DEMAND FOR REGIONAL STUDIOS AND VIRTUAL PRODUCTION FACILITIES IN NEW ZEALAND

A STUDY OF DEMAND FOR SMALL AND MEDIUM SIZED STUDIOS AND VIRTUAL PRODUCTION VOIDS IN REGIONAL AREAS OF NEW ZEALAND.

FELICITY LETCHER FOR NZTE, JUN 2021

CONTENTS

EXECUTIVE SUMMARY

INTRODUCTION

This study expands on the *Olsberg NZ Film Studio* study and focuses **on the demand for small and medium sized** studios and **virtual production** voids (alternatively called volumes or stages[1]) in regional areas of New Zealand.

The proposed audience for this study is investors – including private corporate and individual investors, iwi, regional and local councils who are interested in becoming involved in small and medium sized studio development, particularly outside of Auckland and Wellington.

A survey was conducted as part of the study which included interviewing a range of screen sector practitioners in New Zealand and internationally. This survey, alongside research and data from recent studies from other agencies has been used to draw a picture of demand in regional areas.

Demand is growing for content internationally and within the New Zealand domestic market. This demand has resulted in an increased need for studios for production activities.

The study concludes **that there is demand for regional studios** in certain areas of New Zealand which are already exhibiting key factors required for investment in studios to be successful. These factors include:

- Evidence of activity currently happening in a region on an ongoing basis with a mix of domestic and line production projects.
- Locations that can be easily accessed within an hour of the proposed studio site.
- Regional Government support for studios and the screen sector.
- Creative economy and production companies already operating successfully in the region.
- Crew who are living and available in the region.
- Business supplies and support in both industry specific and general support are available in a region.
- Focus and client base for the studio in a region is built off the factors above and works closely with other studios being developed regionally and in the main centres of Auckland and Wellington to provide a cohesive studio network in New Zealand.

The study found that there is a great interest in filming more regionally and basing productions in regions if studios were available. The regions that exhibited strong response to the above factors and interest from the survey were:

- Bay of Plenty/Rotorua
- Christchurch
- Dunedin
- Queenstown

Studios in Auckland and Wellington have historically been warehouse refurbishment and have developed alongside strong production slates or pipelines. In Auckland, the studio development has been limited to stages only with ecosystems developing organically around these facilities. In Wellington, the studios also house creative and equipment suppliers that are either independent or closely associated with

[1] Virtual Production spaces are called either void or volume but refer to the physical stage space in which LED screens and cameras are used to capture performance.

the studios. Increasingly studios are now being purposed built in the main centres. Regional studio development may require a different, more deliberate approach that uses a mixed model of revenue, in order to help de-risk the investment for the investors and develop the screen sector in the region. To assist this, the study also recommends the development of real time current production overview that can be viewed by all stakeholders in the sector and cover both domestic and international productions. This will enable better decision making at production and investment level for the whole sector.

The study found that Virtual Production is a growing methodology internationally that uses a range of tools to help support and streamline screen production. Many of the tools have been developed in New Zealand over the years and it is important that New Zealand continues to keep up their pace with these developments. Virtual Production including LED virtual production voids is accelerating in the post Covid environment internationally, with most traditional main screen centres such as London, Vancouver and Los Angeles setting up stand-alone LED studios. The study found that there is a great deal of interest in virtual production through the screen sector in New Zealand and internationally. The demand in New Zealand is for the establishment of stand-alone voids in Auckland and Wellington. The study also found that the regions should have the capability available to set up a modular Virtual Production studio if required. However, the overwhelming requirement was for stage space and accompanying production support in the regions.

A GUIDE TO REGIONAL STUDIO DEVELOPMENT IN NEW ZEALAND

SPI Olsberg produced a study entitled *New Zealand Film Studio Infrastructure Study (Olsberg NZ Film Studio)* for New Zealand Trade and Enterprise (NZTE) on 22nd July 2020. The study was "*a robust overview of production demand and studio supply in New Zealand.*"[2] It included looking at six key elements with regards to the development of production facilities in New Zealand:

1. An overview of the global film industry.
2. Information on studio supply and demand in New Zealand.
3. Analysis of key drivers in attracting production, and New Zealand's competitive edge.
4. An overview of other critical strategic issues information on success and risk factors in relation to studio facilities.
5. A generic studio business plan.
6. Comparable case studies.

This study provides potential investors with:

- A background to the current demand for content and studios in post Covid sector – both internationally and domestically.
- An overview of New Zealand screen funding and activity in the regions in the last two years.
- A summary of demand for small to medium size studios as assessed by this study.
- A breakdown of interest in using a studio in regional areas as assessed by this study.
- A list of criteria that investors should use to assess a region and its ability to support a studio development.
- An overview of potential studio models that would de-risk an investment in regional New Zealand.
- An overview of virtual production, and the responding demand for virtual production facilities (virtual production voids) in regional New Zealand.

