

# Exploring Digital Convergence

## Issues for Policy and Legislation



# Contents

Contents.....	2
Foreword.....	3
1: Introduction .....	4
2: Convergence in the TIME sectors .....	7
Personal communication: services, devices and networks .....	8
Multimedia communication: content creation and consumption .....	10
The effect on market competition.....	11
3: Regulation and policy in an era of convergence.....	12
Implications for policy.....	14
Jurisdictional issues.....	14
4: A system wide response .....	15
Investment in fast connectivity networks.....	16
Cyber security .....	17
Convergence and content consultation.....	17
Spectrum management .....	18
Review of the framework for telecommunications.....	19
GST and cross border services and intangibles.....	20
Study of the creative sector use of the copyright and designs regimes.....	20
Data Futures Partnership.....	21
5: Conclusion.....	22
6: Submissions process .....	23
Sending your submission .....	23
Publication of submissions.....	23

## Foreword

The ever expanding digital world is impacting almost every aspect of our lives.

Growing numbers of digital communications platforms like social media, blogs and websites support fast and easy access to content and services. We've come to rely on them for business, government, education, health and other social services.

New opportunities and challenges have arisen as the telecommunications and information technology sectors have converged with the broadcasting and media sectors and as content has become decoupled from delivery networks.

We shouldn't underestimate the scale of the impact convergence is having in New Zealand.

At the highest level, convergence provides businesses with the opportunity to expand into new services and products and new markets.

In New Zealand we are seeing increasing competition across the sectors, and companies expanding into new areas. The increasingly global marketplace is seeing international barriers crumble as both providers and consumers find new and innovative ways of doing business.

Local providers are now able to compete on a global scale, while domestic consumers can access new international, as well as domestic, content and services. These opportunities can bring huge benefits in terms of more choice and lower prices for New Zealanders.

As choice and availability increase, our expectations are changing rapidly too. Data and applications are now mission-critical for businesses. Consumers expect reliable, always-on internet connections, and want to be able to access content at anytime, anywhere in the country - at home, at work, and on the move.

The impact of these changes on our legislation needs to be considered. In many cases legislation was written before the impacts of convergence were present in New Zealand.

To ensure New Zealanders are fully able to realise the potential benefits and opportunities presented by convergence, we need to make sure our legislation is fit for purpose and able to withstand the rapid changes we are seeing across the sectors.

This paper explores the context in which our legislation is now operating. Recognising this context the Government will be releasing several consultation documents considering specific issues.

This work is part of the Government's Business Growth Agenda work on Building Innovation, ensuring that we proactively review market regulations to ensure they support the development of new, innovative products and services.

Your views are an important part of our work to ensure the overall approach to legislation is consistent and reflects the reality of a converged market.



**Hon Amy Adams**  
Minister for Communications  
Minister of Broadcasting

# 1: Introduction

## What is the objective of this paper?

The aim of this paper is to spark public debate on the implications of convergence in the telecommunications, information technology, media and entertainment (TIME) sectors, and the Government's proposed response.



**CONVERGENCE** is a term used to describe the common delivery of previously discrete service functions such as broadcasting and telecommunications over shared digital infrastructure, and the consequent reduction of the boundaries between previously separate industries

Continuous improvement in digitisation, data processing and compression technology, combined with the proliferation of broadband internet, mean it is now possible to offer traditional communications and broadcasting services in new ways, for example radio and television delivered over the internet.

In reality convergence means different things to businesses, consumers and policy-makers. For communications businesses, convergence affects investment patterns and alters competition and market structures. The fact that different products and services are no longer bound to specific networks increases the accessibility of those products and services. However, it also increases the substitutability of products that were previously part of distinct industries (for example, the use of third-party software to deliver video calls over smart televisions). This exposes businesses to greater competitive pressure and adds new complexity to the decisions companies make on technology investments or in the pursuit of product innovation and market diversification.

The relationship between content creation and content distribution, which was previously close, is all but gone. Distribution is no longer a significant barrier for content creators. At the same time, consumers have more options for accessing desired content, thereby reducing the influence of distributors. The evolution of this relationship means that the business models of both content creators and content distributors are changing at pace.

For consumers, convergence means greater choice and lower cost. No longer bound to an individual provider for a specific service, today's consumers can select the devices that best suit their lifestyles and connect them to one or more network providers to access the services and content of their choice. New Zealand consumers can increasingly choose between either subscribing to a triple or quadruple play package (voice, video, data and mobile) from a single provider or mixing and matching service offerings from multiple different sources. Consumers are also increasingly at the centre of content service delivery, controlling not only what they view, but also when, where and how they view it.

For policy-makers and regulators, the emergence of new, converged services challenges existing policy and regulatory regimes. Rapid changes in technology create the risk that New Zealand's regulatory regimes may fall out of tune with changing business models and consumer expectations. It is important for regulators and policy-makers to enact legislation and policies that recognise ongoing convergence in the TIME sectors.

Convergence is also part of a larger wave of disruptive technological change that is significantly altering the way we live and work. Other parts of this wave include:

- **Hyper-connectivity:** Technology is changing the way we use data, allowing each of us to generate and access more data, in more ways, from more places. However, without ongoing investment, the proliferation of connected devices and increased volume of data traffic could see our communications networks become congested. Network operators will face heightened expectations to continue to ensure their networks are resilient, secure and provisioned for bandwidth capacity.
- **Innovation:** Uber, the world’s largest taxi company, owns no vehicles. TradeMe, New Zealand’s largest retailer, holds no inventory. Airbnb, the world’s largest provider of rental accommodation, owns no real estate.<sup>1</sup> The internet is upending industries that had become protected by technological, scale or regulatory barriers. Its ability to connect suppliers of goods and services directly with consumers is providing new ways for companies and consumers to pool information and resources in a new peer-to-peer or sharing economy.
- **Globalisation:** International supply chains and the global reach of the internet are challenging regulation designed for local and national markets, ranging from copyright law and media content classification to tax policy. New social, economic and legal conventions will be needed to address these changes.
- **Creativity:** While online distribution presents some threats to the businesses models of traditional content publishers, it offers great opportunities for content creators. Social media platforms like Facebook and Twitter increase the speed at which ideas flow around the world. This has levelled the playing field between amateur and professional producers in their ability to influence public debate and popular culture, and is fostering a new generation of writers, film-makers, performers, and app developers.
- **Security:** Our reliance on networked technology provides opportunities for those with criminal or malicious intentions. As more public services are delivered online, and the digital interconnection of people – and things – increases, it raises new questions about how we can collectively better manage the security and privacy of our online communications.

