**MINISTRY OF BUSINESS,
INNOVATION & EMPLOYMENT**
HIKINA WHAKATUTUKI

Communications and Digital Economy – Status Report
Minister of Broadcasting, Communications and Digital Media

Week Ending: 22 June 2018

IN CONFIDENCE

Date _____ / _____ / _____

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Seen by Minister Clare Curran
**Minister of Broadcasting, Communications
and Digital Media**

Contact details for urgent enquiries:	
Contact	**Mobile**
Carolyn Tremain	S9(2)(a)
Chris Bunny	S9(2)(a)
Brad Ward	S9(2)(a)
James Hartley (Acting GM)	S9(2)(a)
Elisabeth Numan	S9(2)(a)
Kim Connolly-Stone	S9(2)(a)
Osmond Borthwick	S9(2)(a)
Jane Tier	S9(2)(a)
Len Starling	S9(2)(a)

1.   Issues requiring your direction

No issues requiring your direction.

2.   Work Programme Updates

2.1.   <u>Emergency Caller Location Information</u>   *Ben Quay*

A significant upgrade to the ECLI service was successfully completed on 20 June 2018 between 0000 and 0600. Led by MBIE, with technical resources from Datacom and emergency services, the upgrade enhances resilience of the life-saving service by increasing availability to 99.99% (or just 34 minutes down-time per annum). This technically complex project was completed on time and to budget.

2.2.   <u>Numbers of 5G base stations</u>   *Len Starling*

S9(2)(ba)(i) & (ii)

You have asked for further information about the number of additional base stations that will be required for 5G.

The number of additional base stations will depend on several factors:

- The amount of base station sharing between companies
- The amount of spectrum available to the major operators. (Reserving spectrum for other uses will increase the number of base stations required by the national networks.)
- The frequencies used for 5G. (3.5Ghz will be the first frequency deployed but the network operators have other bands that will be able to be re-purposed in future and some of these will provide better rural and in-door coverage.)
- The types of 5G services that are provided. (More base stations will be required if very high data rates are needed in a confined area. Low data rate applications such as IoT won't need as many base stations.)
- The rate of uptake of the new technology by consumers.

Unfortunately there is no simple answer to any of these questions at this time. For example, there is still active debate in the technical community about the coverage that will be achieved by the first frequencies that will be deployed. Some people claim that a base station every 200 metres will be necessary. However, others say that these claims are overstated. For example, Wonil Roh (Head of Technology Strategy at Samsung Networks) was recently quoted as saying that "an urban outdoor area [can be covered with 5G with] a similar number of base stations to what we have for [4G]".

One key point is that these base stations will not necessarily look like traditional cell-phone towers. Many will be flat panels attached to the side, or on top, of buildings. If painted the appropriate colour these are unlikely to be intrusive and may not be noticeable. (By way of comparison, there are a very large number of WiFi base stations in most cities but they attract no comment.)

In the face of this uncertainty our advice is that there is unlikely to be a rapid expansion in the numbers of macro sites in the first five years. There may be more base stations in the medium to long-term but most of the initial changes will be flat panels or changes to existing macro sites.

S9(2)(ba)(i) & (ii)

3. Digital Economy: Project Status Update

Project	Updates	Next major milestones
Digital Economy and Digital Inclusion Advisory Group (*joint project with DIA*)	A successful Zoom call was held on 19 June, with sub-groups providing updates. Actions included: • Work on future states to be locked down by 29 June. • Disruption/adaption group to test its future state with the wider network, using Polis. • Group to provide early advice on procurement issues and what could be done. • Chair to collate Group views on the R&D tax credit proposal. • Digital inclusion sub-group to provide advice on what it thinks is an achievable goal for 2020. • Chew session with Minister Nash and the business uptake sub-group to be explored. • MBIE to progress the community manager idea.	All day working session in July (date to be determined following doodle poll). This will, among other things, synthesise the ideas of the five working groups.
CTO (*joint project with DIA*)	You agreed to a longlist of applicants earlier in the week. Officials have now contacted both successful and unsuccessful candidates. This will inform them of the decisions to date, and, in the case of the successful candidates, next steps, including the video interview and written questions. A sub-Group of the Advisory Group, led by Frances Valintine, will review these applications and produce a shortlist of around 3-5 people for your consideration.	S9(2)(f)(iv)
Productivity Commission inquiry into technological change, disruption and the future of work	In May this year, Cabinet agreed to ask the Productivity Commission to undertake an inquiry into technological change, disruption and the future of work. Treasury has been developing the Terms of Reference (ToR) for the inquiry S9(2)(f)(i) S9(2)(f)(i)	Advisory Group on Digital Economy and Digital Inclusion providing comments on the TOR. S9(2)(f)(i)