PARTICIPANTS FOR THE STUDY

In the survey conducted for this report, line producers, producers, production companies, screen organisations and studio owners were interviewed about trends they had noted within the industry, both domestically and internationally. Those surveyed came from line production, producers of TVC, TV, film, gaming, E-Sports and online content. Regional film offices and studio operators in Auckland and Wellington were interviewed, and a total of 65 companies, made up of active users of producers and associated screen influencers participated. The interviews took place in person between January and March 2020. There was an online survey for those who were unable to speak to interviewers directly due to production constraints. We have in all cases kept comments anonymous.[3] The survey is noted throughout this study as the NZTE Regional Studio Demand Survey 2021 *(RSD 2021 Survey)*.

[2] SPI Olsberg – "New Zealand Film Studio Infrastructure Study" ,22 July 2020 pg. 4

[3] NZTE Regional Studio Demand Study 2021 was run by Felicity Letcher. (RSD 2021 Survey). Questions were compiled by NZTE and NZFC.

This study focuses on productions and users that would use small to medium sized stages; determined to be T3 and T4 productions with studio sizes as a guide of less than 500m^2 for small studio and 500 – 2000 m^2 for a medium studio.

QUANTIFYING DEMAND

Demand is the most difficult issue to quantify in the New Zealand screen sector. *The Screen Industry Survey* conducted by *Stats NZ* was discontinued in June 2019, as the sector began to grow significantly due to Amazon and Netflix Originals starting production in Auckland. This means there is little retrospective data for the past two years that can illustrate growth.

For this study, the following data was used to determine demand trends:

- Regional Film Offices permitting data for the past two years where available.
- Regional Film Offices enquiry records as at March 2021 indicating what production companies are looking for.
- Compiled regional funding figures from NZ On Air.
- Compiled regional funding figures from New Zealand Film Commission (NZFC).
- Indication of attraction interest from NZFC.
- One-to-one interviews with 65 screen sector producers, line producers and company directors from New Zealand, Australia and the United States.

THE RHYTHM AND VISABILITY OF DEMAND

Forecasting demand in the screen sector is extremely difficult. It is governed by external factors such as:

- Funding rounds for NZOA, NZFC and TPK as no activity can happen before funding is confirmed. Projects are also unable to commit to a timeline before they receive funding.
- Seasons and time of year often dictate when a domestic and line production can film as we provide the opposite weather to the Northern Hemisphere. This often means that the bulk of TVC, feature and TV production film during the summer months is location dependent. This leads to a heavy consolidation of filming during the October to May period.
- Feature films and television productions coming in from offshore usually come to scout 3 – 4 months in advance of production starting. Once a scout has been done, they will then confirm the production, location base and start crewing from there. This pre-pre-production period can last as long as 16-20 weeks, to as little as 4 weeks.
- TV commercials have shorter timeframes from pitch to shooting, sometimes a matter of days, at most, a couple of weeks.

As a regional film office stated during the course of this work:[4]

> *"(Local producers…) reiterated that their pipeline is very difficult to demonstrate and that all of this is subject to change, and that they don't often know anything more than a few weeks or a month or two in advance."*

[4] Quotes RSD 2021 Survey. Conducted in person and online from January 2021 – March 2021.

> *"Demand is elastic. Demand is linked closely to availability and to supply. If there is no availability or supply and this is a well- known factor by clients then there is no demonstrated demand."*

Other respondents said:

> *"There is no planning for the industry. Why isn't there transparency – if work is coming in from internationals, why can't we talk about it? Everything gets held very close."*

The industry tends to work informally sharing ad hoc information about productions in a region or a studio, so that the industry knows if it needs to start looking elsewhere. However this system is informal and relies on one to one information sharing which is increasingly inefficient given the amount of activity that is now taking place in New Zealand.

This study has highlighted the need for a New Zealand national "current production overview similar to that published by Creative BC. [5]This weekly update provides the various stakeholders including studio owners, production companies, crew and suppliers with information that is needed to make current financial and investment decisions.

The lack of this kind of "single source of truth" means that there is a lack of visibility regarding what production is happening, when and where, and would clearly illustrate the actual activity levels in the main screen centres – Auckland and Wellington – as well as regional activity. It would provide a spotlight on areas that are increasing in popularity for filming, provided that those regions do have a film office with substantive proof of activity (up-to-date and historic), and for regions looking at establishing a film office, the data to back this business case.

A real time pipeline overview is fundamental in assessing demand for film studios outside of Auckland and Wellington.

There is a real financial risk in building studio bases, which explains why none have been built outside of Auckland and Wellington. There is a saying in the screen sector internationally (and was iterated many times by the studio participants) with regards to building studios: "Build it and they will come..." This saying encompasses the difficulty in being able to quantify demand for a stage or facility prior to it being built. The reality is that, according to those studio owners and developers interviewed for this study, it is more complex than it seems.

Failed studio developments in areas such as Qingdao (China), Alicante (Spain) and Syracuse (New York State) show that this statement is too simplistic and does not take into account of the complex nature of the sector, the timelines that it operates on and the level of income needed to de-risk an investment of this scale.