Convergence enables, and overlaps with, many of the changes in these areas, increasing the complexity of considering any one issue in isolation.

## The Government’s response

The disruptive influence of digital technology is opening up exciting possibilities in almost every part of the economy. The Government’s long-term vision for the TIME sectors is:

- High-quality, affordable communications services delivered to all New Zealanders, enabling our economy to grow, innovate and compete in a dynamic global environment.
- New Zealanders can access relevant, quality content, legally, safely, and cost-effectively.



<sup>1</sup> Tom Goodwin “The Battle Is For The Customer Interface” Crunch Network 3 March 2015.

To achieve this vision, we must make sure that government is not standing in the way. We need to make sure our regulations and policies are up to date and flexible. We need a comprehensive stock-take across government to ensure we remove any unnecessary roadblocks to innovation in the market. Where there is still a need for regulation, it should be the minimum required to achieve a clear, public purpose.

## How do we get there?

The Government has initiated a cross-government work programme which considers the impact of convergence and its implications for a range of associated issues.

The work programme comprises:

- A review of the regulatory framework for content classification
- A review of the regulatory framework for telecommunications and radio spectrum
- Developing the infrastructure needed to support convergence
- A refresh of the Cyber Security Strategy and Action Plan
- A review of the applicability of GST to cross border services and intangibles
- A study of the creative sector use of the copyright and designs regimes
- The Data Futures Partnership

Additional work may be added to the programme over time.

## What happens next?

This document is intended as a road map to inform public discussion and participation in these work programmes. While these work programmes focus on specific issues, this paper invites submissions on any matters not covered.

To help focus feedback we have developed the following high level questions. These are included here to prompt your response as you read the document as a whole:

- Do you agree with the way this paper defines convergence? Why/why not?
- Do New Zealand's current regulations and policies need to change to account for convergence? Why/why not?
- Do you agree with the proposed convergence work programme?
- Should the Government be doing anything else to address convergence?
- What barriers are you aware of that prevent you from benefiting from, or responding to, convergence?

Details of the submission process are set out in Section 6 of this paper.

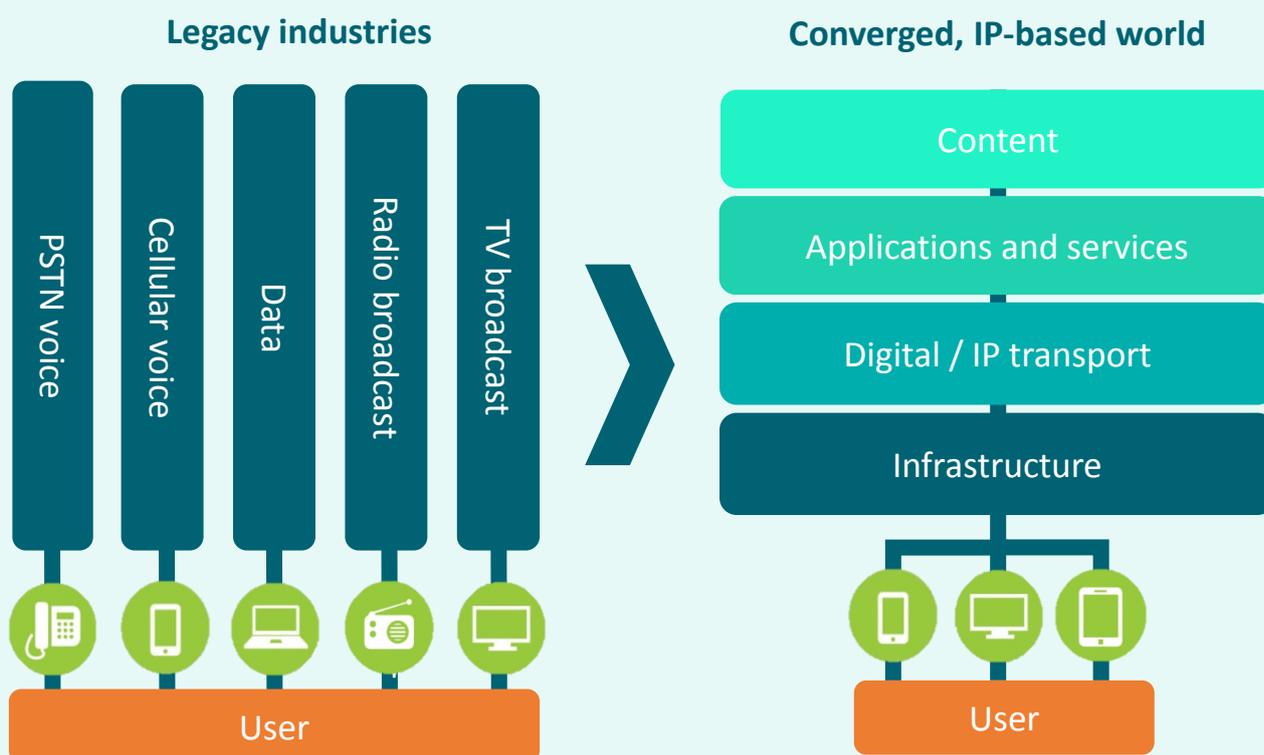
## 2: Convergence in the TIME sectors

For much of the time since their invention, telephone calls, emails, and television and radio broadcasts were each delivered over different networks, and were only accessible through purpose-specific electronic devices. They also inspired industries based on various business models (subscription, advertising, public funding, private funding). In addition, each industry was often accountable to different policy and regulatory processes and institutions.

However, these modes of communication are now no longer separate. Advances in technology mean that physical network infrastructure initially deployed for a single purpose is now used for multiple purposes. The effect of this is that previously separate voice, video and data services are now all able to take place or 'converge' on a single technology network or platform.

Various telecommunications, cable, wireless, satellite and electricity providers are offering these platforms in competition with each other around the world, fundamentally altering the communications landscape. For example, traditional telecom voice providers are now providing video content and high speed data, and traditional broadcasting providers are technically able to provide voice services and high speed data. Figure 1 demonstrates the changes resulting from convergence.

