FMG
Advice & Insurance

THE FUTURE OF INSURANCE

www.fmg.co.nz

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Summary

This document covers a broad change agenda based on a full market scan using the ESTEMPLE framework. Industry leaders and experts were interviewed to provide a qualitative and human element to understanding the change and impact on insurers.

From these interviews and market review, the overwhelming driver for change is technology. We were inspired by what technology can do when it's applied by people focused on enhancing relationships and partnerships.

Technology promises to deliver lower cost models and we are seeing major New Zealand insurers investing in technology and restructuring their teams and systems to be ready. However, old legacy systems are still 'soaking' up resources and making the change difficult to fully implement. This is creating vulnerability for existing insurers with risks of being overtaken by new business models and well capitalised start-up offers.

Economically we have seen a strong move in the last 12–18 months towards risk-based pricing and insurers exiting selected markets, indicating a shift of risk appetite. New Zealand is open to the ups and downs of the global economy and insurers are not immune to big global shifts. New Zealand is an easy place to do business and while not a significant revenue generator for large global brands, it is an easy and open market.

Ecological areas are also shaping the future of insurance in the form of more extreme weather events and natural disasters. It is likely that more extreme storms and large natural disasters will occur. New Zealand is not a benign environment and insurers will have to manage these risks with solid capital plans, reinsurance support and by implementing clear pricing and underwriting signals for the market.

Liability arising from resource management and stronger regulation oversight will also occur, particularly for greenhouse gases, nutrient management and water usage.

Ethics will also drive regulators to take more oversight as insurers gain access to far greater amounts of information that can be used to decline claims, exclude risks and only offer cover to the best risks. Balancing consumer expectations for fairness and profit maximising for shareholders will be the tension for the industry to navigate.

With a big change agenda upon the insurance industry, it is clear that the nimble and innovative who leverage data and technology to value relationships and partnerships, will be the most likely to succeed.

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Introduction

FMG exists to provide a better deal for rural New Zealand through the provision of General and Personal insurance.

These findings are important to FMG, because it creates a window into what the future looks and feels like. This will enable FMG's management team to prepare the organisation to respond to, lead within and create a future where it can succeed.

We used the ESTEMPLE and FMG's 'Service Profit Chain' frameworks to keep the work grounded and structured. We approached the work by engaging with wide stakeholders and experts to test our thinking and gain insights on the pathways likely to emerge in the future of insurance.

We also considered the implications for the provision of insurance to farmers and growers in New Zealand, which is informed by a separate workstream that ran in parallel on The Future of Farming and Growing.

Common amongst all our interviewees was a strong sense of disruption about to happen in the future of insurance. Technological advances and how they may be applied are accelerating the potential for significant disruption, but so too are the risks of large insurable events impacting on global and local risk appetite. There are many challenges and some significant choices for insurers to make, but these same factors present many opportunities for growth and continued wealth creation.

Using the above process and ESTEMPLE framework, four major areas have been identified that will drive the most change. These are:

- Technology
- Economics
- Ecological
- Ethics

We were both inspired and challenged by the fast pace of change and disruption likely to happen to existing insurance business models. In particular, the emergence of enabling technologies that will support stronger client relationships and reduce operating costs.

The New Zealand insurance industry will have a number of headwinds to navigate. Looming large are:

- climate change
- major natural disasters
- on-going reinsurance support and affordability
- creating ethical business models
- managing regulators' needs
- managing legacy systems
- implementing new technology.

Insurers that navigate these to their advantage will be best positioned for growth, while those who don't, or are too slow to react, will be left behind.

Within this report we have deliberately sought to form an opinion and take a position that reflects our interpretation of the interviews and research insights. We welcome further discussion and challenge of these opinions.

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Current environment

The New Zealand economy is relatively stable. Good commodity prices in our traditional markets, strong trade relationships and access, a stable government—with a slight shift to the left of centre, low government debt levels, a history of managing macro shocks well, low unemployment, historically low interest rates (albeit higher than global comparisons) and low inflation.

However, some dark clouds are appearing.

- Trade challenges are regularly emerging—concern that global economies are slowing (China).
- Technology will disrupt food production.
- Ethical considerations are pressuring many business methods including insurance.
- Uncertainty over retail business models with disruption and global domination by a few.
- The implementation of a series of new legislation, regulation and compliance requirements.

New Zealand is well placed to face the key challenges with a skilled workforce, good trade relations, a stable government and a business community embracing change. However, navigating the change to a world where technology is driving new business models, will require a nimble leader. Insurance leaders of the future will not be able to sit back and default to previous pathways to success.

The future needs leaders who can implement new technology quickly, leverage data for everyday business decisions, manage scarce capital/reinsurance for major disasters and develop wide partnerships to fuel growth.

The New Zealand Insurance market is relatively stable with it now (largely) past the Canterbury and Kaikoura earthquakes and building towards stronger underlying profits. Company combined ratios are providing stable returns to shareholders and customers have accepted revised products, excesses and pricing adjustments.

The larger insurers in New Zealand remain Australian owned and increasingly Australian directed, with strategies, product development, pricing and systems reliant on Australian teams. This is to allow for more efficiency across their groups and will drive greater cost control. However, this approach is allowing smaller and more nimble insurers to develop a market niche and achieve sizeable market share.

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Areas of focus

The ESTEMPLE framework is used to provide a consistent approach to reviewing the New Zealand insurance environment. Based on the in-depth interviews conducted with industry leaders and influencers, we have placed more emphasis on Technology, Economics, Ecological and Ethics as areas that are significantly shaping the future.

The ESTEMPLE framework is provided below. Insurance leaders will have to navigate their changing world and make strategic choices, including what is the role for The Insurance Council of New Zealand (ICNZ) in defining how the insurance industry collectively leads on pre-competitive areas like sharing information on national disaster preparedness and how individual organisations will ethically apply technology.

Economics

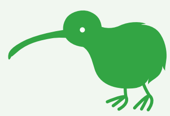
The future is driven by new economic models where insurers apply technology to remove cost and/or improve service.

