keep the water bath temperature above 55°C when cooking red meat and 60°C when cooking poultry at all times,
  - the meat or poultry must reach the temperature of the water bath within 4 hours, if it takes longer, it must be thrown out.
  - always test the temperature of the meat or poultry using a needle probe thermometer at the thickest part of the meat or poultry,
  - always test the meat or poultry which has been in the coolest part of the water bath,
  - check the temperature of the thickest part of the meat or poultry:
    - at the start of cooking the batch, and
    - before the start of the holding time, and
    - at the end of cooking the batch,
  - check that the vacuum seal has not been broken after taking the temperature,
  - always finish cooking one batch before adding chilled food to the water bath.
- You/your staff must only use the following time and temperature combinations: (the times below are holding times, they only start once your product has reached the required temperature)

Internal temperature and holding times				
Internal food temperature °C		Cook-serve: Serve immediately or within 2 days of cooking		Cook-Chill: Serve immediately or within 5 days of cooking
		All meats except poultry Time (Minutes/hours)	**Poultry Time (Minutes/hours)**	**Red meat and poultry Time (Minutes/hours)**
Temperature danger zone *	**55**	420 mins / 7 hrs	Poultry must not be sous vide at temperatures lower than 60°C	If storing sous vide red meat or poultry for longer than 2 days, **do not** cook at temperatures lower than 60°C
	56	296 mins / 4 hrs 56 mins		
	57	208 mins / 3 hrs 28 mins		
	58	147 mins / 2 hrs 27 mins		
	59	104 mins / 1 hr 44 mins		
60		73 mins / 1 hr 13 mins	56 mins	91 mins / 1 hr 31mins
61		52 mins	40 mins	63 mins / 1hr 3mins
62		36 mins	29 mins	44 mins
63		26 mins	21 mins	30 mins
64		18 mins	15 mins	21 mins
65		13 mins	11 mins	15 mins
66		9 mins	8 mins	10 mins
67		7 mins	6 mins	7 mins

*minimum time once product has reached this temperature

- Once meat and poultry has been cooked, you/your staff must keep it in its bag until it is ready to be used and either:
  - serve it directly from the bag, or
  - remove it from the bag, sear it (or cook it in some other way) and serve immediately, or
  - keep it in the bag, cool it quickly by following the ***'Cooling freshly cooked food'*** card and store it below 5°C for up to 2 days (only if you/your staff use the cook-serve method), or
  - keep it in the bag, cool it quickly and store it below 5°C for up to 5 days (only if you/your staff use the cook-chill method).
- You/your staff must label cooked food with the date and time it was made, the type of food it is, whether it is cook- serve or cook-chill, and throw out date.

Proving your method

- If you/your staff don't want to take the temperature of every batch you/your staff cook, you can prove your method of cooking works every time. See the ***'Proving the method you use to kill bugs works every time'*** card.

S

Show

What do you need to show?

- Show or tell your verifier:
  - how you/your staff calibrate water baths at least monthly,

  - a record of:
    - water bath temperatures before the food was added to the water,
    - the time taken for the food to reach the selected internal temperature,
    - the length of holding time once the food reached the selected food temperature,
    - internal temperature of the food at the start and the end of holding time,
    - cooling time (for products cooled and stored for later service).

Troubleshooting

When something goes wrong

K

Know

What do you need to know?

- Things don't always go as expected so you/your staff will need a procedure for dealing with things that go wrong.
- You need to keep a record of what you did when something went wrong. Your records need to clearly describe:
  - what went wrong,
  - who was involved,
  - how the problem was fixed,
  - the steps you've taken to make sure the thing that went wrong doesn't happen again.

- You need to keep your records for at least 4 years.
- If you need to recall your food and drink, you will need to follow the ***'Recalling your food or drink'*** card.

D

Do

What do you need to do?

- Take immediate action as soon as a problem affecting food safety and/or suitability is identified. Record the action that you or your staff took.
- Use your records to look over the past week/few days. Determine if anything has gone wrong in your plan, for example:
  - fridge temperatures were too high,
  - there was a sign of pests,
  - received food was not at the correct temperature,
  - poultry was not cooked to at least 65°C for 15 minutes,
  - food was not reheated to above 75°C for at least 6 seconds,
  - food was cooled too slowly,
  - food was transported at the incorrect temperature.
- If something's gone wrong, identify where the problem started and how many times it happened. Identify if a procedure is missing from your plan.
- If the food or drink you have processed is unsafe or unsuitable, you must identify if:
  - you/your staff need to separate any food or drink and stop it from being sold or used, or
  - a recall is required, or
  - it could be reprocessed to make it safe and/or suitable.
- Fix the problem yourself or tell the person responsible for that area about the problem.
- Take action to prevent the problem from happening again.
- Keep clear, accurate and complete records for at least 4 years.
- Notify your verifier as soon as practical, if any of your food or drink has become unsafe or unsuitable.