Figure 1: Changes resulting from convergence



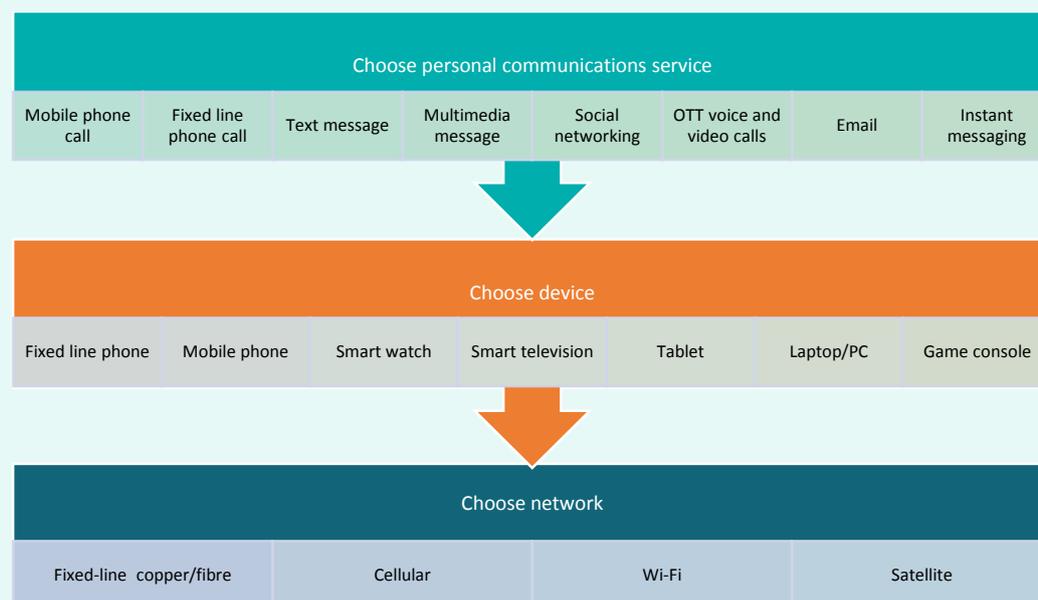
## Personal communication: services, devices and networks

The growing diversity of communications services, devices and networks means that consumers now have an increasing number of pathways to communicate with each other. Significant developments in recent years include:

- **Services:** Network-based application services such as Skype, WhatsApp, Viber, and Facebook Messenger are becoming increasingly popular both locally and globally. Such applications deliver voice calls, video calls, and instant messages ‘over the top’ (OTT) of data networks. In addition, an increasing number of New Zealand-based phone and internet companies have begun offering new fixed-line telephone services, which allow customers to make calls over the internet rather than a traditional copper phone line. The cost of using such internet-based communications services is often much less than the cost of traditional communication services.
- **Networks:** In addition to traditional fixed and cellular voice networks, Wi-Fi data networks are becoming increasingly ubiquitous. Having access to multiple alternative networks improves the overall robustness and redundancy of personal communications.
- **Devices:** The number of communication devices each of us owns is increasing rapidly. The *Cisco Visual Networking Index 2015* has estimated that by 2019 there will be more than 35 million internet enabled devices in New Zealand. That equates to more than seven devices per person, up from just fewer than four per person in 2014.

Each new service, device or network differs in terms of cost; quality (best efforts or minimum guaranteed quality of service); relationship between user and the service provider (formal or casual); longevity of use (ongoing or one-off); and regulatory treatment (regulated or unregulated). This diversity of communications options and their associated characteristics means that consumers are increasingly able to select the most appropriate device, service and network to suit their immediate location and situation. For example, at home, a person may elect to make an OTT video call to relatives using a laptop and fibre broadband in the privacy of their home, but use a private messaging application on a smartphone to communicate with friends over public Wi-Fi at a noisy cafe.

Figure 2: Consumer personal communication options



As a result of this explosion in consumer choice, previously common forms of communication, including fixed-line phone calls and SMS messaging, are now in decline.

Figure 3: Fixed, mobile and total calling minutes (Commerce Commission Annual Monitoring Report 2014)

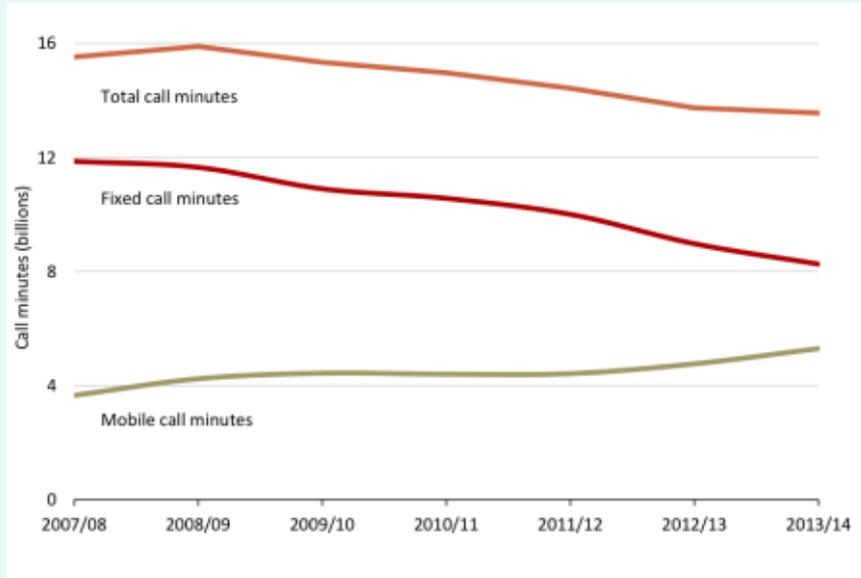
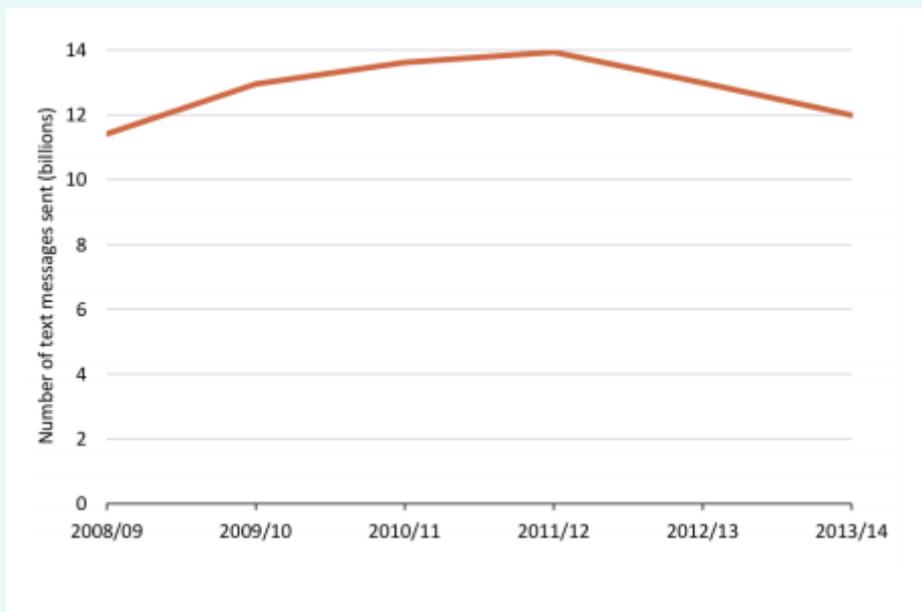


Figure 4: Text volumes (Commerce Commission Annual Monitoring Report 2014)



## Multimedia communication: content creation and consumption

As with voice communication, New Zealanders now have more options to access content in more ways, across a variety of networks, platforms, and devices. As such, creators of media and entertainment content, including film, radio, television, print and gaming, are using this opportunity to expand their reach.