Traditional shocks to the economic model of insurance, largely come in the form of not enough reinsurance—either immediately post event (AMI)—or a longer-term shift in risk appetite (difficult to get earthquake cover in California or flood cover in Houston).

Within New Zealand we have seen a strong move in the last 12–18 months towards risk-based pricing and insurers exiting selected markets (such as Wellington property), indicating a significant shift of risk appetite. We expect this trend to continue as insurers look to balance their portfolio of risks and drive profitability. This is considered further under the Ethics section.

New Zealand is fully open to the ups and downs of the global economy and insurers are not immune to big global shifts, such as the use of technology. New Zealand is an easy place to do business and while not a significant revenue generator for large global brands, it is an easy and open market.

NEW ZEALAND IS UNIQUE. NOT SIGNIFICANT TO BIG PLAYERS, BUT IS AN 'OPEN MARKET' THAT CONNECTS WELL TO THE OUTSIDE WORLD TO ADOPT THE BEST IT OFFERS.



Kiwi values. New Zealand is an easy place to do business with, and is open to the best the globe can offer

100% PURE

New Zealand's brand, product and people are well liked, respected and valued for its unique 'promise'

New Zealand is an export focused economy, uniquely (for a developed country) focused on primary products without subsidies

ACC

EQC

New Zealand government creates a unique market, giving all access to affordable cover and smaller commercial insurance pools

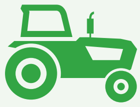
New Zealand takes the best of what the globe offers, but sets its own rules
- A fair society with government intervention to keep it that way.
- An open market with no subsidies.

New Zealand's future of insurance adopts global technology and business structures
- Global insurers less interested as small premiums (no subsidised programmes and no accident liability).
- New Zealand consumers and businesses are globally connected and adopt the best global insurers can offer as a by-product.
  For example:
  – insurance bundling with large brands will be adopted quickly by New Zealanders
  – technology to underwrite and service insurance will be quickly adopted by insurers.

CONSUMERS HAVE LOYALTY AND TRUST WITH BRANDS AND CONVENIENCE OF BUYING MORE WITH THEM IS APPEALING.

Best new builds
- 10-year builder's guarantee plus 5 years full replacement insurance and service plan.

Best new cars
- $25,999 includes car, WOF, 3-year service, 5-year finance, 5-year insurance.



Best new equipment
- New machinery includes 3-year financing, maintenance and full insurance.

Personal health tech
- Top 10% of active users will get premium offers including better life and health insurance.

Globally relevant insurers will set the rules with big brands
- Insurers who partner with global and local brands will increase market share.

New Zealand consumers are very open to taking the best on offer. They are highly digital, open to global brands and applying what works well for them. This includes being open to offers from Amazon, Apple, Alibaba. Therefore, new business models are likely to be tried and if suitable to Kiwis, taken up quickly.

For the last 10 years the reinsurance market has largely been an easy place to get capital, even after the Canterbury earthquakes. However, if capital markets' risk appetite and/or perceptions of risk change, then New Zealand insurers may find it more expensive or harder to get support. A large local event, such as a sustained series of earthquakes in the Lower North Island, could tip the balance. Alternatively, a global event may make reinsurance capital support harder to source. Being prepared for these outcomes will be important, as much as they are outside immediate control.

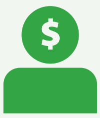
We expect the New Zealand insurance market to experience significant disruption in the next 5–10 years.

Most at risk are organisations whose primary competitive differentiation is based on efficiency (price) and their product offering is largely transactional (domestic house, car and contents).

Technology-driven solutions underpinned by massive scale, can sustain expense ratios that local (or regional) providers won't be able to match. The evolution of compliance and regulation is a potential counter to this development that could present significant barriers to new entrants.

NEW ZEALAND REINSURANCE SUPPORT CAN BE IMPACTED BY GLOBAL CAPITAL MOVING ITS APPETITE AWAY FROM 'CATASTROPHE BONDS'.

Frequency and severity of global events may increase
- Climate change.



Available capital for reinsurers is reduced
- Losses from major global events may be greater than expectations OR
- Alternative markets may provide better returns OR
- A major event in Australia may impact available capital in New Zealand given dominance of Australian–owned insurance companies.

New Zealand insurers will have to increase their own capital reserves
- Reinsurers' access to capital is reduced.
- Higher premiums are required and/or higher first loss excesses.
- New Zealand insurers will have to provide more of their own capital.
- While prudent to prepare for this eventuality, the existing state may also prevail given continuing abundance of capital, e.g. global pension funds.

Social

Social aspects of an aging workforce and increasing use of technology are set to continue. This will challenge both the future of work and the types of insurance support that will be required. The emergence of the sharing economy is an obvious example. It will likely require a shift from insuring ownership—such as for a car—to the individual insuring their usage of shared items.

Social aspects will also become an important part of consumer-led demand. Insurers' social license to operate is hard won and can be quickly challenged. A recent example being regulatory reviews in Australia and New Zealand, which resulted in a rapid reduction in trust of the wider insurance industry. This can also create an opportunity for new competitors to enter the market.

We believe this also creates opportunities for differentiation by highlighting structural advantages of different business models, such as mutuality or peer-peer in InsurTech language. As a mutual's owners are also clients, it removes the potential for conflicting priorities such as recent reviews highlighting where companies have prioritised shareholder interests over consumers.

Technology

We are inspired by what is possible with technology—it is a significant shaper of the future of insurance. Technology is promising much to the industry including:

- cost efficiency
- reduced claims wastage
- accurate underwriting
- personalisation

Many insurers see these as significant ways to remove costs, increase competitiveness and improve shareholder returns. However, it is also an 'arms race' in fear of a 'zero-sum game' where all insurers are heavily investing in technology as they fear being left behind.

A significant impediment to a swift change in technology is the management of old legacy systems, which 'soak up' a lot of resource. That is where the potential for disruptive start-ups and alternative business models can leap frog existing insurers.