S

Show

What do you need to show?

- Show your verifier your records from times where things have gone wrong.
- You must show your verifier a record of:
  - what the problem was,
  - what you did to immediately fix the problem,
  - what changes you made to stop the problem from happening again,
  - how you kept food safe or made sure no unsafe and unsuitable food was sold.

Troubleshooting

Dealing with customer complaints

K

Know

What do you need to know?

- You need to be able to identify if the complaint is about food safety, suitability or quality.
- Customer complaints about food safety and/or suitability must be dealt with immediately.
- You must have someone responsible for dealing with customer complaints.

D

Do

What do you need to do?

- Identify who is responsible for dealing with complaints (tick as appropriate):
  - ☐ day-to-day manager, or
  - ☐ delegated person
  - Name:

- Identify if the complaint is about food safety, suitability or quality.
- If the complaint affects the food safety and/or suitability of a batch or individual item/dish, you must:
  - separate the affected batch until it has been proven to be safe, or throw out affected food or drink and associated ingredients,
  - check other food that has been in the same area or has been prepared at the same time and separate until:
    - it is proven to be safe, or
    - throw it out, or reprocess it to make it safe if it has been affected,
  - identify where the problem started,
  - fix the problem,
  - take action to prevent the problem from happening again.
- You must notify your verifier:
  - if someone who eats your food ends up sick, or
  - if someone could end up sick if they eat your food.

S

Show

What do you need to show?

- Show your verifier a record of all of the following if the complaint is about food safety or suitability:
  - the contact details of the person who made the complaint,
  - the date and time of the purchase,
  - your food that was affected including the
  - batch/lot ID,
  - what the complaint was about,
  - the cause of the problem,
  - the action you took immediately and the action you took to prevent it from happening again.

Troubleshooting

Recalling your food or drink

K

Know

What do you need to know?

- Food and drink that is unsafe or unsuitable can make people sick.
- You/your staff must be able to recall your food or drink if there's a problem.
- There can be 2 reasons for recalls:
  - your supplier may need to recall:
    - an ingredient, input or product, or
    - piece of equipment or packaging you use, or
  - you/your staff may need to recall the food or drink you have made from your customers because something caused your food or drink to become unsafe or unsuitable.
- There are 2 kinds of recall:
- trade level - where food that has been distributed to stores is being recalled,
- consumer level - where there is public notification of the recall.
- You don't need a recall procedure if you only sell food directly to the final consumer and it is for immediate consumption. Even if you don't need a recall procedure, you will still need to be able to identify if you/your staff have used any ingredients or inputs that have been recalled.
- The records you keep will help you in the event of a recall.
- There is helpful information about recalling food or drink on the MPI website: http://www.mpi.govt.nz/food-safety/food-recalls/http://www.mpi.govt.nz/food-safety/food-recalls/ (http://www.mpi.govt.nz/food-safety/food-recalls/http://www.mpi.govt.nz/food-safety/food-recalls/)
- MPI has guidance for developing a recall procedure here: ttps://www.foodsafety.govt.nz/elibrary/industry/recall-guidance-material-template/ (%20https:/www.foodsafety.govt.nz/elibrary/industry/recall-guidance-material-template/)

Why is it important to have good records and a recall procedure?

- Keeping good records means a recall can be conducted faster and more efficiently, minimising cost and impact on your reputation.

D

Do

What do you need to do?

- If something has gone wrong and your food or drink becomes unsafe or unsuitable you must:
- be able to identify if your food or drink has been affected,
- identify if the recalled food or drink is on display, has been sent to any other businesses, is in storage or been used as an ingredient in another food,
- identify if the recalled food or drink contact item (e.g. screw-top cap or plastic pouch) is being used in your business,
- follow all of the instructions in the recall notice,
- separate any recalled inputs, ingredients, food additives, processing aids and/or food or drink you have made and label it as 'Recalled - do not use'
- tell your supplier how much of their affected product is at your food business,
- arrange for affected product to be picked up and disposed of (or reprocessed, if applicable).