For example, in audio-visual content, by early 2015 New Zealand had a total of five video-on-demand services competing for market share, compared with one in 2012:

- Quickflix – March 2012
- Lightbox – August 2014
- Video Ezy On Demand – September 2014
- Neon – February 2015
- Netflix – March 2015

In 2014, 20 per cent of New Zealanders watching television content watched it both online and via a TV set, while four per cent watched it online only<sup>2</sup>. TVNZ's OnDemand service reached 69 million streams in 2014-15 (up 27 per cent on the previous year) - more than 1.3 million streams per week.

The increase in content offered online is also occurring in other media forms, as providers take the opportunities presented to communicate information through different forms and across different platforms. Radio New Zealand's website audience grew by 57 per cent in 2014, and since 2008 the number of New Zealanders accessing news online has grown from 25 per cent to 54 per cent<sup>3</sup>.

These changes are altering the relationship between content creators and content distributors. Content creators have more options to distribute their content and can now access audiences directly through online platforms. Distribution is therefore less of a barrier to entry for content creators. Traditional distributors have less influence on audience consumption habits, with consumers increasingly switching between distribution methods to access the content they want, when they want it.

The way content is created is also changing. For example, audio-visual content is no longer produced only by large professional media companies: the popularity of platforms such as YouTube, Periscope and Meerkat means individuals can create and share content easily and quickly. YouTube alone has 300 hours of content uploaded every minute, with some New Zealand YouTube channels reaching over 1 million subscribers.

These changes are disrupting the market and providing opportunities. For example, there is an emerging trend of distributors commissioning their own content to meet consumer demands, and we are seeing more content creators and distributors entering the market.

Given broadcasting regulation was designed at a time when content production and distribution was limited to fewer players and different market structures than today, it is timely to review whether and how content should be regulated.

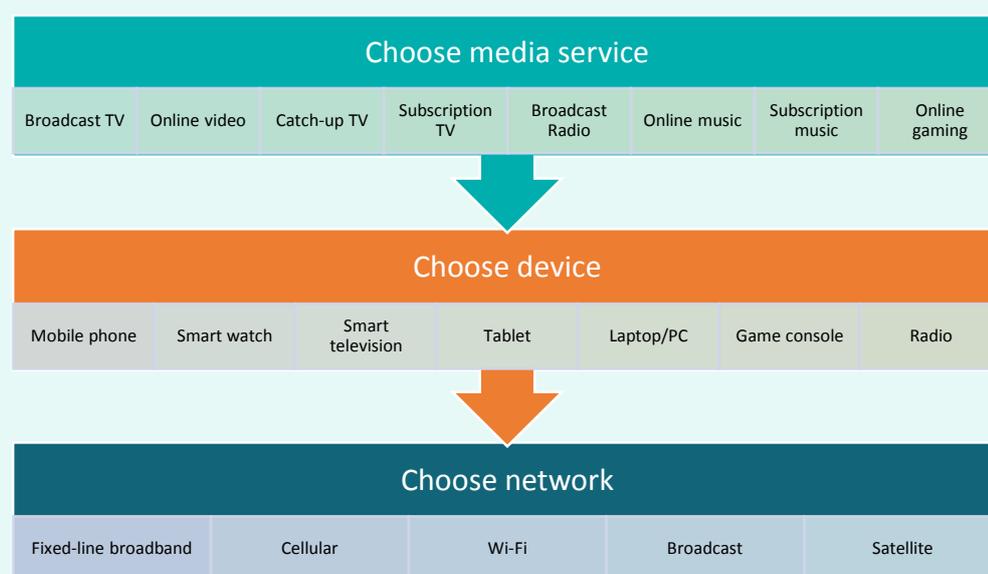
Jurisdictional boundaries are also becoming increasingly unimportant to consumers. The increased accessibility created by digital technologies means data is potentially available anywhere, and both providers and consumers can target and access a much larger global marketplace.

---

<sup>2</sup> Nielsen Media Trends 2015

<sup>3</sup> Nielsen Media Trends 2015

Figure 5: Consumer multimedia options



## The effect on market competition

Convergence is also changing competition dynamics within the TIME sectors. New Zealand-based TIME companies now face enhanced competition from two directions:

- **Competition between firms in previously non-rival TIME sectors:** Convergence has enabled existing media and telecommunications companies to diversify their product offerings into each other's markets, spurring new competition.
- **Competition between traditional TIME firms and new internet-based TIME firms:** Operating a traditional broadcasting and telecommunications business requires significant investment in network infrastructure. The cost of this investment must later be recouped from customers. By contrast, providers of application-based services can leverage off existing infrastructure. In addition, sector innovation is occurring at the level of the individual application or device, rather than the network infrastructure level. As a result, consumers' relationships are shifting away from traditional, network-based service providers to software and device companies such as Google and Apple.

The impact of convergence related competition is further amplified by increasing competition between local and international TIME firms. While the small size of New Zealand's domestic market and its relative geographic isolation once offered some protection to local firms, globalisation and the falling cost of international bandwidth are making it increasingly attractive for international communications services firms overseas to launch localised product offerings in New Zealand. Even where foreign companies elect not to launch localised products, New Zealand consumers are becoming increasingly active in seeking ways to access foreign content and services available in other jurisdictions.

These new sources of competition have sometimes had the effect of supporting regulatory outcomes. For example, promoting competition for the provision of voice telephony services was a traditional objective for telecommunications regulation. Now, competition has flourished since technology advanced to the point where Voice over Internet Protocol (VoIP) can deliver high-quality voice services. Similarly, the rapid entry of telecommunications and internet businesses into the distribution market for online video content has addressed many of the previous concerns resulting from the lack of competition in the domestic broadcast sector.

### 3: Regulation and policy in an era of convergence

The Government has a role to ensure that our legislation and policy frameworks remain optimised to support innovation and competition, while protecting the rights of New Zealanders. A priority under the Government’s Business Growth Agenda chapter on Building Innovation is to ensure market regulation supports and does not hinder the development of new and innovative products and services. While the separate TIME markets are rapidly moving toward a single broad communications market, New Zealand’s regulatory and policy systems remain segmented according to the historical separation between the telecommunications and broadcasting sectors.