[5] https://www.creativebc.com/crbc-services/provincial-film-commission-services/in-production

SOURCES OF DEMAND

MULTIPLE SOURCES OF DEMAND AND USE OF STUDIO SPACE

The development of regional studios cannot be viewed purely through the lens of a "Greenfields real estate" investment, such as a hotel or even convention centres. It is essential to look at the different key factors that investors identify in a region when they are considering developing a studio complex outside of Auckland and Wellington. This report aims to reframe the lens through which a studio investment should be viewed, the possible model for operating that will allow for multiple income streams to de-risk the studio venture, and the central importance of partnerships at a local and international level for the success of the investment.

Studios that have been developed in Auckland and Wellington have been created as standalone stages available for dry hire. Workshops and offices have been assembled from pre-existing spaces with singular production requirements in mind. ***Stone Street Studio*** has been developed with large feature films as the pipeline, largely led by ***Wingnut Films*** and ***Pukeko*** with key associated suppliers ***Park Road Post***, ***Weta Digital*** and ***Weta Workshop.*** Other smaller suppliers such as ***Rubberband*** and ***Human Dynamo*** provide a cluster around the studio site in Miramar – again all based in one place. **Avalon Studios** is in Wellington and was built in the 1970s as the home of NZ Television Broadcasting employing some 800+ people for many years. In 2013 it was sold by TVNZ to private ownership, and more recently is focused on supporting NZ producers as well as servicing a wide range of international Film and TV productions. It also has a range of industry businesses on its premises offering a range of film production support services.

In Auckland, screen service companies have clustered around these studio sites to provide an ad-hoc eco-system such as the one that exists in Henderson West Auckland. When it was first developed, Auckland Film Studios had smaller film supplier tenants on site, which helped it to provide support for incoming productions. However, this ended as productions became larger, and the demand for space increased.

The various studio spaces in Auckland created from repurposed warehouses have been built on the back of television series repeat production cycles, with multiple producers and production companies.

Some historical examples of this are:

STUDIO	BUILDING USE	PRODUCTION
South Pacific Pictures (500m2, 700m2, 1500m2 stages, production offices, mill and workshops)	Purpose built and repurposed warehouses	Shortland Street, Outrageous Fortune, Westside, Broken Wood Mysteries
Studio West (510 m², 700 m², 700 m² stages, production offices, mill and workshops)	Repurposed warehouses	Power Rangers
Walls Road complex (2348 m², 2358 m², 2324m² stages)	Repurposed warehouses	Ash Versus Evil Dead. The Luminaries
Crown Lynn	Repurposed warehouses	Screentime productions including The Gulf

(approx. 1500 – 1700 m² of office and stage space)		
Auckland Film Studios (1924 m², 868 m², 784 m²)	Repurposed warehouses and one purpose-built studio	Xena Warrior Princess, Jack of All Trades, Legend of the Seeker, Shannara Chronicles

Once a television production has been "birthed" past the pilot and first season, it is then often guaranteed longer production runs. For example, *The Brokenwood Mysteries,* which started production in 2014, is now on season seven and broadcasted in seven different territories. The last 17 seasons of *Power Rangers* have also been produced in New Zealand since 2002. Such production streams can provide solid pipelines of activity for production and studio complexes.

Another example is the studio campus model that is used more overseas in Los Angeles, New York and Atlanta, which could be considered for regional studio development. A studio campus development needs to be seen as separate and different to a real estate development for warehousing and offices. This type of model offers a unique blend of industry specific requirements; interconnected and complementary services, a complimentary ecosystem of which screen is one of many interconnected creative industry activities being done on one site.

The mixed model approach has been looking at studio developments in regional areas outside Auckland and Wellington. It involves different strands of income de-risking the studio development.

These revenue streams include:

REVENUE STREAM ONE:

Leases for Media and Entertainment users, including those providing services to production company tenants. These could include office space for production, content and screen companies, hot-desking for creatives including directors and smaller owner operator production companies, entertainment lawyers and accountants. It could also include "lock up space" for gear that could be kept on site or near production stages by Auckland and Wellington suppliers. These would have more traditional office lease structures, giving support and recurring revenue streams for the campus.

It can also include creative tech companies such as animation, AR/VR and gaming. This encourages services and creative companies to congregate in one area, and an ecosystem to be supported and developed. **Click Studios** is developing along this model in Auckland[6]. Opened after the first Covid-19 lockdown in 2020, **Click Studios** is based on Unitec grounds and provides a home for a mixture of guilds, screen practitioners, producers and gaming start-ups. It is backing a model of community of screen clients with like-minded goals and needs. It has a strong commitment to providing internships and opportunities to those entering the screen industry. It is already looking to expand to a second building and develop a digital production studio facility.

REVENUE STREAM TWO:

Education supplier to be on site – potentially a mix of creative and technical. The education supplier possibly in the form of an established polytechnic or university would provide a cornerstone rental for the studio. It would give

[6] Click Studios https://clickstudios.co.nz. Click Studios is opening a second site in Avondale in May 2021, illustrating strong growth in just 12 months.

students access to studio facilities, support workforce development, and provide a workforce pool on site for incoming productions. Students can be placed onto productions as part of the support package given to productions coming into the campus.