A successful insurer of the future will have flexible technology that integrates well with consumers' needs, data partners, trusted networks and smart tools.

Where we see a potential trap for existing insurers is being overly optimistic about the ability of technology to capture cost efficiencies and generate higher shareholder returns. Three reasons why this is unlikely are shown below.

1. It is a zero-sum game with all insurers investing to become more efficient—any savings go into being more competitive.
2. Savings targeted through a reduction in employees can lead to lower service delivery and lower retention.
3. Change management of large technology integrating with existing legacy systems are complex and often misintended time and benefit delivery.

A successful insurer of the future will have flexible technology that integrates well with consumers' needs, data partners, trusted networks and smart tools.

TECHNOLOGY IS AN ARMS RACE TO REDUCE OPERATING AND CLAIMS COSTS.
THE RISK OF BEING LEFT BEHIND OPENS OPPORTUNITIES FOR ACQUISITIONS AND CLIENT-FOCUSED INSURERS.

Insurers/brokers who have $$$ will acquire poor performers or best platforms

Technology promises much
- Reduce fixed costs with fewer roles.
- Low marginal cost and improved service.
- Accurate underwriting and less claims.

It's an arms race. Insurers are investing in technology as they fear missing out
- Deep pockets and Insure-tech start-ups at the 'bleeding edge'.

But key barriers to change exist
- Legacy systems soak up IT.
- Data quality.
- Existing processes need a paradigm shift.
- Employees feel threatened.

Opportunity for new models and people-focused insurers
- Corporate-focused insurers may be willing to trade poor service off against lower cost.
- Customer and employee-focused will create new business models and leverage technology to provide better service and careers.

Insurers and brokers who do not navigate technology will be left with higher costs and lower customer service than peers
- Smaller insurers will need to partner wisely and be fast followers to avoid being left behind.

Meanwhile, insurers who use technology to provide better service for less cost will develop deeper trust and experience sustainable growth.

Consequently, we view cost efficiency as more of a 'ticket to the game', which every insurer must focus on—rather than a competitive differentiator.

We don't doubt that some will be successful in implementing changes and that new disruptor businesses will enter. However, we also believe that others will fail to adapt and be vulnerable. We also believe organisations that get too focused on adopting technology to reduce costs will miss the opportunity to apply technology to increase service and customer appeal.

With smart tools, 'assisted intelligence' and personalised data, insurers of the future will be able to provide greater levels of relationship and stronger relationship propositions. To do this, data partners will be needed to create a richer view of the customer and make the interactions easier and more valuable. For example, having access to medical records for personalised underwriting that is easy and fair; or support a client who is involved in a car accident by contacting a predetermined relative to pick children up from school.

A significant barrier to this adoption will be the willingness of consumers to share their data—especially when it is not in their favour. Adoption of telematics in vehicles over the last couple of decades is illustrative—where insurers report that 'good' drivers predominantly opt in to using telematics, while the large majority opt out.

INSURERS WHO APPLY TECHNOLOGIES TO RELATIONSHIPS WILL ADVANCE. DATA AND TECHNOLOGY PARTNERS WILL BE NEEDED TO CREATE A FULL SERVICE OFFERING.

QR Codes attached to buildings and assets pre-loss to make claims assessment easy

Blockchain trusted network used to quickly settle claims and replacement parts arrive within 24hrs

Drones deployed to conduct pre-loss assessments and collect post-loss information for trusted network

Partnerships with rural retailers to print spare parts for key machinery to minimise business interruption

Self-service online used to help make insurance easy, transparent and part of a full service offer

Less time required on manual tasks as 'robots' manage transactional processes to make insurance quick and accurate

Many insurers are looking at technology as a way to reduce cost
- May miss opportunity to support a better customer experience (direct robo advice vs intelligent assistant for employee).
- At risk of large data /partner (Amazon, Google, Airbnb) player taking over.

Future leaders of insurance will look at technology as a way to provide better service for less
- Reduce time to assess losses.
- Speed claims settlement.
- Use self-service as a part of full offer v left with a chatbot/impersonal.
- Artificial intelligence (AI) enables faster data access and targeted service.
- Minimise people interactions with transactional process.
- Maximise relationship opportunities e.g. faster and empathy.
- Data management—collection across more customers' needs.
- Data and tech partners to form 'trusted networks'.

We expect the requirement will increase for vendors to provide real value in exchange for their client's data and that insurers will meet this challenge, but it will be a progressive process over a number of years. For example, a health and lifestyle monitoring band would likely be much more appealing—even to less healthy individuals—if it reliably predicted and enabled avoidance of a heart attack.

PERSONAL INSURANCE IS RIPE FOR PERSONALISATION THROUGH TECHNOLOGY ADVANCEMENTS. SYSTEMS AND PROCESSES WILL BE MADE EASIER.

New data and information available on genetic disposition

Customised health plans and lifestyles—consumers want recognition

Medical records quickly and easily available

Individual health information regularly updated and tracked

Existing paradigms weighted to serving insurance agents (life advisor)

Insurers who engage new data and information can implement personalised service through new business models
- Proactive advisors can target specific groups (fittest, active).
- Contracts and premiums based on keeping healthy (and being tracked).
- Pre-emptive services by targeted healthcare based on genetics.
- Streamlined underwriting service i.e. medical records reviewed without forms.
- Agents still required to run 'positive interference' (underwriting and claims) and overcome buyer apathy.
- Leading the way with robo-advice.
- Bridging the separation between Life and Fire and General segments.

TECHNOLOGY REMOVES SOME OLD RISKS AND INTRODUCES SOME NEW RISKS TOO.

New technology lowers risks of accidents and 'personal' liability
- Autonomous vehicles = safer driving.
- Robotics = safer work.

New IP and brands to engage directly with consumers
- IP developed in agri-tech to be exported.
- Brands being developed to sell directly to consumers.

Consumers (and farmers) use technology to access and share what is needed, when needed
- Shared economy, fewer owners, more users.
- Everything from cowsheds to tractors to employees will be shared by farmers and growers.