#### Implications for regulation

The key challenge convergence presents for policy-makers and regulators is how to ensure our laws remain coherent, fair, and effective despite often dramatic changes in the nature of regulated markets, industries and technologies.

Since the earliest days of the telephone and broadcasting industries it was assumed that these services were natural monopolies and entirely separate industries. As such, the regulatory regimes that developed around them were based on specific technology platforms, with different rules for each distinctly perceived industry. This approach was widely followed around the world.

In addition, in New Zealand each of our communications statutes has a different underlying regulatory purpose. For example:

- **economic regulation**, such as the Telecommunications Act 2001, is intended to promote competition policy goals;
- **cultural and social regulation**, such as the Broadcasting Act 1989 and the Films, Videos, and Publications Classification Act 1993, is intended to protect and promote community values during content creation and distribution; and
- **enabling regulation**, such as the Radiocommunications Act 1989, is intended to provide a neutral framework to facilitate the efficient allocation and use of spectrum resources.

Figure 6: Regulatory systems for communications in New Zealand

<p>The trade practices provisions of the <i>Commerce Act 1986</i>, the <i>Fair Trading Act 1986</i>, and the <i>Consumer Guarantees Act 1993</i> apply across the communications sector.</p>		
<p><b>Telecommunications Act 2001</b></p> <p>Promotes economic competition in markets for telecommunications services. Establishes an access and pricing regime, and regulates other aspects of telecommunications markets</p>	<p><b>Radiocommunications Act 1989</b></p> <p>Provides a framework for the creation of rights to use radio spectrum, a key input in the provision of a range of communications services</p>	<p><b>Broadcasting Act 1989</b></p> <p>Regulates linear broadcasting services (e.g. the establishment of the Broadcasting Standards Authority)</p> <p><b>Films, Videos, and Publications Classification Act 1993</b></p> <p>Regulates non-broadcast multimedia content</p>

The current framework of regulation has worked well for many years. However, the fast-changing environment brought about by convergence makes it appropriate to conduct a health-check of our regulation, to ensure that it remains coherent, and that the current delineations remain appropriate, and to guard against a range of possible risks, including:

- **Misalignment of policy and legislative constructs with market, behavioural and technological realities.** For example, over time the importance of competition considerations relating to the allocation of radio spectrum has increased, along with the increased importance of mobile telecommunications. Neither the Radiocommunications Act nor the Telecommunications Act specifically address this. Instead, competition matters have been addressed through sale conditions such as spectrum caps and consideration under the Commerce Act by the Commerce Commission, generating considerable uncertainty during initial allocation processes.
- **Gaps in the existing framework's coverage of new forms of content, applications, and services.** For example, restrictions on advertising timing and placement, stipulated in the Broadcasting Act, affect television and radio and do not apply to online platforms, even if they are carrying the same content at the same time.
- **Reduction of boundaries between historically distinct services, devices and industry sectors, leading to inconsistent treatment of like content, services or devices.** For example, the Telecommunications Act is the only form of sector-specific economic regulation for the sector, and broadcasting networks are specifically excluded from that Act – an increasingly arbitrary distinction, given the convergence of broadcasting and telecommunications infrastructure.
- **Institutional ambiguity as a consequence of sectoral convergence such that several regulators - or no regulators - hold the mandate to address pressing market or consumer concerns.** For example, with the introduction of new transmission methods which make a wider range of content more easily accessible such as internet-based video-on-demand services, providers of ostensibly similar content or services over different platforms face uncertainty about their regulatory obligations under the Broadcasting and Films, Videos, and Publications Classification Acts.

Our regulatory system should reflect reality, 'treat likes alike' across the converged sector, and be flexible and durable enough to cope with future change. Policy needs to enable innovation and growth, while ensuring a fair and even playing field for competition. It should enable change in the market without steering it. Policy and legislation should, for the most part, be technology and business model neutral to allow innovation and change within the market.

Possible regulatory responses may include:

- Updating regulation to reflect the realities of the new market environment.
- Reducing regulation or identifying alternative means of achieving policy objectives.
- Repealing irrelevant or ineffective regulation.

## Implications for policy

In addition to regulation, government policy can have a significant influence on the development of our communications and media markets in other ways. Most notably, to achieve a public good, government may elect to act as an investor or direct participant in these markets. Examples of such policies already cited include:

- The Government's investment in telecommunications infrastructure, such as the Ultra-Fast Broadband (UFB) and Rural Broadband Initiative (RBI), which is improving access to high-quality communications services across New Zealand.
- The Government's investment in high-quality content through funding agencies such as NZ On Air, and initiatives such as the New Zealand Screen Production Grant.

It is important that policy-makers remain alert to the impacts of convergence in the formulation and review of such policies, and seek to ensure that, wherever possible, future policies are designed to be technology neutral, and do not unduly favour any given service, platform, or content format over any other. For example, with the increase in online accessibility the mixture of tools used by government to support content may have to change as convergence throws up new possibilities and challenges. The range of tools includes legislation, public ownership, contestable funding, and licence conditions, among other potential measures.

## Jurisdictional issues

With geographic barriers becoming less relevant, we now expect to be able to access content and services from around the world instantly, and there are unprecedented opportunities for New Zealand businesses to expand beyond our borders.

Meanwhile, the entry of international players into the New Zealand market online means we need to consider how our regulatory systems should apply to these businesses. The treatment of national and international players within our market, and how such players are treated internationally, may give rise to cross-border jurisdictional issues.

For example, the arrival in the New Zealand market of on-demand services that are based overseas raises the question of how their content is to be brought within New Zealand's classifications and standards, whether voluntarily or through legislation. Similarly, such overseas-based services, like their counterparts in other areas of commerce, are not currently subject to GST, resulting in potentially unfair competition between providers in the same sector. Tension is also rising between the traditional, geographically-bound commercial and contractual frameworks for the copyright and licensing of digital content, and the idea of the internet as a single, free, open, global marketplace.