New Zealander Bruce Sheridan (now the president of the International Association of Film and Television schools), conceived and helped to create the $21 million dollar ***Media Production Centre***, at Columbia College, Chicago which brings education and studios together based on a concept of modelling professional practice within an education environment.[7]

REVENUE STREAM THREE:

Production tenants renting office, mill, workshop, storage and production space. The number of stages and accompanying support space needs to be linked closely to the target market for the pipeline that they will service. Providing separate access and security is important to larger line productions. However, it was indicated throughout the research for this study that New Zealand producers are interested in sharing facilities and resources in the regions, creating more flexibility for tenants and for studio owners.

REVENUE STREAM FOUR:

Providing services and equipment that productions will use that are not available in the region. This would include lighting and grip equipment, editing facilities, sound post-recording booths and LED screens. Providing this equipment could be done in partnership with Auckland suppliers looking to expand their businesses.

This report only looks at the traditional screen production demand (long form drama and documentary and film), as the other sources of demand are project specific.

THE MIX OF TELEVISION, FILM AND COMMERCIALS IN THE DEMAND EQUATION

When assessing the mix of production activity that makes up demand, it is important to look at the length of time that each spends on production activity.

[7] Summary from Bruce Sheridan's submission to Screen Strategy 2030.

Average Use of Production Base and Stage Space: [8]

PRODUCTION TYPE	TIME FOR PREP, SHOOT, WRAP	AVERAGE STUDIO STAGE USE	REPEAT BUSINESS OPPORTUNITY
Television Commercials (T4) [9]	Prep (production base) 1 – 2 weeks prep, 1 – 5 days shoot, 1 – 2 days wrap	1 – 5 days	Unpredictable Multiple clients
Online Content (T3, T4)	1 – 2 weeks prep, 1 – 3 days shoot, 2 days wrap	1 – 2 days	Unpredictable Multiple clients
Motion Capture for Animation (T3, T4)/Gaming	8 – 12 weeks prep, 24 – 52 weeks production, 8 weeks wrap	2 – 4 weeks Motion Control Capture VFX 6 – 12 days across 6 months	Unpredictable repeat Multiple clients
New Zealand Feature	6 weeks prep, 7 weeks shoot, 3 weeks wrap	1 week and production base[10]	No repeat
New Zealand TV Series	5 weeks prep, 14 weeks shoot, 2 weeks wrap	19 weeks	High repeat, same client
Line Production Feature T2, T3	8 weeks prep, 8 – 10 weeks shoot, 2 weeks wrap	28 weeks	No repeat
Line Production TV Series T2, T3	10 weeks prep, 10 - 20-week shoot. 4 weeks	24 weeks	High repeat, same client
Line Production TV Series T1	20 weeks prep, 40 weeks shoot, 4 – 8 weeks wrap	52 weeks	High repeat, same client
Line production Feature Film T1	20 weeks prep, 40 weeks shoot, 4 – 8 weeks wrap	52 weeks	No repeat

FUNDING AND ACTIVITY SNAPSHOT – NZOA AND NZFC

The latest funding figures from NZ on Air give an indication of where production companies are based and the level of investment they are receiving from NZ on Air to produce New Zealand content.

2019-2021	NZOA Funding	%	No. of Projects	%
Auckland	$169,838,888	81.7%	350	81.2%
Christchurch	$18,030,995	8.7%	14	3.2%
Dunedin	$2,543,060	1.2%	6	1.4%

[8] Compiled from NZTE Survey for Regional Study Demand. Note all productions are different in terms of length depending on budget and script.

[9] T1 – T4 refer to Tiers of production and Qualifying New Zealand Spend. Refer to Appendix One.

[10] Figures obtained from NZFC for this study show that there were ten NZ feature films with NZFC investment in 2019 - 2020. Of these, three features had no NZSPG with average budget of $898,000. The level of the budget illustrates that many NZ feature films have a level of budget where they will not use stage space preferring to shoot on location. However, they still require premises to base the production for the duration of the prep and shoot of the feature.

Featherston	$150,592	0.1%	2	0.5%
Gisborne	$50,000	0.0%	1	0.2%
Hamilton	$400,000	0.2%	1	0.2%
Kaitaia	$380,000	0.2%	2	0.5%
Nelson	$329,931	0.2%	3	0.7%
Queenstown	$499,107	0.2%	3	0.7%
Rotorua	$469,118	0.2%	2	0.5%
Taranaki	$1,795,000	0.9%	5	1.2%
Te Tau Ihu	$206,133	0.1%	2	0.5%
Thames	$178,054	0.1%	1	0.2%
Waiheke island	$22,500	0.0%	1	0.2%
Wellington	$12,836,374	6.2%	37	8.6%
Whanganui	$99,000	0.0%	1	0.2%

This indicates that Christchurch and Dunedin (2nd and 4th respectively in terms of proportion of funding), have significant production companies already actively producing within the region. As funding is going into a company, it is assumed that it is predominantly spent in the area. Notably there are ***Whitebait Productions*** in Christchurch and ***NHNZ*** and ***Animation Research Limited*** in Dunedin. ***Brown, Sugar, Apple, Grunt Productions*** are based in Taranaki and ***Steambox Collective*** in Rotorua.