Farmers are keen adopters of technology to improve their farm businesses
- Robots, drones and autonomous vehicles will be common amongst future farmers' assets.
- Data and digital assets will be used to drive business performance and create IP.

Insurers will respond…
1. Develop easy cover for shared asset use.
2. Support agribusinesses protecting their own brands and IP.
3. Support lower risk via new technology through sharp pricing and underwriting.
4. Innovate product offerings for tech assets and digital assets.

The future of what is insured will change with more technology readily available, including robotics, autonomous vehicles and more complex organisations that use technology to run businesses.

Blockchain will develop trusted networks to support asset registers, define location of assets, changes in asset risk and efficient payment triggers to assist businesses, including fast and efficient processes with their insurance companies. Managing claims through blockchain-styled networks and the development of parametric products based off trusted network data, are areas already being developed by insurers. However, the speed of adoption is difficult to assess as some critical challenges are yet to be addressed before this technology can deliver on its promise.

While the use of new tools is set to greatly change the future of insurance, it is also worthwhile noting the role of data, developing stronger data partners, creating clear business structures and improving business skills in analytics. This should be a strategic imperative to any insurer's future success.

NEW ZEALAND HAS MANY SIGNIFICANT UNPREDICTABLE RISKS AND CLIMATE CHANGE BRINGS WEATHER EXTREMES. MORE SIGNALS FROM INSURERS OF WHAT IS 'GOOD' WILL COME.

New Zealand is susceptible to natural disasters

Climate change is increasing storm frequency and extremes

Global reinsurers need to ensure risk is 'worth it'
- Premium increased to match average annual expected losses.
- Only the best assets with lowest risk profiles accepted.

Underwriters will have power to price and reject poor risks
- 100% of building code may be uninsurable if 130% is the new average.
- GWP focused (or naive) underwriters get left with 'long-tail' risks.

Consumers, businesses and 'planners' will need early signals of where and what is insurable

Insurance industry and its leaders have an opportunity to create a 'pre-competitive' space to benefit New Zealand on where to build and how to lower damage from natural risks

Ecological

New Zealand is susceptible to natural disasters, primarily earthquakes, but also tsunami, volcanic and severe storms. These present significant threats to the sustainability of New Zealand's insurance market and what it can offer. Separately, ecological and environmental areas are a much bigger focus area of politicians and legislative changes driven by consumer/voter demands for more sustainable business models.

Climate change is predicted to provide more weather extremes. In particular, storms will impact the insurance industry through higher frequency of extreme storms with larger storm surges, exacerbated by rising sea levels.

ONE MAJOR EVENT AWAY FROM AREAS/ALL OF NEW ZEALAND BECOMING MUCH MORE EXPENSIVE TO INSURE FOR NATURAL DISASTER.

New Zealand is susceptible to natural disasters

Climate change is increasing storm frequency and extremes

New Zealand may have another major disaster in the next 20 years

Global reinsurers appetite is exhausted
- Premium pool not big enough for expected and experienced losses.
- Only the best assets with lowest risk profiles accepted.
- Most cannot access affordable cover.

New insurance offers for the best risks develop
- Diversified risks with minimal concentration can pool together to obtain wider cover.
- Captive insurance options for large corporates.
- Specific geographical cover options.

New Zealand and the insurance industry have significantly increased its understanding of natural disaster risks, with the Canterbury (and subsequent Kaikoura) earthquakes redefining where risks are; what magnitude of damage they can create and how often they can occur.

Insurers will need to prepare for several scenarios that will likely occur and stress their capability and capacity to respond. As highlighted in the Economics section, insurers will need to prepare for an eventual outcome of lower reinsurance support, as well as ensuring they have access to adequate capital to survive a big event.

> New Zealand and the insurance industry have significantly increased its understanding of natural disaster risks.

Media

While not a major driver of change, the media will influence consumer preferences and understanding of insurance, as well as being a key player in ethical discussions. It is likely that media will focus on areas of ethical behaviour of insurers including:

- the use of data
- lower cover for higher risks
- transparent commissions (particularly in the personal insurance market).

Insurers' response to major disasters and the post event handling of clients will also be focus areas. Additionally, if the reinsurance market's appetite changes—and natural disaster cover reduces—the media will play a vital role in communicating changes. They will also critique any changes and the ethics of the industry, as well as the role of Government, who will become the default insurer in areas the industry exits.

Political

The New Zealand political system will support a stronger focus on ethics driven by consumer preferences. New Zealand has a stable and efficient political sector and the Government generally runs a low debt and fiscal surplus model that allows it to support the economy during major shocks.

The 2017 election of a 'left of centre' government has expedited a stronger compliance, social and environmental set of policies. Fairness of the system and oversight of insurers will remain a part of the legal framework and continue to have increasing focus.

There is potential for the Government to intervene in the market following a major event. For example, creating Southern Response to provide market confidence post the Canterbury earthquakes, when AMI could not meet its claims commitments. In future, the Government may need to consider extending the Earthquake Commission (EQC) or Accident Compensation Corporation (ACC) to provide greater protection if the market cannot support a 'fair and equitable' market place—most likely if natural disaster cover is reduced.

As richer data and information on natural disasters and climate change impacts become available, the insurance industry (ICNZ) has an opportunity—in the pre-competitive space—to send the right signals to local and central government. Particularly to their planning teams on areas to build towns and where to focus risk mitigations.

CONSUMERS AND REGULATORS EXPECT GREATER CONFIDENCE AND FAIRNESS FROM THE INSURANCE INDUSTRY. MUTUALS HAVE A STRATEGIC TRUST ADVANTAGE.

Insurance industry has low consumer trust
- Commission sales.
- Australian Royal Commission Review.
- Expectations for claims denial.
- Low touch interactions.
- One-sided relationship: pre-existing conditions excluded; financial literacy.