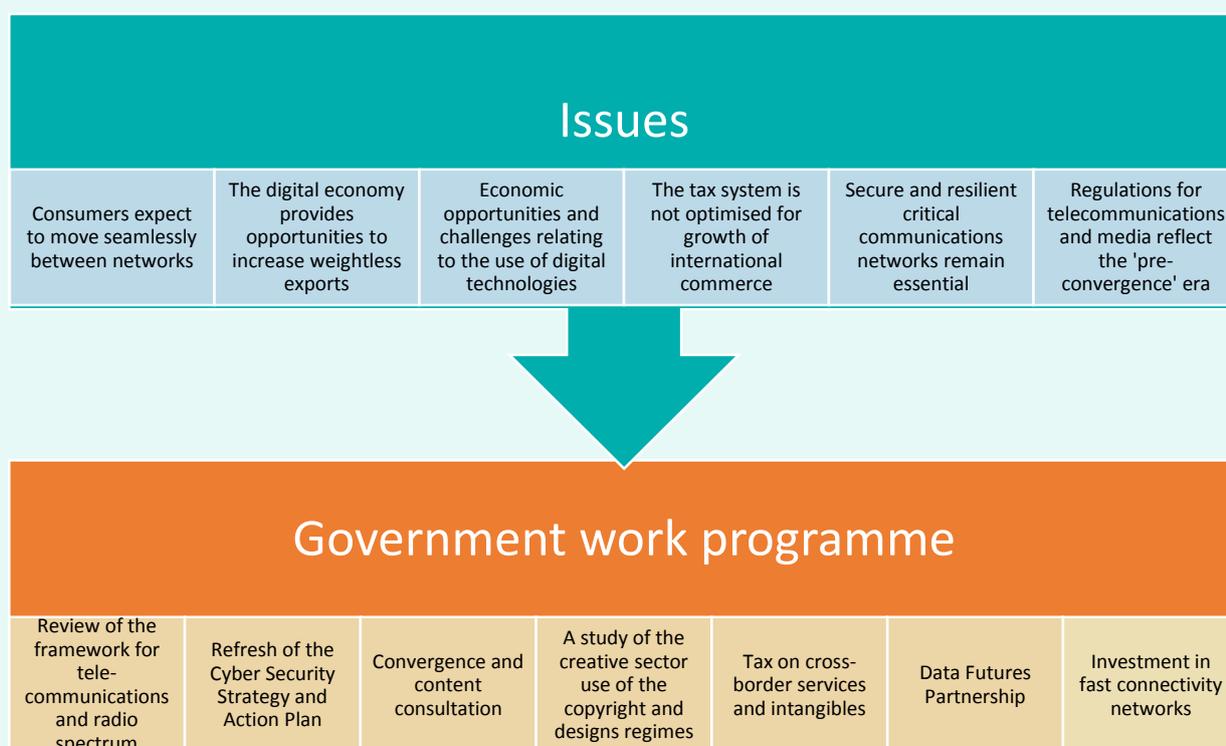
Another emerging jurisdictional issue is the concept of *data sovereignty*, in other words that digital information is subject to the laws and regulations of the country in which it is stored. This is gaining significance as more businesses and consumers use 'cloud services' and other services provided by off-shore providers. Such services may reduce the cost of data storage and communications, benefitting small businesses in particular. This may raise issues relating to the security and privacy of New Zealand data stored off-shore. The difficulty of accessing data stored off-shore may also provide challenges for law enforcement and national security. It will be important to get the balance right between trusted international information technology, privacy, security and inter-jurisdictional issues.

## 4: A system wide response

The issues the Government is looking at touch many areas, ranging from content standards to taxation to the development of creative industries. Responsibility for these areas does not sit with any single portfolio or agency, and no one government portfolio has the levers for coordinating a complete response. Ensuring our regulatory system remains healthy and responsive to convergence will require a thorough understanding of the overall system and collaboration across government and industry.

Therefore, as indicated earlier, a comprehensive cross-government work programme is under way to deal with cross-cutting issues, delivered by various departments. This section provides a road map to inform public participation in these work programmes by outlining the areas involved and work already under way or planned. Some of these work programmes form part of the Business Growth Agenda, alongside wider government initiatives. More information can be found at <http://www.mbie.govt.nz/what-we-do/business-growth-agenda>.

Figure 7: Government work programme addressing convergence issues



## Investment in fast connectivity networks

The adoption of mobile smart-devices has meant that consumers want and expect to move seamlessly between networks: from a home Wi-Fi connection over the UFB network, to mobile data on the go, using free Wi-Fi networks where available. High speed, reliable and ubiquitous connectivity is essential for the way New Zealanders work, interact and do business.

Communications networks underpin the services now demanded by consumers, and in 2013-14 total reported investment in the telecommunications industry reached \$1.69 billion. It is increasingly important for applications that involve video and advanced services that improve productivity in areas such as health, education or agriculture to have a reliable and quality broadband service throughout New Zealand.

Noting the increasing importance of communications infrastructure to New Zealand's future, the Government has consistently prioritised the upgrade of New Zealand's communications network infrastructure through its Ultra-Fast Broadband (UFB) and Rural Broadband Initiative (RBI) programmes. Good progress is being made:

- UFB is now available in 33 New Zealand towns and cities, the build is over half complete, and in June 2015 over 100,000 end users had connected to the network. Connections continue to be added at around 5000-6,000 every month.
- RBI has meant that 269,000 rural homes and businesses now have access to fixed wireless broadband, and 93,000 rural homes have access to fixed line broadband.

At 31 December 2014, New Zealand ranked 15 out of 34 OECD countries in broadband penetration – above the average, and ahead of the US, ranked 16, and Australia, ranked 21<sup>4</sup>. This is a change from 22<sup>nd</sup> place in June 2004. Fibre connections are growing particularly fast, tripling in the year to June 2014, and putting New Zealand first for fibre growth in the OECD.

Investment is set to continue, with Government providing up to \$210 million in additional funding to extend the UFB to 80 per cent of New Zealanders in additional towns and urban areas, and \$100 million to extend the RBI to areas outside of the UFB footprint. A new Mobile Black Spot Fund of \$50 million will expand mobile coverage to rural and remote areas. Local authorities are invited to nominate areas to receive new coverage under the selection process for these programmes and to inform the Government of how broadband or mobile investment supports their regional economic development priorities.

In 2012 the Government spent \$157 million clearing the 700 MHz radio spectrum band to allow the development of new 4G mobile networks. These new networks are now being rolled out across the country, with expected economic benefits for New Zealand of up to \$2.4 billion over the next twenty years.

---

<sup>4</sup> <http://www.oecd.org/sti/broadband/oecdbroadbandportal.htm>

## Cyber security

Connectivity, data and network-based applications are an integral part of New Zealanders' everyday lives and critical for businesses and the workings of government. Our reliance on this technology brings with it inevitable vulnerabilities – the risk of malfunction and the increasing risk of malicious actions. Ensuring our critical communications networks are secure and resilient is essential for economic growth, international competitiveness and national security.