The main production companies for television are based in Auckland. While all of them base most of their work in Auckland, some of the productions are based regionally. There has been a notable shift in the last couple of years of production activity.

For example:

Christchurch – ***Kiri and Lou (Stretchy)***, Claymation animation is created in Christchurch. The production studio is in the Gate House supported by Christchurch City Council. All crew live in Christchurch. The production company Stretchy is based in Auckland.

Queenstown – One Lane Bridge (Great Southern Television) is currently filming a second series in Queenstown. It is based on location but is occupying business units as a production base. The production company is based in Auckland.

Rotorua – Vegas (***Greenstone NZ)*** wrapped filming early 2021 in Rotorua. The Vegas title sequence was produced by TORO Studios in Gisborne. It is hoped that this will go to a second series. The production company is based in Auckland.

NEW ZEALAND FILM COMMISSION – PRODUCTIONS FUNDED & FILMED IN THE REGIONS

Budgets for New Zealand features on and SPIG productions show steady growth over the past two years. In the annual report for 2018/2019 for NZFC Commission total budget of New Zealand films was $58.7m. In 2019/2020 in spite of Covid this had risen to $90m. Equity funding remained steady at $16.1m in 2018/2019 and $14.1m in 2019/2020.

Money spent by SPIG productions rose by $8 million from $621 million in 2018/2019 to $630 million in 2019/2020 despite of Covid. While much of these productions are based in Auckland and Wellington, it does show the possibility of that money being spread to other parts of the country if regional studios were developed.[11]

The number of productions that are shooting regionally, including international projects, is a great key indicator of those regional centres that are already seeing a great deal of location filming activity, and which would indicate suitability for establishing screen studios.

The following summary details filming in the regions by projects funded by NZFC and the Screen Production Grant (SPiG) between 2015 and 2021. The total number of productions in Dunedin is 12, followed by Christchurch/Canterbury with 11 productions. Combined with Queenstown, Oamaru and South Island shooting, this brings productions in the "golden triangle" in the lower South Island to 35 productions.

Of further note, is filming in the Bay of Plenty, Rotorua and Central Plateau area which has increased over the past two years.

SUMMARY TABLE OF ALL SHOOTING IN REGIONS BY PRODUCTIONS FUNDED BY NZFC AND SPIG GRANT[12]

REGION	# PRODUCTIONS	PERCENTAGE OF TOTAL PRODUCTIONS
DUNEDIN/OTAGO	12	8%
CHRISTCHURCH/CANTERBURY	11	7%
QUEENSTOWN	9	6%
SOUTH ISLAND	5	3%
OAMARU	1	1%
WAIKATO	1	1%
ROTORUA/BOP	8	5%
GISBORNE	1	1%
NORTHLAND	2	1%
CENTRAL PLATEAU	1	1%
VARIOUS – NORTH AND SOUTH ISLAND	2	1%
TOTAL	**53**	**33%**

International projects are also looking at the regions as part of their enquiry process.

[11] Figures from New Zealand Film Commission Annual Report 2018/2019 p4 and 2019/2020 pg5

[12] Information provided by NZFC on projects funded from 2014/2015 to 2020/2021 financial years.

The NZFC confirmed the following in response to discussions around the level of enquiry from international clients.[13]

- In the 2020 calendar year 18 x enquiries from international projects included a request for information about stages (in any centre including regional) in their initial query.
- Of 44 location presentations provided, 36 included images of regional locations outside of Auckland and Wellington

In the RSD 2021 Survey, participants were asked where they felt studios should be built regionally. The breakdown of answers were:[14]

REGION	DEFINITELY YES	DEFINITELY NO	MAYBE
NORTHLAND	6%	23%	2%
HAWKES BAY	6%	45%	-
BAY OF PLENTY	28%	23%	2%
CHRISTCHURCH	38%	26%	8%
DUNEDIN	43%	21%	2%
QUEENSTOWN	53%	17%	2%
CROMWELL/CLYDE	11%	53%	-
HUNTLY/HAMILTON	9%	-	-

Participants were also asked if they were looking to film projects regionally in the next two years.[15] The results are as follows:

REGION	NUMBER	PERCENTAGE
NORTHLAND	2	6%
GISBORNE	2	6%
HAWKES BAY	2	6%
WANGANUI	1	3%
BAY OF PLENTY/ROTORUA	5	16%
CHRISTCHURCH/CANTERBURY	6	19%
DUNEDIN	5	16%
QUEENSTOWN	6	19%
WANAKA	1	3%
TOTAL PROJECTS:	**32**	

[13] As per NZFC April 2021.

[14] From the RSD 2021 Survey

[15] These projects do not include line productions and are at are a projected timeline only and are subject to financing and funding approvals.

REGIONAL FILM OFFICES RECORDED ATTRACTION INCOMING ATTRACTION

As part of the look at demand, it was important to get an up-to-date snapshot from the Regional Film Offices to see what demand they are currently experiencing.