Insurers need to have access to large capital for major events, which needs scrutiny and good management
- Tower v Peak Re dispute.
- AMI failure from long tail risk.
- CBL liquidation.
- Western Pacific liquidation.

Management of data and personal information has 'new power'
- Personal information can be used against or for other purposes.
- Companies have 'all responsibility but no care' to protecting privacy.

Consumers and regulators want more confidence and fairness from the insurance industry
- More oversight from regulator.
- Consumer protected financially, carefully and ethically with updated laws and regulations.

Leading insurers have an opportunity... is this a defining moment for mutuals?
- Transparent advice and sales/commissions.
- Data privacy agreements and protocols.
- Customer collaboration to best use data for their benefit.
- 'Bad' profits removed/transparent pricing.
- Share insights on 'prone' areas, risk management and 'helpful' tips.
- Expand what can be achieved from existing ICMIF global mutual network.

Legal

The legislative future will include additional regulations on insurers. Specific legislative areas that will have high impact on the future of insurance, include the impending reviews of the Privacy Act, Prudential Supervision and Insurance Law Reform Act. However, regulations over the insurance industry are expected to stay relatively light, compared to the banking sector.

We believe that mutuals have a strategic trust advantage with regards to perceptions of trust and fairness. This is due to mutuals being owned by clients, removing a key potential area of conflicting priorities.

Other areas notable of regulation, include compliance with the new Fire and Emergency New Zealand (FENZ) Act—although this is now being revisited—EQC reforms and ACC. While not major shapers of the future, these tend to be complicated and take time to navigate. There is also a potential for the Government to intervene if they perceive that the insurance market is 'unfair' or not providing the appropriate economic or social behaviours. For instance, EQC and a natural disaster response or ACC and health and safety legislation, with changes now coming through recent court judgements with the ability to top-up ACC compensation.

FMG will also have to navigate to legislation specific to farmers and growers, such as liability in areas of greenhouse gas emissions, nutrient management, animal welfare and water management.

ETHICS: WHAT'S THE POINT OF INSURANCE IF ONLY THE WEALTHIEST AND HEALTHIEST HAVE ACCESS? GOVERNMENTS WILL INTERVENE IF TOO EXTREME.

The healthiest/best genetics and lifestyle will join together to create a 'low-risk' global pool of people

The wealthiest/best assets with lowest risk profile will join together to create a 'low-risk' global pool of assets
- Creating captives and self insurance too.

As the healthy and wealthy create their own 'global' pool, 'average' people and businesses insurance becomes more expensive and less cover is likely

Local regulators may 'step-in' to make access to insurance compulsory and fairer e.g. Obama-care, EQC, ACC

Ethics

Ethics is becoming a major driver of change. We have entered a period of consumer-driven organisations. Consumers are more demanding and shareholders of organisations are taking the 'power' shift more seriously, advancing ethical demands on insurance.

Tension is likely to increase in this area as insurers develop more sophisticated data and information on risks. This will lead to an isolation of the best risks receiving the best covers, while the rest receive less cover and the worst risks none at all. This goes against a long history of 'pooling' wide risks to benefit everyone—the many paying for the unlucky few.

Consumers and regulators expect insurers to be there in major events. With access to more data and information there is greater potential for claims to be declined based on consumer behaviour. Regulators will be conscious of what is fair and reasonable.

We expect a continuation of the insurance industry trend towards increasingly individualised risk-based underwriting and associated pricing. This is a structural change in the insurance industry that we expect to negatively influence public perception of insurers. This will likely lead to increased media resulting in government attention and intervention.

> We expect a continuation of the insurance industry trend towards increasingly individualised risk-based underwriting and associated pricing.

Despite the potential negative impacts, all insurers must develop a more granular understanding of their insurable risks and carefully navigate the balance between supporting their target market, while avoiding becoming the 'cliff top or flood zone' insurer of choice.

WITH BETTER INFORMATION UNDERWRITERS WILL TARGET RISKS WITH MORE CONDITIONS AND EXCLUSIONS... BUT HOW THEY APPLY THEM WILL BE THE DIFFERENCE.

Genetic information
- Personal genetic information available to show 'accurate' probability for illness and disease.

Land and building information
- Land and buildings structural integrity information overlaid with local risk factors provides an 'accurate' assessment of future losses.

All underwriters will have access to better information
- More exclusions for illness and disease + premium loading.
- More property uninsurable and customised underwriting.

Underwriters will feel greater tension between relationship and risk management

Option 1
Minimise human involvement to save costs
- SunCorp, IAG, Tower.
- Promises less errors, fewer people (cost), better claims management.
- Risk exclusion focused.

Option 2
Target human involvement to keep relationships
- Brokers, FMG, MAS
- Promises full package, cover all your needs and reduce risk plans.
- Risk management focused.

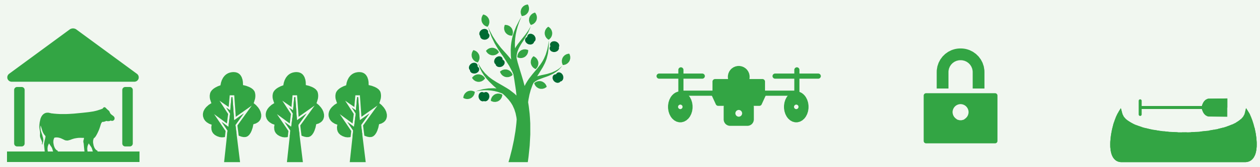
5

Insurance for farming and growing in New Zealand

As a rurally focused insurer, FMG must also consider the specific insurance needs of farmers and growers and how these are likely to develop in the future.

The future is bright for New Zealand farmers and growers, but it will be different and so will its people. We see the advancement of technology, compliance and required financial sophistication, driving a farmer that is more business and goal focused. On the flipside, we see traditional farming having less capital appreciation, continued price volatility and higher compliance leading to a future with fewer farmers 'in it' just for the lifestyle.

INSURANCE DEMAND FROM FARMERS AND GROWERS IS SET TO BE STRONG, BUT BEING OPEN TO NEW RISKS TO INSURE WILL BE IMPORTANT.