Project	Updates	Next major milestones
	S9(2)(f)(i) S9(2)(f)(i) We expect that the Commission would work closely with MBIE as it develops the inquiry. We will keep you informed of developments.	
	S9(2)(f)(i)	
Response to Artificial Intelligence report	As requested, we recently provided a briefing on the recommendations and next steps, and look forward to discussing this with you. Discussions with the AI forum suggest that their working groups would be a useful way for government agencies and industry to work together on implementing the recommendations. MBIE has recently joined the AI Forum Executive Council. This will provide a useful opportunity for us to keep you informed of developments. Engagement with key agencies on report recommendations is progressing.	Meeting with representatives of the AI Forum in July. Advice to you on the more detailed implementation plan in July. Broader ministerial agreement to implementation plan in August. S9(2)(f)(iv)
Business uptake of ICT pilot programmes (tourism, arable farming, and construction)	We are finalising our 'package' of resources with PWC and Digital Journey to support 'trusted intermediaries' (such as business advisers and economic development agencies) to support greater digital capability of their SME clients and members. We will 'dry run' the above package at a tourism event in early July. We will then host a number of sessions in late July to provide intermediaries with	Chew session with you on 9 July (briefing to be provided the week prior). Joint session with Minister Nash and business uptake sub-group (TBD). Finalised programme content will be available to economic development agencies in July.

Project	Updates	Next major milestones
	package of resources and let them run with it. We will seek their feedback on if the package provides the information that advisers and SMEs need. We are supporting the SME Advisory Group in doing a high level scan of the current services offered to small businesses by government that aim to increase digital capability.	We will then provide advice to you and Minister Nash on the evaluation of the pilots and next steps for business uptake of ICT. We will engage with the Advisory Group before providing advice.
Gaming sector	We recently signed the partnership contract with NZTech for the Interactive Media research report. We have provided your office with a briefing that has more information about this report, next steps, and ways you can be involved. The briefing notes how you can contribute to the more detailed terms of reference, and also asked you to indicate if you would like to meet the team producing the report.	Update on research expected in August. Report published in December.
GovTech *(joint project with DIA)*	Following discussion with you at our officials meeting on 13 June, DIA and MBIE have updated the paper with more of a focus on innovation activity in government and on procurement and to enable you to discuss with Minister Parker.	Updated paper by 22 June.
Augmented and Virtual Reality report	You asked for an update on the second AR/VR report. In 2017, MBIE contributed funding for a two-part economic impact study on the augmented and virtual reality sector in New Zealand, produced by the NZ Virtual and Augmented Reality Association New Zealand (NZVRARA) and match funded by industry. MBIE contributed $50,000 to this two-part report. The first part of the report, released in September 2017, is titled *Virtual Gets Real: The Explosion of Cross Reality in New Zealand.* It covered the opportunities for New Zealand including the impact of AR/VR on other sectors of our economy, and spotlights on Auckland, Wellington and Christchurch. It also covered the research and development spill over benefits from growing the AR/VR sector. We have provided your office with a hard copy of this report. The second part of the report will be titled *Going Next Level,* and is expected to be released in early July. This part will include further economic analysis about the sector, and explore other vertical markets where AR/VR can have an impact, including entertainment, training and education, tourism, and enterprise VR (such as hi-tech manufacturing). It will also explore how New Zealand can better connect with the global AR/VR sector, and what links already exist. You were set to speak at the	Launch of second part of AR/VR report, *Going Next Level,* in early July. We will provide advice on the recommendations in the report, and whether the AR/VR sub-sector could play a key part in your goal to grow the tech sector to become the second biggest contributor to the economy by 2025.