A studio developer interviewed for this study observed:

> *"As a general proposition, facilities outside of areas with existing production talent and infrastructure have struggled economically given a slow ramp up.*
>
> *"If you want a shortcut to assess existing demand for actual stages, the quickest place to look is how many industrial buildings in the area have been converted to a production use. It is the cheapest and easiest way of creating a controlled environment, even if it does not have large clear-span space. If there is little such converted space in an area, it means that you probably will need time to ramp up demand (assuming other production resources are in the community)."*

REGIONAL FILM OFFICES REPORTED THE FOLLOWING INTEREST IN FILMING IN THEIR REGIONS:

BAY OF PLENTY FUTURE PIPELINE - Unconfirmed

- Sept to Dec 2021 *Vegas 2*
- Late summer / autumn 2022 - Taupo District Feature Film - NZFC / Co-production
- Summer 2022 Rotorua Feature Film
- Summer 2022 Rotorua *Steambox* Feature Film

FILM SOUTHLAND FUTURE PIPELINE - Unconfirmed

- INT. FEATURE – July 2021 (location shoot)
- INT. FEATURE – July 2021
- INT. REALITY TV SERIES – July 2021 (expressed that a studio would be utilised if available)
- NZ FEATURE – Spring 2021
- NZ TV SERIES – Sept/Oct 2021
- NZ/Australian TV SERIES – Spring 2021
- INT. FEATURE – Feb/March 2022
- INT. TV PILOT – no dates specified
- NZ FEATURE – no dates specified
- INT. FEATURE – Indie – no dates specified – (expressed that a studio would be utilised if available)
- INT. FEATURE – Indie – no dates specified

CHRISTCHURCH

- There are three features looking to shoot in Canterbury in the next 12 months.
- Kiri and Lou – Season 5

INTERNATIONAL DEMAND FOR CONTENT

Olsberg Film Studio study noted that consumer desire for content remains high in spite of, and because of, the COVID-19 pandemic. Major producers remain committed to future funding of productions. Recovery timelines, particularly in the Northern Hemisphere, ~~remains~~ unclear in spite of vaccines now becoming available, and it is uncertain what the continued effect may be on production financing timelines and workflows.

New Zealand, with its low rates of community transmission and ability to film and keep workflow production high, is uniquely placed to become a resilient haven for international productions and those looking to purchase New Zealand made content.

International producers interviewed for this study noted:

> *"We are definitely experiencing increased demand. We are providing a base and consulting for a line production currently. It will last this year and next until the vaccine is up and working."*

> *"Yes, there is increased demand, but it has been complicated by Covid. Filming is happening in Los Angeles but under strict Covid protocols. Productions and people are desperate to go to other places that are safe."*

> *"There is very big interest and generally an increase. A proportion of it has to do with Covid, as NZ is a clean place to be. There is a fear internationally of a filming being stopped in the US, so coming to NZ safeguards a production and ensures it can keep filming".*

> *"There are over 60 productions at any time happening in Vancouver alone. There is so much content demand from streamers."*

> *"Networks are doing a lot of acquisitions and repeats of old content. They are looking for well-priced content. Not necessarily premium content, as that comes with higher risk. There are gaps in Q3 schedules."*

> *"There is increased interest in New Zealand. There is envy due to your Covid response. There is a long tail to Covid – possibly a year and a half, where productions will look to film outside of Covid-affected areas."*[16]

International producers interviewed for this report indicated that there is a 7% plus additional cost to the bottom line of a production for Covid related expenses such as PPE and additional crew. The logistics of filming are also more complicated depending on what lockdown level a city may be in. In some cases, facial condoms are being used for actors so that they can still perform intimacy scenes. None of these issues, costs or complications exist in New Zealand.

In the report, *Global Screen Production – The Impact of Film and Television Production on Economic Recovery from COVID-19 (Olsberg COVID-19 Recovery)*, Olsberg SPI's analysis[17] found that 2019 global spend on film, TV and documentary reached US$177 billion, with a total of 14 million FTE jobs, 9.8 million indirect and induced jobs, and a total economic impact of US$414 billion. The analysis also found that 67% of average production costs were spent on business services **other than** screen production.[18]

Olsberg NZ Film Studio Study notes that 65% of this screen investment originated from the US, predominantly from streaming services, studio conglomerates and large tech companies. This is a 28% increase from 2018 to 2019. Although 0.4% of production investment originates from Oceania, it accounts for 1% of the global spend – a positive difference of $US1.9 billion.

[16] Quotes Survey for NZTE Regional Study Demand in New Zealand. Conducted in person and online from January 2021 – March 2021.

[17] Global Screen Production – The Impact of Film and Television Production on Economic Recovery from COVID-19 – Olsberg SPI Pg6

[18] The analysis also found that 67% of average production costs were spent on business services **other than** screen production. Global Screen Production – The Impact of Film and Television Production on Economic Recovery from COVID-19 – Olsberg SPI pg.6

Olsberg Film Studio report notes that Netflix's international subscriptions now outnumber their domestic (US) subscriptions. Netflix Asian Pacific region (APAC), which includes NZ, saw growth of 150% between 2017 and 2019. There is also alignment with customer spending on theatrical, physical and digital home entertainment reaching US$101 billion – an increase of 34% on 2015 levels.