The Government is in the process of refreshing its existing Cyber Security Strategy (the current Strategy is from 2011). The draft Strategy takes a multi-layered approach to cyber security, involving multiple agencies, private sector inputs, and tools. The Strategy envisions a secure New Zealand as one where New Zealanders and their businesses prosper, the harm from cyber threats and cybercrime is reduced, significant national information infrastructures are defended, and New Zealand is respected internationally as a secure place to do business and store data. The Strategy emphasises the importance of partnership with the private sector and that cybersecurity is everyone's responsibility. The draft Strategy includes an Action Plan that pulls together a range of new and existing initiatives to improve New Zealand's cyber security. The Strategy refresh is a multi-agency project, led by the National Cyber Policy Office within the Department of the Prime Minister and Cabinet.

## Convergence and content consultation



Social and cultural policy objectives for the multimedia and entertainment industries are currently governed under two separate statutes:

- The Broadcasting Act 1989 establishes the broadcasting standards regime and the Broadcasting Standards Authority, and the funding agencies NZ On Air and Te Māngai Pāho. It stipulates restrictions on broadcast advertising times and regulates the broadcasting of electoral programmes.
- The Films, Videos, and Publications Classification Act 1993 stipulates the classification requirements which must be met for publications supplied in New Zealand.

Neither the standards provisions of the Broadcasting Act nor the labelling provisions of the Classification Act directly address content delivered through online transmission methods. There are, therefore, areas where distinctions between different platforms are present in legislation, and where questions arise:

- **Content Classification and Standards:** the differing standards and classification regimes for conventional, linear broadcasting, online content, and films and DVDs; the question of what sort of regime should apply to the new on-demand services
- **Election programmes:** inconsistencies between the provisions in the Broadcasting Act and Electoral Act; the question of whether a media neutral regime can or should be established in the Broadcasting Act (as it is in the Electoral Act 1993)
- **Advertising restrictions:** the differing treatment of television and radio, in which restrictions apply to some public holidays and Sunday mornings (in the case of television), compared to other media; the question of how to maintain places in the television schedules for minority interest content if the restrictions are removed or modified
- **Policy tools for supporting local content:** among possible ways of supporting desired local content, New Zealand focuses on contestable funding, owning and mandating public broadcasters, and providing spectrum and funding for regional and community broadcasting. In the light of convergence it may be timely to take a fresh look at the range of tools available to government.

The Government has initiated a convergence and content consultation, including a discussion paper, “Content Regulation in a Converged World”, to consider these issues. This review focuses on existing rules contained in the Broadcasting Act and the Films, Videos, and Publications Classification Act and considers whether the rules apply consistently across all platforms, highlights instances where this is not the case and poses the question of whether in each case distinctions between platforms remain appropriate. The objective of the review is to ensure legislation is consistent and platform neutral, in order to provide an even and fair playing field for sector participants, as well as clarity for consumers. As in other areas of policy, it is important that legislation does not steer the market, but incentivises innovation and competition.

In relation to election programmes, a standard process for reviewing electoral legislation is through the routine Justice and Electoral Select Committee inquiry following each general election. The 2014 election inquiry has received several submissions regarding Part 6 of the Broadcasting Act. In reviewing the convergence aspects of Part 6 of the Broadcasting Act the Government will also take into account any recommendations the inquiry may make on these provisions.

The review of content regulation is being led by the Ministry for Culture and Heritage in conjunction with the Department for Internal Affairs and the Ministry of Justice.

The consultation period closes on 16 October 2015 and submissions can be sent to [convergence@mch.govt.nz](mailto:convergence@mch.govt.nz) or in writing to:

Media Policy Team  
Ministry for Culture and Heritage  
PO Box 5364  
Wellington 6145

## Spectrum management



Radio spectrum is both a scarce resource and a key input in the provision of a range of communications services, including mobile voice and data networks, broadcast television and radio services. New Zealand’s spectrum management regime is set out under the Radiocommunications Act 1989. A review of the spectrum management commenced in July 2014 and is currently ongoing.

The current spectrum management regime was designed to be technology and service neutral: licences and management rights issued under the regime are not restricted to a given technology or platform. As such, the Government considers that the regime itself currently presents no barriers to convergence.

Notwithstanding the compatibility of the existing spectrum management framework with convergence, the Government has identified two spectrum-related issues relating to competition regulation that do have convergence implications. The Government considers these issues can be best addressed as part of the ongoing review of the regulatory framework for telecommunications, discussed below.

## Review of the framework for telecommunications

The establishment and operation of telecommunications networks within New Zealand is regulated under the Telecommunications Act 2001. The main purpose of the Act is to promote economic competition for the benefit of the end user.

The Government commenced a review of the Telecommunications Act 2001 in August 2013. This review is ongoing. The overriding objective of the review is to ensure that the Act continues to serve to promote competition, innovation and investment for the benefit of end users, in a way that is sufficiently flexible to cater to the ever changing digital environment.

The review will consider six broad issues with relevance to convergence:

- New Zealand's communications regulatory systems may need to change to address the reality of a converged sector, and to regulate consistently across networks and content;
- our regulatory systems may be unable to cope with the pace of change in technology and markets (for example, in addressing new issues like net neutrality);
- jurisdictional issues are arising due to the global nature of the internet, resulting in potentially inconsistent treatment of the same services;
- communications regulation was designed for a different era and may not be fit for today's competitive environment;
- significant uncertainty has been generated from the operation of the telecommunications regulatory regime in recent years, and needs to be minimised; and
- we need to maintain and build on competition in mobile markets.

With respect to convergence, the Government has identified several gaps and inconsistencies. These are:

- **The exclusion of broadcasting networks from the scope of the Act:** The Act regulates all electronic communications network infrastructure and transmission services in New Zealand, except those relating to the broadcasting sector. This exclusion appears increasingly arbitrary, given the convergence of broadcasting and telecommunications more broadly.
- **Uncertainty relating to spectrum caps:** Currently, the Government may set spectrum caps prior to a spectrum auction. This means that where a bidder wins spectrum that acquisition is subject to the Commerce Act and may require approval by the Commerce Commission. That approval may not be forthcoming, frustrating the intent of the Government's auction. At present this process is not managed by legislation. The details of the new system are yet to be developed.
- **A need for more robust undertakings relating to use of radio spectrum:** The Government believes there is a need for clearer and more robust tools to manage ongoing compliance with radio spectrum acquisition conditions by purchasers. At present this is not managed by legislation.