- Dairy to plateau but also intensify assets. More herd homes, effluent management, water, irrigation
- More forestry planted in high country and suitable land areas
- More horticulture infrastructure, machinery, cool stores, pack houses and produce
- New technology applied to farms, farm machinery and contracting
- More brands, product and farm IP to insure. More liability and export insurance products
- Agri-tourism and other ways to increase income and diversify bring new things and risks to insure

Insurers who focus on farmers and growers expanding and diversifying will be well positioned. Challenging areas include:

- Risk appetite for vertical integration.
- Risk appetite for cool stores and pack house.
- Risk appetite for liability in tourism and consumable product sales.
- Risk appetite for insuring new technology.
- Expertise in liability and technical advice areas will be needed.

FARMERS DIVERSIFY AND MOVE UP THE VALUE CHAIN, SEEKING A PARTNER TO HELP MANAGE MORE RISKS AND UNTESTED RISKS.

Farmers have to rely on more than 'capital gain' to drive wealth
- Land values limited by production limits to environment impact.
- New ways to grow businesses will be formed.

Farmers will diversify and improve business acumen
- Agri-tourism.
- Niche farm produce/brands.
- Diverse farm operations.
- Financially savvy.

Farmers look to do new things and take different risks to grow their business
- New ventures that are untested.
- Higher returns/higher risks.

Farmers will need better experts and advice to help manage wider risks
- Connected with trusted advisors 24/7.
- Pro-active management and 'helpful' tips.
- Virtual team with dedicated focus areas.

New products will be needed to manage wider risk appetite including untested risks
- Product recall
- Tourism liability
- Bio-security
- Cyber security/digital assets
- IP agri-tech
- Environmental liability

AS FARMERS AND GROWERS DIVERSIFY AND ARE HELD ACCOUNTABLE FOR ENVIRONMENTAL IMPACTS THEIR LIABILITY RISKS WILL INCREASE TOO.

100% PURE

To protect key industries and Kiwi values, farmers and growers will be held liable for negative impacts on New Zealand brand and environment
- Includes providing safe working conditions, animal welfare, nutrient management, environmental stewardship, bio-security and employment management.

As farmers and growers diversify they will encounter more liability risks to manage
- Product recall
- Tourism liability
- Bio-security
- Cyber security/digital assets
- IP agri-tech
- Environmental liability
- Contractual obligations

Wider liability products and future-proofed advice will be needed to manage a more complex farming and growing operating environment

There will be continued growth in demand for insurance, with the breadth and complexity of requirements increasing, primarily driven by increasing diversity and technology. This will bring a requirement to cover new and emerging risks, with cyber, drones and sensors being recent developments. Increasing regulation and compliance also means there will be increasing liability risks.

**BIO-SECURITY RISKS ARE A MAJOR CONCERN FOR ALL FARMERS AND GROWERS.
INDUSTRY BODIES WILL WORK CLOSELY WITH THE GOVERNMENT TO CREATE RISK MANAGEMENT TOOLS—INCLUDING INSURANCE.**

Major pest and disease incursions are a major concern for New Zealand farmers and growers

Farmers and growers are seeking greater industry and government coordination to keep pests and diseases out of New Zealand and better controls

Government and Industry bodies are creating agreements on how to respond and agreed priority focus and cost proportions

GIAs are well suited to become large insurance programmes
- United Wheat Growers scheme.
- GIAs put aside money for specific incursions.

**BIOSECURITY
DO NOT ENTER**

Farmers cannot insure for major pest and disease incursions and are becoming reliant on Government and Industry Agreements (GIAs) to 'underwrite' business

The future is bright for New Zealand farmers and growers, but it will be different and so will its people.

In addition to weather extremes, climate change will lead to an increase in pest and diseases due to warmer conditions—no frosts to kill insects or diseases. Horticulture and crop insurance will also demonstrate more volatility as crops are grown in new areas and extreme hail and storm events impact 'out-of-season'.

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Impact and timing

We have applied the key outcomes from the ESTEMPLE work to guide our thinking on material impacts (both positive and negative) of the changes discussed to the three elements of the 'Service Profit Chain': Employees, Clients and Members (owners).

Employees

As businesses get more complex, technical expertise and ability to make quick and sound judgement calls in claims, underwriting, product and pricing will be needed.

The major area for employees to navigate and perform in will be adoption of new technology and data to grow business performance. Artificial Intelligence/Intelligent Assistance are prime areas that insurers are now investing in, mainly to improve efficiencies and lower costs.

However, the way the new technology is being implemented will not be consistent. Several organisations have an expressed delivery of reducing employee numbers as a primary way to reduce 'overheads'. Others are seeking to maximise existing people performance at more accurate and higher productivity levels.

Partnership skills will be critical for the employee of the future. Particularly to develop and implement technology, sourcing of data and product bundling with consumer brands.

Skills in managing regulatory frameworks and developing transparent and trusted business models, will also be critical to success.

Clients

A major theme running through changes for clients is their increasing sophistication and use of technology. This will be in business through the use of robots, autonomous vehicles, vertical integration and development of niche brands. Personal impacts will also be through more data generated on personal wellbeing, genetic traits and their ethical consumer behaviours. Along with these factors, clients will also face more regulation, particularly around environmental impacts. All of which will require more advice and services.

Clients will also have different ways to buy their insurance. Larger clients will be able to create captive insurance programmes. The 'best' clients will be targeted for better cover at lower cost and consumers will be able to buy more insurance with products for their car, house, boat, 'smart gadgets' or tractor.

Members

For shareholders/members a focus on navigating regulation and technology will be critical. The advancement of technology and access to data will create tension with regulators. For example, if they perceive an unfair advantage for insurers by having more ability to exclude consumers. Walking the fine line will be critical for competitiveness and client relationships.