Global box office also grew by 3% from pre-Covid-19 levels.[19] While the future of film post Covid-19 is unclear, films are still being made and going straight to Video on Demand platforms (VOD) as part of studios' distribution strategy. For example, *Mulan* and *Wonder Woman 1984* were both released directly onto streaming platforms in 2020.

On this subject of demand *Business Wire* noted:[20]

> *"With the growing internet penetration and access to multimedia devices, customers are spending more time on streaming digital content. Streaming video is the fastest-growing distribution channel for animation and is witnessing double-digit growth and the same is expected to continue. This growth is attributed to the exponential growth in the number of online video viewers throughout the world.*
>
> *The demand for animation, VFX and video gaming has expanded with the increase in targeted broadcasting hours by cable and satellite TV, availability of low-cost internet access, penetration of mobile devices along with the growing popularity of streaming video. In addition, the demand for animation and VFX content to power immersive experiences such as Augmented Reality and Virtual Reality is growing exponentially."*[21]

THE IMPACT OF THE RISE IN DEMAND ON NEW ZEALAND

This demand for content from international channels and streamers has seen some noteworthy changes in demand that are having a positive impact in New Zealand. Some recent examples include:

- ***BossaNova***, a London based content creation and funding outlet has acquired 600 hours of content from New Zealand production company ***GreenstoneNZ*** and ***CJZ*** – including the Border Patrol and Motorway Patrol franchises.[22]
- Hulu has picked up the rights to New Zealand transgender series ***Rurangi.***[23]
- Stop frame animation series ***Kiri and Lou*** was number one on CBBC during lockdown beating Peppa Pig[24]
- Libertine Productions ***Mystic*** TV series was picked up for a second season by ***CBBC, TVNZ*** and ***Seven Network***.

[19] New Zealand Film Studio Infrastructure Study - SPI Olsberg 22 July 2020 pg. 7 - 8

[20] https://www.businesswire.com/news/home/20200131005198/en/Global-Animation-VFX-Industry-Report-2020-2025-Demand-for-Animation-VFX-Content-to-Power-Immersive-Experiences-such-as-AR-VR-is-Growing-Exponentially---ResearchAndMarkets.com

[21] Refer to Appendix 4 for more detail on New Zealand viewing figures.

[22] https://www.c21media.net/news/bossanova-picks-up-cjz-greenstone-content/?ss=Greenstone

[23] https://deadline.com/2021/03/hulu-new-zealand-transgender-drama-rurangi-streaming-1234708883/

[24] https://www.stuff.co.nz/entertainment/tv-radio/300236175/kiri-and-lou-a-local-production-to-be-ridiculously-proud-of

The New Zealand television network *TVNZ* is also committing to increase local production in 2021[25] and beyond, and recent advertising for a Head of Production for Discovery Channel (which acquired TV3 and Mediaworks in 2020) indicates that they are looking to increase their content creation in New Zealand and Australia. The Auckland Film Utilisation report noted that:

> *"Increasing government funding for new domestic content will increase pressure on supply for stage space."*[26]

85% of those interviewed for the RSD 2021 Survey said there was an increase in demand for content from both international and domestic customers.

Some producers interviewed have seen an increased interest in documentary and reality content as it has a lower production cost and can often be produced from archive material without Covid filming restrictions.

Stan in Australia has indicated that it will also increase its commitment to developing Australian drama and co-productions, for which New Zealand is eligible for. There is also diversity funding being made available through Netflix, which is looking at broadening the diversity of stories and those involved in production as a matter of priority.[27] It is projected by many spoken to for this report that content is lagging by about 12 months due to the shutdown and reduced ability to film during the Covid pandemic. All of these signpost a willingness to develop and commission new content from a variety of sources across the board.

As part of the Covid response in New Zealand, the government allocated an additional $50million dollars to the *Premium Productions for International Audiences Drama Fund* which is being administered jointly by *New Zealand Film Commission (NZFC)*, *New Zealand On Air (NZOA)* and Te Māngai Pāho (TPK). This funding is the first injection of new funding into domestic production in over ten years. The fund intends to "…capitalise on New Zealand's current production advantage and support the sector with employment opportunities, the Premium Fund will have up to $50,000,000 available to invest. This is a significant one off opportunity to drive a step-change for the sector by allowing production at a scale and ambition not previously possible."[28]

At the time of this report, any decisions have yet to be announced. However, it is hoped that there will be at least three major drama productions from this fund – if not more – with funds needing to be committed to production no later than early 2022.

REGIONAL INFRASTRUCTURE DEVELOPMENT – INTERNATIONAL SPOTLIGHTS

The Guardian newspaper article in November 2020 described the growth of investment in studio development in London. The article stated that, in spite of

[25] New Zealand Herald, TVNZ to splash cash on local content, 27 February 2021.