Processes of Interest

- Acidification
- Handling chilled RTE products
- High-pressure processing
- Reheating
- Slow or low temperature cooking

Products

- Ready-to-eat meals & snacks 02_010
- Ready-to-eat meals & snacks 07_010
- Ready-to-eat meals & snacks 18_090
- Desserts 07_020
- Minimally processed fruits & vegetables 01_050
- Minimally processed fruits & vegetables 18_050
- Pasta 07_030
- Baked products, with filling or icing 01_080
- Baked products, with filling or icing 18_080
- Baked products, without filling or icing 01_070
- Baked products, without filling or icing 18_070
- Processed meat, poultry & seafood products 01_030
- Processed meat, poultry & seafood products 18_030
- Ready-to-eat meals & snacks 01_090

S

Show

Sector

- Food retail sector where food businesses prepare or manufacture and sell food SEC-01
- Food service sector SEC-02
- Manufacturers of meals and prepared foods (not covered elsewhere in this schedule) SEC-07
- Retailers that handle food (but do not prepare or manufacture food) SEC-18

Trading Operations

- Retail

Scope of operations

Use this information to tell your local council or MPI exactly what your business does.

- Takeaway
- Caterer
- Eat in premises
- Home delivery
- Internet

Questions answered

What will you do?

- Make, cook or serve food or drink to be eaten straight away.

  Food businesses that may fall in this group include cafes, restaurants, bars or taverns, takeaway shops, food trucks, coffee carts, caterers, hospitals, rest homes, prisons, service stations, y

- Make, cook, pack or sell food or drink to be eaten later.

  Food businesses that may fall in this group include dairies, supermarkets, butchers, abattoirs, bakers, fishmongers, factories, your home or an online store, farms, wineries or breweries.

What will you do?

- Sell food directly to consumers.

Who will make or grow the food or drink you will sell?

- We will.

Which of these will you be?

- Restaurant or cafe.

What type of business will you make, cook or sell food or drink at?

- A restaurant, cafe, food truck, takeaway or service station.

  This includes making meals or snacks for sale from your home.

Will you sell food only once a year?

For example, selling Christmas cakes at a Santa parade.

- No

What will you do?

- Make or cook and serve food.

  For example, cook meals, make desserts or snacks, make sandwiches or fry chips.

- Handle unwrapped food or reheat food made by others.

  For example, reheat pies or pizza, scoop ice-cream, make milkshakes or sell bulk food.

Which of these will you cook, serve or sell?

- Meals, snacks or drinks that are ready to eat.

  For example, restaurant meals, catered food, takeaways, sandwiches, pies, filled rolls, smoothies, milkshakes or freshly-squeezed juice.

Will you sell food or drink to other businesses for them to sell to someone else?

- No

Will you sell food for animals?

- No

What will you sell?

Not including using them as ingredients.

- Processed meat, poultry, fish or seafood products.

  For example, jerky, smoked chicken, cold smoked fish, salami, sausages or fish fingers.

- Fresh fruit, vegetables or fungi.

Thanks, will you sell any of these?

- Baked foods without filling or icing.

  For example, muffin, slice or cake.

- Baked foods with filling or icing.

  For example, cupcakes, custard square, cream bun, sandwiches or filled rolls.

- Meal or snacks that are ready-to-eat.

  For example, meat pie, samosa, pizza or quiche.

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Will you make and pack chilled or frozen meals that your customers will take away to eat later?

For example ready meals, TV dinners or desserts

- Yes

Which of these will you make or pack?

- Meals or snacks that are ready-to-eat.

  For example, frozen or chilled butter chicken, burritos, dumplings or samosas.

- Desserts.

  For example, soy or coconut ice-cream.

- Fresh pasta or noodles.

Which of these will you do?

- Cook or bake food.
- Chill cooked food.

Will you defrost (thaw) frozen food or drink?

- Yes

Which of these will you do?

- Use acid to preserve food or drink.

  For example, make mayonnaise, pickles or other condiments that don't need to be kept in the fridge.

Which of these will you do?

- Handle chilled ready-to-eat products with a shelf-life of more than 5 days.

  For example, cutting cheese into wedges or slicing salami.

- Reheat cooked food.

  For example, reheat a pie or curry.

Which of these will you do?

- Cook using the sous vide method (low temperature cooking in sealed vacuum bags).

Which of these will you do?

- Use high-pressure processing to extend the shelf-life of food.

  For example, salad dressing, juice, salads, guacamole, smoothies or meat.

Which of these will you do?

- Provide catering for events.
- Home delivery.

  For example, deliver pizza, meals-on-wheels or groceries.

- Sell takeaways.

Will you provide food or drinks to be consumed on-site?

- Yes, food and non-alcoholic drinks will be provided.

Which of these will you do?

- None.

Will you sell food over the internet?

For example, through your own online portal or you interact with a customer through a third party online market place such as UberEats, Trade Me or Facebook.

- Yes

Where will you get the water for preparing food, cleaning and washing hands?

- A registered supplier.

  For example, from a council supply.

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