Project	Updates	Next major milestones
	launch of this report, but have had to cancel due to other ministerial commitments. Following the launch of the second report, we will have a good understanding of the opportunities around AR/VR in New Zealand, and a full set of recommendations from the NZARVRA on how industry and government can work together to grow the sector. We will provide you with advice on these recommendations.	
The Internet of Things (IoT) Response to Accelerating a Connected New Zealand	We will shortly provide a briefing on the IoT Alliance report Accelerating a Connected New Zealand published June 2017. The report was largely an awareness raising exercise for this technology. However, it also contains several high level recommendations that could be addressed in the new digital strategy. We have flagged this report in briefings on the digital economy work programme. However with the timing of the CTO appointment we think it would be useful to discuss this with you now.	Briefing on IoT report and follow up discussion.
Return to IT programme	S9(2) S9(2)(ba) S9(2)(ba) The ToolKit has been sent out to the employers aligned to the scheme for their feedback. To date two employers have responded with feedback.	Publication of a "how to" guide in July showing employers how to run return to work programmes for women who have taken a career break from the digital technology workforce.
Investor's Guide to the New Zealand Tech Sector	The TIN Network has approached MBIE about funding a further iteration of the Investors Guide to the New Zealand Tech Sector. We will be discussing that further with the TIN Network in due course.	Make updated version of the Investor Guide available widely. Consider the proposal from TIN 100 to fund an extended version of the Investor's Guide in 2019. You have asked for a fuller briefing on the Investors Guide, and this is being prepared.
Digital Inclusion social and economic baseline research	A workshop was hosted on 20 June to get feedback on the methodology to be used in developing an outcomes framework and baseline for digital inclusion. Members of the Digital Inclusion Advisory Sub Group attended. We have connected this piece of work with the measurement work that the Digital Inclusion Advisory Sub Group is keen to progress in their optimal future thinking. This project is also connected to the wider work of the Statistics NZ Domain Plan.	Research underway as of 1 June. Draft framework expected early July. You have asked for fuller briefing on the digital inclusion research, and this is being prepared.
Techweek (19 – 27 May)	Techweek 2018 was a huge success, with over 500 events taking place around the country and lots of media attention.	We will provide you with a list of the ideas generated at the Co-Create a Digital Strategy events.

Project	Updates	Next major milestones
	The MBIE run (DIA supported) workshops, *Co-create the Aotearoa NZ Digital Strategy*, in Auckland, Wellington and Christchurch, were very well received with participants wanting to stay involved.	Further events to be run to cater for demand from participants. This will include the TUANZ FLINT (youth) network.
	The workshops were an opportunity for attendees to contribute ideas for the development of the new Digital Strategy. This ideas bank will be a resource for the DEDIMAG and the CTO. A number of DEDIMAG members attended the sessions.	Negotiate funding contract for Techweek 2019 (we will engage with you on this first).
	You participated in a number of successful Techweek events: ShadowTech, Createch, and the High Tech Awards.	Briefing on the outcomes of Techweek 2019 (currently being prepared).

4. Enhancing Rural Connectivity: Project Status Update

Enhancing Rural Connectivity		
• The project comprises the set of work streams addressing rural connectivity (both fixed broadband and mobile). • This status update reports areas of progress, identifies new issues that are relevant to the scope of the work streams or that have a significant impact on their progress.		
Work stream	**Progress update**	**Comment**
RBI2/MBSF Expansion Policy ($105 million) (Infrastructure Portfolio)	You and Minister Jones met earlier this week with CIP and MBIE to be briefed on the outcomes of the expansion bids received and the level of coverage achievable. S9(2)(f)(iv) Decisions, in principle, were also made on other small policy matters. CIP was given its mandate to begin negotiations with respondents, S9(2)(b)(ii)	CIP and MBIE are working on providing you and Minister Jones further advice (including maps) on some additional coverage opportunities as discussed in the 19 June meeting. S9(2)(f)(iv)
Marae connectivity (Infrastructure Portfolio/ Broadcasting, Communications and Digital Media Portfolio)	S9(2)(b)(ii) S9(2)(f)(iv)	S9(2)(b)(ii)