This review is being led by the Ministry of Business, Innovation and Employment. Consultation on the review is to be carried out shortly. Submissions can be sent to [telcoreview@mbie.govt.nz](mailto:telcoreview@mbie.govt.nz) or writing to:

Telecommunications Review Team  
Communications Policy  
Ministry of Business, Innovation & Employment  
PO Box 1473  
Wellington 6140

## GST: Cross-border services, intangibles and goods

The collection of GST is provided for under the Goods and Services Tax Act 1985. When GST was introduced in 1986, New Zealand consumers purchased few services from offshore and online digital products were not yet available. The growth of e-commerce means the volume of services and intangibles on which GST is not collected is becoming increasingly significant. This raises the question of whether the existing tax rules will remain suitable and sustainable in the future. In particular, concerns have been raised about the impact that the uneven GST treatment may have on the competitiveness of domestic providers and on future tax revenues.

The Inland Revenue Department is consulting on the possible application of GST to cross-border supplies of services and intangibles. The consultation document requests feedback on various proposals. This consultation period closes on 25 September 2015 and submissions can be sent to [policy.webmaster@ird.govt.nz](mailto:policy.webmaster@ird.govt.nz) or writing to:

GST: Cross-border services and intangibles  
C/- Deputy Commissioner Policy and Strategy  
Inland Revenue Department  
PO Box 2198  
Wellington 6140

## Study of the creative sector use of the copyright and designs regimes

Connectedness to markets and weightless trade are particularly important for New Zealand given our physical location. The digital economy provides new opportunities for New Zealand firms to increase their weightless exports, and our intellectual property settings need to facilitate this.

The convergence of communications technologies is changing how the creative sector disseminates its products to consumers in New Zealand and abroad. Together with technological developments facilitating the creation, dissemination and consumption of creative works, this has lowered the entry barriers for people trying to provide their creative works to end users, enlarging the category of people who can effectively participate as creators or distributors. It has also posed new challenges for people seeking to protect the works they disseminate digitally. These opportunities and challenges are changing how the sector operates – including how creative works are created, disseminated, used, shared, protected and commercialised, as well as the contractual rules that govern their dissemination and use.

The Government accordingly considers it timely to study how copyright and designs are being used in the creative sector. How this use is impacted by convergence and the digital economy will be considered as part of the study. Information from the study would provide an evidence base to inform any future legislative reform.

The Ministry for Business, Innovation and Employment will lead the study, in consultation with the Ministry for Culture and Heritage. The primary focus will be on those creating and commercialising intellectual property. It will aim to produce a narrative about the use of copyright and designs in the creative sector, and the print, film and television, music, software, gaming, and design industries alongside other industries that make up the creative sector.

## Data Futures Partnership

The Data Futures Forum in 2014 highlighted some opportunities and challenges concerning our data future. It saw huge opportunities for the reuse of government data and big data for analytics, and noted that value is increased when we also have inclusion, trust and greater control. Existing legislation and frameworks are being challenged as data collection increases and technology develops, but in the Forum's view legislation needs to be flexible and light-handed to maintain relevance and support innovation.

In February 2015, the Government endorsed the principles of value, inclusion, trust and control as a foundation for data use in New Zealand, and in August 2015 agreed to establish a Data Futures Partnership. The Partnership is a cross-sector group of influential people working together to drive behavioural change across the data-use ecosystem and promote high-trust and high-value data use for all New Zealanders. Development of the Partnership proposal was led by the Treasury and Statistics New Zealand. Work is now turning to establishment and appointment of the Partnership. Members of the Partnership will be largely non-government and able to provide a useful outside-in perspective on relevant government programmes. The Partnership Working Group will report to the lead Ministers of Finance, Justice, and Statistics.

## 5: Conclusion

This paper has aimed to set the scene for public involvement in the Government's review of its interventions in the TIME sectors, to ensure that policies and regulations are fit for purpose in this new age of convergence.

This paper outlines the comprehensive stock-take across government that has been initiated to ensure we remove any unnecessary barriers to innovation in the market. It provides a road map to inform public participation in these work programmes by outlining the areas involved and work already underway or planned.

This paper acknowledges that convergence means different things to businesses, consumers, and policy-makers, and therefore invites submissions on any matters not covered by the current work programme. As outlined in the introduction, the following high level questions have been designed to prompt your response:

1. Do you agree with the way this paper defines convergence? Why/why not?
2. Do New Zealand's current regulations and policies need to change to account for convergence? Why/why not?
3. Do you agree with the proposed convergence work programme?
4. Should the Government be doing anything else to address convergence?
5. What barriers are you aware of that prevent you from benefiting from, or responding to, convergence?

The submission process is set out in the next section. Responses that offer detailed comments on distinct sub-parts of the convergence work programme will be shared with the most relevant government agencies for full consideration.

## 6: Submissions process

You are invited to make a written submission on the issues raised in this document. The closing date for submissions is 5pm, 16 October 2015.

Specific questions are listed at the end of relevant sections, and the full set of questions is listed below. The Government welcomes comment on some or all of the questions raised, as well as broader comments on the issues.

Where possible, please provide specific examples and evidence to support your views. If these examples are commercially sensitive, we encourage you to provide two versions of your submission: a full version and a publishable version (see below).

### Sending your submission

Comments should be submitted in writing, no later than 5pm on 16 October 2015, as follows:

**Email (preferred):**

convergence@mch.govt.nz

**Post:**

Media Policy Team, Ministry for Culture and Heritage, PO Box 5364, Wellington 6145, New Zealand

**Delivery address:**

Reception, Level 4, ASB House, 101 The Terrace, Wellington 6011

If you post your submission, please also send it electronically if possible (as a PDF or Microsoft Word document).

### Publication of submissions

Except for material that may be defamatory, the Ministry for Culture and Heritage will post all written submissions online. The Ministry will consider you to have consented to publication by making a submission, unless you clearly specify otherwise in your submission. If sensitive material in your submission cannot be published, please provide two versions of your submission – a full version (with that material clearly identified) and a publishable version with redactions.

Submissions are also subject to the Official Information Act 1982 (OIA). If you have any objection to the release of any information in your submission, please set this out clearly with your submission. In particular, identify which part(s) you consider should be withheld, and explain the reason(s) why you consider we should withhold the information by reference to section 9 of the OIA. The Ministry will take such reasons into account when responding to requests under the OIA.

The Privacy Act 1993 establishes certain principles with respect to the collection, use and disclosure by various agencies, including the Ministry, of information relating to individuals and access by individuals to information relating to them, held by such agencies. Any personal information you supply to the Ministry in the course of making a submission will be used by the Ministry only in conjunction with consideration of matters covered by this document. Please clearly indicate in your submission if you do not wish your name to be included in any summary the Ministry may prepare for public release on submissions received.