Technology implementation projects will be significant, with legacy systems soaking up resources while new models are developed and potentially disrupting the existing insurers. It is highly likely that mergers and acquisitions will occur as larger insurers seek innovators to 'bolt on' new business models. The other type of acquisitions will be the 'laggards' that were to slow to change or failed in implementing systems and technology.

A key risk will be the impact of a major catastrophe event in New Zealand or a significant shift in reinsurance appetite. Scarcity of capital and ability to provide cover to the market and ensure on-going profitability, will be tested by a major incident.

For rural organisations, GIAs on biosecurity are options for expanding services and potentially products to respond to wider market risks.

Three horizons view

To help us understand what will happen and when, we have made an assessment of what is likely to emerge and develop towards widespread adoption. We have taken a conservative view of the short-term impacts and a more aggressive view of 7-year+ horizons. This is based on a historical view of change. In the short term, very little looks to have changed, but over a 10-year period the market has transformed. Examples include the wool industry's slow decline, Tesla being formed in 2003 (15 years ago) but growth only recently and the rise of ethics driving policy and expectations.

The unknowns are shocks to the systems that speed change, specifically natural disasters and financial market shifts. There are also opportunities for new business models to quickly bypass current players' rules, such as product bundling between insurers and consumer brands.

The speed of adoption of technology is also very difficult to accurately assess. For example, autonomous vehicles could reach a tipping point of capability and adoption where growth builds exponentially and very quickly replaces the traditional car market.

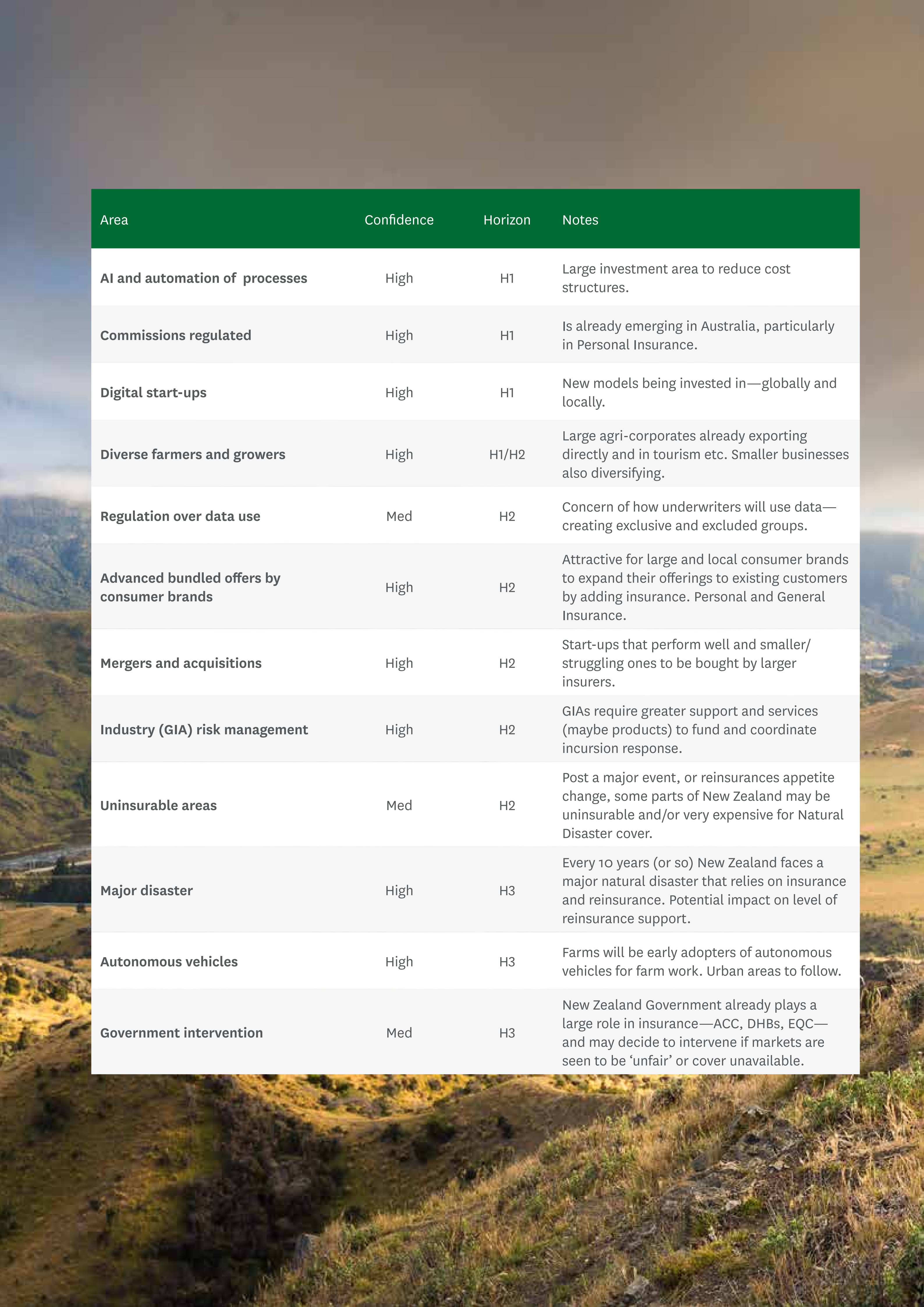
Our assessment of the key impact areas is informed by a number of core beliefs.

1. More **data on risk** will be available. How underwriters use it will be a key difference.
2. Surviving insurers will have a **deep understanding of clients** and provide customised offers.
3. Regulators want **capital held in New Zealand**, meaning insurance is only offered by 'local' insurers.
4. New Zealand Insurance market is **one major** (global or local) **event away** from big price adjustments.
5. Ethics of 'big' insurers using **data against customers** to be a tension for the regulator.
6. **Legacy systems** are a key barrier for change and potential edge for a disruptor.