Responding to Community Concerns (Communications and Digital Media Portfolio)		
Tararua: Seeking improved broadband and greater mobile coverage	You met with Connect Tararua, Ron Mark MP and the Mayor of Tararua on 24 May to discuss progress on the project. S9(2)(b)(ii) On Monday 11 June, MBIE and CIP met with Connect Tararua and the Mayor of Tararua to discuss expected coverage by the RBI2 and MBSF programmes in Tararua. CIP will provide Connect Tararua with more detailed maps to show coverage in the district.	Connect Tararua will be giving a 5 minute presentation 'Vignette 1 – Regional Connectivity' at the TUANZ Rural Connectivity Symposium on Tuesday 26 June at 1.30pm. We understand that Mel Poulton and Tim Poulton will be presenting, and Tracey Collis, Mayor of Tararua, will also be attending.

5. Sector News/Other issues you should know about this week

5.1. The 2017 Information and Communication Technology Supply Survey

Overview

The Information and Communication Technology Supply Survey measures the sale of goods and services from businesses associated with ICT industries. The survey began in 2006 and ran every second year to 2014 and has been run again in 2017. There is no commitment to run this survey again.

S9(2)(ba)(i)

The survey is included in the [stock take for the Digital Domain Plan](#) which was published on 28 March 2018.

S9(2)(ba)(i)

Results for the [2017 ICT Supply Survey](#) were published on 18 June 2018. The key findings of the 2017 survey are:

- Sales of ICT software and services were worth $7.4 billion in 2017, 17 percent more than in 2014.
- Sales of hosting and IT infrastructure provisioning services rose 84 percent to $1.6 billion. This value is 28 percent of the total sales of IT services, up from 18 percent in 2014. The increase reflects the trend towards providing cloud-hosting services.
- 25 percent of the value of all sales of ICT services and software came from published software.
- Sales of IT services increased 16 percent to $5.6 billion.
- Exports of IT services were 11 percent of the total sales of ICT software and services in 2017, up from 9 percent in 2014.

5.2. Australia releases paper on the upcoming International Telecommunications Union Plenipotentiary Conference

The Australian Department of Communications and the Arts has released an information paper in preparation for the International Telecommunications Union's (ITU) forthcoming Plenipotentiary Conference (PP-18) to be held from 29 October to 16 November. The paper seeks feedback on the policy issues described in the paper from Australian stakeholders.

The paper identifies the most significant issues that the Australian government anticipates will emerge at PP-18. We have summarized some of the issues below.

International internet-related public policy issues

The Australian government advocates for the multi-stakeholder approach to internet governance that is "inclusive, consensus-based, transparent and accountable". It argues the ITU "should remain within its current mandate of capacity building measures, developing technical standards, and discussion on internet-related public policy issues". It opposes giving a power to make recommendations (rather than just an ability to consider) to the ITU Council working group on internet-related public policy issues. It states that this would be a "step towards the ITU becoming a global Internet regulator".

Cyber security

The paper notes that cyber security is an increasing and contested topic of discussion at the ITU. Under current resolutions, the ITU should focus its resources and programs on areas of cyber security that fall within its mandate and expertise – such as capacity building and technical assistance. In contrast, issues such as legal and policy principles on national defense, content and cybercrime are outside the ITU's mandate. Australia is resisting attempts to "expand the ITU's mandate into areas in which it does not have the expertise or resources, or which duplicate the work of other bodies".

Review of the International Telecommunications Regulations (ITRs)

The ITRs are treaty-level documents intended to facilitate international interconnection and interoperability of information and communication services, as well as ensuring their efficiency and widespread public usefulness and availability.

A conference to review the ITRs was held in 2012. There was some agreement that revisions to the 1988 ITRs, but there was a failure to reach consensus. This led to two versions of the ITRs – one from 1988 and a new version in 2012. Australia did not sign up to the new version (nor did New Zealand).

An Expert Group has been reviewing the ITRs. Australia has argued that the ITRs should remain focused on the interconnection of international telecommunication networks and should not encompass matters relating to the internet. It also suggests that a revision of the ITRs would draw resources away from other priority areas. It anticipates that the revision of the ITRs will be a contentious issue at PP-18, with a likely push to extend the work of the Expert Group, and potentially to set up a new conference to revise the ITRs.

New Zealand is generally aligned with Australia on this issue. MBIE proposes to send representatives to PP-18.

5.3. **Enable Special Offer**

Enable, who provides UFB fibre services in the Christchurch area, has written to RSPs inviting them to contact their Account Managers about a wholesale incentive targeting Vodafone's HFC coverage area. The brief note to RSPs states that the promotion will not [be] available to "RSPs that sell alternate competing technologies inside the target promotional area during the promotional period". The promotion is scheduled to commence on 1 July 2018.

Vodafone has responded to the note by writing to Enable to say that the offer breaches regulatory obligations (under its Deed of Undertaking with the Crown) and competition law. The letter demands that Enable immediately withdraw its promotional offer.

On the face of it, the Enable promotion appears to be inconsistent with its non-discrimination obligations under the Deed. However, we have not sought formal advice on this point.

Vodafone has drawn Enable's note to the attention of the Commerce Commission. The Commission enforces the Deed and the Commerce Act. We will stay in touch with the Commission to keep track of their views on whether Enable has breached any legal obligations.

S9(2)(ba)(ii)

5.4. Chorus and Network for Learning to expand Wi-Fi trials

Chorus and Network for Learning (N4L) announced this week they are expanding a trial that uses Chorus network infrastructure to bring free internet into the homes of students.

The latest pilot involves Chorus and N4L working with Rata Street School in Lower Hutt, the Te Awakairangi Access Trust (Taka Trust), Hutt City Council and the Ministry of Education. It will aim to connect another 150 homes in the Lower Hutt area directly to fibre and place a Wi-Fi point of presence in the home to see how that improves the service.

For the Rata Street School trial, students will be connected using a specially-configured Wi-Fi gateway plugged into a free port on a UFB Optical Network Terminal (ONT) device in the home. This will provide a direct connection to the N4L school network and is separate from any broadband service that might already be in the home.

Homes that do not currently have UFB, or no broadband, will have UFB installed free of charge under this project. Students in trial areas will have access to the same safe (filtered), uncapped internet experience they get at school using a login for N4L's managed network, providing access to their online learning while at home.
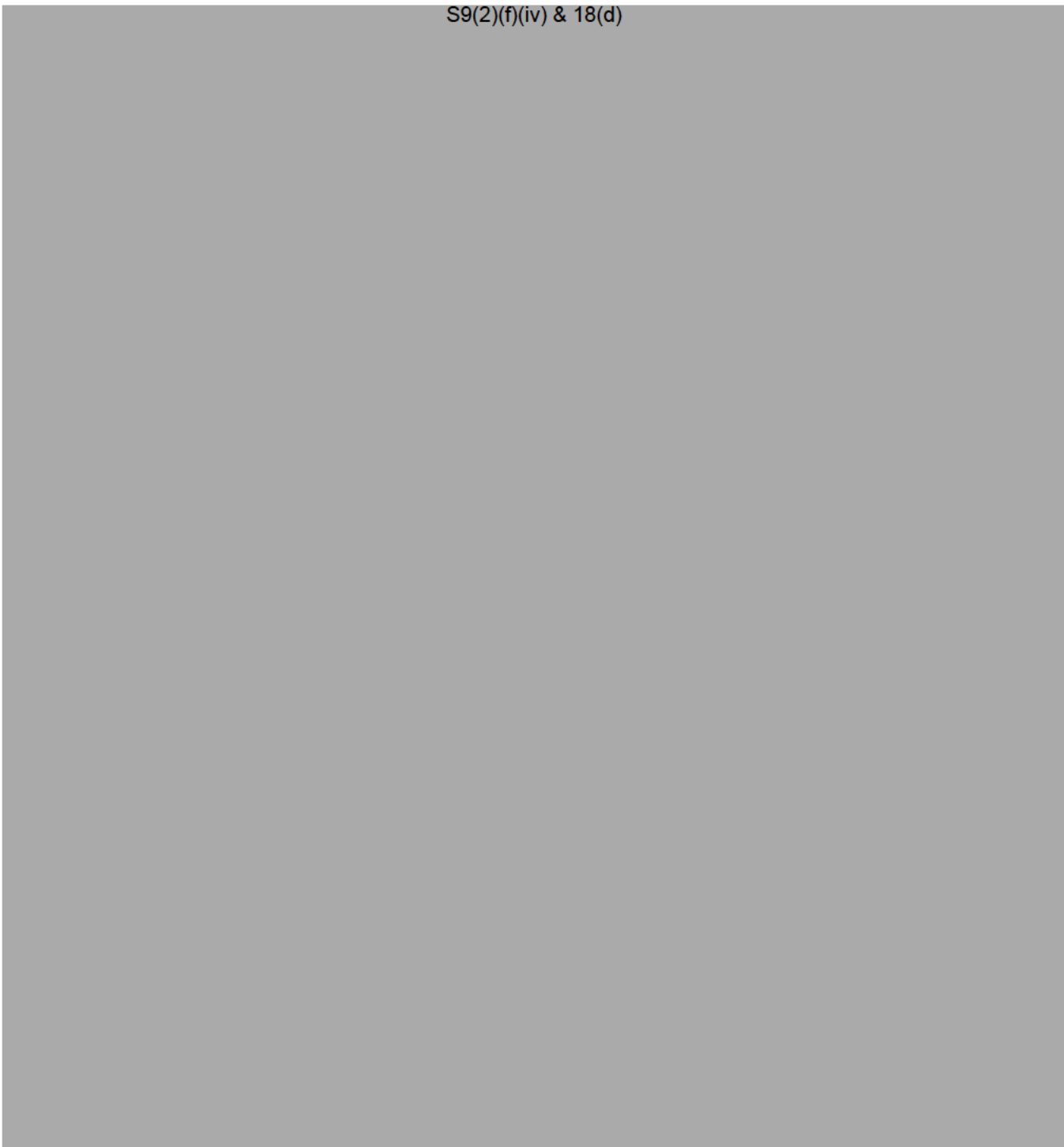
6. Briefings (received and upcoming)