HORIZONS OF INSURANCE: KEY IMPACT AREAS ON THE SERVICE PROFIT CHAIN AND RURAL COMMUNITIES

	EMPLOYEES	MEMBERS	CLIENTS
3 YEARS	Large automation investment More data on risks available for underwriters	Digital start-ups Commission disclosure	More robots and tech tools to insure More export brands Agri-tourism Cyber security
3–7 YEARS	Oversight of underwriters' use of clients' personal data Tech integrated info services Rights to decline claims redefined	Merger and acquisition activity (business models and scale) Regulation reviews ramp up rules on data use GIAs create insurance schemes	Advanced bundled product offers Ag Tech IP Targeted offers for the 'best' risks Uninsurable areas/risks
7 YEARS +	Complex businesses to advise Full AI functions drive underwriting and claims Employee capability focused on leveraging data and technology to grow	Laggard insurers 'fall away' Major event and reinsurance scarce Rural retain online and dispatch hubs New insurance model ushered in by global brands Build consents driven by availability of insurance	Autonomous vehicles mainstream Government intervention to expand EQC so all have access to cover Captive insurance markets Expansion of insurables business risks

STRONG AND PROSPEROUS RURAL COMMUNITIES



Area	Confidence	Horizon	Notes
AI and automation of processes	High	H1	Large investment area to reduce cost structures.
Commissions regulated	High	H1	Is already emerging in Australia, particularly in Personal Insurance.
Digital start-ups	High	H1	New models being invested in—globally and locally.
Diverse farmers and growers	High	H1/H2	Large agri-corporates already exporting directly and in tourism etc. Smaller businesses also diversifying.
Regulation over data use	Med	H2	Concern of how underwriters will use data—creating exclusive and excluded groups.
Advanced bundled offers by consumer brands	High	H2	Attractive for large and local consumer brands to expand their offerings to existing customers by adding insurance. Personal and General Insurance.
Mergers and acquisitions	High	H2	Start-ups that perform well and smaller/struggling ones to be bought by larger insurers.
Industry (GIA) risk management	High	H2	GIAs require greater support and services (maybe products) to fund and coordinate incursion response.
Uninsurable areas	Med	H2	Post a major event, or reinsurances appetite change, some parts of New Zealand may be uninsurable and/or very expensive for Natural Disaster cover.
Major disaster	High	H3	Every 10 years (or so) New Zealand faces a major natural disaster that relies on insurance and reinsurance. Potential impact on level of reinsurance support.
Autonomous vehicles	High	H3	Farms will be early adopters of autonomous vehicles for farm work. Urban areas to follow.
Government intervention	Med	H3	New Zealand Government already plays a large role in insurance—ACC, DHBs, EQC—and may decide to intervene if markets are seen to be ‘unfair’ or cover unavailable.

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Risks and uncertainty

Key barriers to a positive future do exist, these are highlighted below.

- A **significant change in reinsurance support** could result if New Zealand suffers another major insurable event. This could have a major impact on insurers' risk appetite and ability to provide comprehensive support—especially for material damage risks.
- **Poor change management** particularly in implementing new technology into existing businesses. Organisations that fail to adapt will quickly find themselves at a competitive disadvantage and at risk of rapidly losing market share. Slow change management may also be a factor if new business models take hold quickly and out-pace existing insurers.
- The accelerating pace of technology progress has seen **regulation struggling to keep up** with the pace of change. This could lead to international organisations obtaining a competitive advantage, while being able to circumvent the rules and regulations that apply to other insurers.

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Author details

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Pete is a passionate supporter of the Mutual model and how FMG is striving to help grow strong and prosperous rural communities. The Future of Insurance Report is important to Pete—alongside a companion report on the Future of Farming and Growing. Both contribute to understanding the challenges and opportunities that are coming and support decision making to ensure on-going sustainability—both for FMG and rural New Zealand.

Pete joined FMG in 2010 and currently has responsibility for Client Propositions and Communications. Previously, Pete oversaw the Marketing, Projects and Improvement teams at FMG and was Product Owner for the implementation of the Guidewire Insurance Suite. Prior to joining FMG, Pete completed a PhD in Operations Research at Massey University and has worked in a number of technology-based analysis, management and consulting roles across various industries in New Zealand and the United Kingdom. Pete can be contacted by email at pete.frizzell@fmg.co.nz

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June is FMG's Manager Products where she leads a dedicated team who always have an eye on future needs.

Prior to this, June has worked in various technology roles within FMG and other insurance organisations. With a strong background in leading and delivering technical insurance solutions, June is passionate about making sure FMG's client and employee needs are met.

Arriving in New Zealand from Ireland in 2001, June has spent most of her career working in the finance industry, but continues to be drawn back to the insurance sector. Working on projects such as the Future of Insurance research, continues to pique her interest in this dynamic, ever changing industry and the value it brings to everyone in New Zealand. June can be contacted by email at june.mcclintock@fmg.co.nz

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Jonathan is Head of Underwriting at FMG, having previously held the position of Manager for Commercial Underwriting up until February 2018.

Jonathan joined FMG in 2014 following a stint in corporate insurance broking. Prior industry experience includes various underwriting roles with intermediated insurers spanning back to 2004. Jonathan is a self-confessed 'insurance tragic' and is passionate about the industry and the simple concepts of trust and delivering on our client promise.

The Mutual's values align well with both his own and the committed team of head office underwriters he leads. These values are put to constant use in underpinning the decision-making process to achieve solutions for our sales teams and our clients. Jonathan also holds a keen interest in InsureTech developments and is an advocate for using technology to enable and enhance our relationship-based model. Jonathan can be contacted by email at jonathan.cleland@fmg.co.nz

Mike Lange

Mike Lange is an experienced agribusiness leader, with a background in leading strategy, innovation and financial product developments for large global and national agribusiness brands.

Mike is passionate about creating stronger relationships between farmers and agribusinesses—particularly businesses that have a clear purpose and strategies to succeed through supporting and growing the communities they work in.

Mike has recently been appointed Chief Executive for VetNZ, a growing veterinarian business with clinics in Southland, Otago, Westland and the Waikato and is focused on ensuring that being rural and far away doesn't compromise the quality of veterinary services to its clients.

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