6.1 Briefings sent to the Minister's office

Sent to Minister's Office	Title of Paper	Comment or Purpose	Minister's Sign-off	Key Officials
28/05/2018	Ratification of Final Acts of WRC15 and ITUPP 2018; 3414 17-18	Briefing	8/06/2018	John Stewart
28/05/2018	Notes for Opening address at NZART's annual conference; 3514 17-18	Event Brief	28/05/2018	Sophia Enright
28/05/2018	Submissions Summary Report - Public Consultation on Telecommunications Relay Services; 3558 17-18	Briefing	28/05/2018	Andrew Burns
29/05/2018	Developing indicators for the Digital Economy; 2267 17-18	To seek feedback on the economic activities you wish to monitor in order to measure the contribution of the digital economy to New Zealand's economic growth.	04/06/2018	Kim Connolly-Stone
6/06/2018	Newlands Intermediate School and Code Camp - Gamefroot coding camp 11 June; 3586 17-18	Meeting note.	11/06/2018	Stevie Jepson
14/06/2018	Digi-X Panel Discussion; 3714 17-18	Event note.	21/06/2018	Katherine Silvester
15/06/2018	Dunedin UFB completion event; 3721 17-18	Event briefing	21/06/2018	Moshika Chandra
15/06/2018	Enhancing Rural Connectivity – progressing RBI2/MBSF expansion; 3551 17-18	Briefing	19/06/2018	Janelle Whittleston
19/06/2018	Interactive Media research report; 3688 17-18	Provide a briefing on the gaming sector study.	30/06/2018	Stevie Jepson
19/06/2018	2018 TUANZ Rural Connectivity Symposium; 3810 17-18	Brief and speech notes.	25/06/2018	Moshika Chandra

Sent to Minister's Office	Title of Paper	Comment or Purpose	Minister's Sign-off	Key Officials
20/06/2018	Variation to the Telecommunications Services Obligations (TSO) Deed for Telecommunications Relay Services (TRS); 3852 17-18	Short briefing	29/06/2018	Andrew Burns
22/06/2018	Proposal to amend certain directory assistance obligations; 3479 17-18	Briefing on the proposal from Yellow Pages Group Limited to amend certain directory assistance obligations.	13/07//2018	Filomena Antunes

6.2   Briefings due to the Minister's office

S9(2)(f)(iv) & 18(d)

7. Cabinet Papers (received and upcoming)

Committee and Date	Date Sent	Title of Paper	Comment or Purpose	Key Officials
RECEIVED				
DEV	25/05/2018	Ratification of Final Acts of WRC15 and ITUPP 2018	To seek approval to submit these papers to DEV	John Stewart
UPCOMING				
Committee and Date	**Date Due**	**Title of Paper**	**Comment or Purpose**	**Key Officials**

S9(2)(f)(iv) & 18(d)

Secondary advice provided on cabinet papers (i.e. telco aspect)
MBIE has recently been consulted on the proposed 2018/19 Transport Rules Program by the Ministry of Transport. There are a number of planned changes to these rules that involve the use of radio spectrum. However, all of the changes are consistent with existing allocations of spectrum so there are no spectrum policy implications.

Other OIAs consulted on

8. Meetings – (scheduled and proposed)

Subject	Meeting date	Confirmed / To be scheduled
MBIE Officials Meeting	Monday 25 June, 10.00am to 10.45am	Confirmed
Ministers Group Meeting on Emergency Services Critical Infrastructure Oversight	Tuesday 26 June, 3.00pm to 3.30pm	Confirmed
Hons Parker and Curran and officials re GovTech including Hon Parkers Eco Dev and Procurement officials	Wednesday 27 June, 8.25am to 8.55am	Confirmed
Meeting with Clive Elliot QC.	Wednesday 27 June, 10.15am to 10.45am	Confirmed
MBIE Officials Meeting	Monday 2 July, 10.00am to 10.45am	Confirmed
Meeting with Stu Christie, Chair AI forum and Ben Reid, Exec Dir of the forum	Tuesday 3 July, 3.15pm to 3.45pm	Confirmed
Meeting with Institute of Directors- Kirsten Patterson, Chief Executive	Wednesday 4 July, 8.30am to 9.00am	Confirmed
Stewart Sherriff 2 Degrees CEO	Wednesday 4 July, 3.30pm to 4.00pm	Confirmed
Spark CEO, Simon Moutter	Thursday 5 July, 9.00am to 9.45am	Confirmed

MBIE Officials Meeting	Monday 9 July, 9.45am to 10.30am	Confirmed
MBIE Officials Meeting	Monday 23 July, 9.00am to 9.45am	Confirmed
Rocket Lab CEO, Peter Beck	Thursday 26 July, 8.30am to 9.15am	Confirmed
MBIE Officials Meeting	Monday 30 July, 9.00am to 9.45am	Confirmed
Rural Women NZ	Tuesday 31 July, 4.00pm to 4.30pm	Confirmed

9. Communications activity (media, speeches, events, etc)

Date	Due to Minister's Office	Topic	Description	Communications approach	Market sensitive	Key contact
TBC	TBC	S9(2)(f)(iv)	S9(2)(f)(iv)	Press release (TBC)	No	Renee Duffell Jane Tier Jo Williams
22 June, 5.00pm to 7.00pm	15 June	Dunedin Chorus Gigatown event	You have agreed to speak at the Dunedin UFB completion event	Speech notes	No	Moshika Chandra
26 June	19 June	2018 TUANZ Rural Connectivity Symposium	You have agreed to speak at the 2018 TUANZ Rural Connectivity Symposium.	Brief and speech notes.	No	Janelle Whittleston

10. OIAs and Ministerials

10.1 OIAs

Reference	Name	Topic	Date of letter	Date due Minister's Office	Status
OIA18-66	S9(2)(a)	Request for documents	19-Apr-18	18-Jun-18	Sent to MO 18-Jun-18
OIA18-86	S9(2)(a)	Request for documents	8- June-18	28-Jun-18	Information being gathered
DOIA1718-1768	S9(2)(a)	All information re decision to cease the Kordia DAB radio trial on 30 June	10-Jun-18	Due to requestor: 6-Jul-18 Notification of decision: to be advised	Information being gathered

10.2 Ministerials

Reference	Name	Topic	Date of letter	Date due Minister's Office	Status
For update please contact Ministerial Services					