[26] Auckland Film Studio Utilisation, March 2021 pg 2

[27] https://about.netflix.com/en/news/building-a-legacy-of-inclusion

[28] Premium Productions for International Audiences Fund Guideline for Applicants February 2021 pg 2

Covid-19, a 300-million-pound deal with Barking and Dagenham councils to build studios in East London had been made. [29]

"Film, and TV production in particular, has been on an absolute boom." says Jason Hariton, Chief Real Estate Officer at US film studio operator MBS Group, which will run the Dagenham studio complex.

"The quantity, the budget, the amount of films and TV shows being made in all the [world's] main production hubs is all increasing. In the fourth quarter this year, we are setting a seven-year record for quantities of productions serviced" he says.

"We are seeing all the projects that stopped when the pandemic hit starting up again and seeing new projects being raced to market to fill the void, because of all the content that was consumed. Even if you take [the pandemic] aside, the industry has been on an explosive upward path."

Regional infrastructure development has had an extremely positive effect in parts of the United Kingdom, such as the development of studios in Yorkshire. In fact, the North of England and Scotland are now being developed by Channel 4 as regional screen hubs to get away from the constrained and "clogged" industry in London. Purpose-built sites in regions also have high demand from local and international producers, as well as good quality pop up sites.

Internationally many studio developments have been actively supported by regional or local councils in terms of full ownership or public private partnerships, including examples in Australia and the United Kingdom (*Melbourne Dockland Studios* and the new Belfast Studios are examples of this). These regional economic agencies recognise that studio projects deliver on wider regional economic development strategy that provides and builds employment and expertise in the creative industries.

Instead of competing with major centres of filming, studio complexes in the regions can develop alongside them as "value added" location opportunities, complementary to the main filming centres. They look to capacity constraints that are appearing within major filming centres to see how they can provide a solution.

- Edinburgh City in Scotland has promoted its ability to shut off large sections of the city easily for car chase scenes, which is extremely difficult to do in London.
- They also develop locally based content and production companies. Liverpool successfully developed and shot ***Peaky Blinders*** in Liverpool (with the additional support of a regional strategy from the BBC). This in turn, developed the crew base in Liverpool, and increased the interest and ability of other producers and line productions to begin to base themselves in Liverpool.
- Areas in the United Kingdom have also developed regional incentives to help offset the additional cost of bringing crew into an area. Yorkshire has offered local incentives which offset the cost of bringing a production to a particular area . This is equivalent to NZ$2,500 per person[30] and adds in

[29] Covid Pandemic fuelling growth of film and TV studios in the UK, The Guardian, Mark Sweeney 7 November 2020

[30] $2500 is the quoted cost by NZ line producers of having a crew or cast member "on location" and includes the cost of their accommodation,

training and upskilling local crew as an offset to this.

Black box studio developments that are just stages and workshops do not provide satisfying return on investment for average land and real estate developers when put up against traditional industrial warehouse and office tenants who are willing and able to sign multi-year leases at stable yields for the investor. They also tend to still be seen by banks and financial institutions as real estate investments rather than ongoing business investments.

Successful studio developments for regional New Zealand in the next ten years should look closely at the local creative industry and see how they can fit into and build on what is currently there and has active demand

COST SENSITIVITY

As part of the survey, producers and line producers were asked to discuss the rates they had been paying recently for warehouse spaces and studios in Auckland and Wellington. Warehouse availability *prior to Covid-19* was less than 1% in Auckland and traditional commercial landlords were not interested in looking at short term leases that film and TV clients were able to offer, preferring to sign up two year leases as a minimum. Warehousing was also at a premium cost.

Different regions are experiencing a mixture of commercial real estate vacancy – Auckland is at time of writing at 2.1%, Wellington 3.1% and Christchurch 5.3%. If commercial real estate is readily available and considerably cheaper than a studio campus that is a simple retrofitted warehouse, producers are more likely to choose the cheapest option.

As part of building the respective business case for a studio complex in a region, investors need to consider how they build up the value proposition regarding equipment that any production will absolutely need and have to bring into a region when they consider filming there. This can be done through:

- Developing relationships with equipment suppliers to provide equipment on a cost plus margin to incoming productions and have it kept on site at the studio
- Own equipment and provide it as part of the studio package

This is explored later in the study in other ways. It will in part de-risk the investment and provide a much needed service to the production company/client.

Most producers and line producers interviewed commented “It depends what it covers,” and “It needs to be cheaper than Auckland studios.”[31] The cost of taking a production to a region from Auckland or Wellington is considerable including increased crew, transport and equipment travel costs. See later sections in report.. However, the ability to solve these issues for a production and create a revenue stream is extremely valuable to a studio campus proposal.

Aggregating costs from those interviews reveals that productions are often paying upwards of $20,000 to sound proof and do basic black out on a warehouse space to film for 1 – 2 days. Producers and line producers in New Zealand are very experienced in “making it work”, with

per diem and travel per week. Data from the RSD 2021 Survey

[31] Quotes Survey for NZTE Regional Study Demand in New Zealand.

warehousing, old packing sheds and industrial units for offices. However, when production is repeatedly happening in an area such as Queenstown or Dunedin, the case to amortise that cost for productions becomes more compelling.

When aggregated the reasonable rates for dry hire of a medium stage space (1500 – 2000m2), production offices, mill and workshops for drama was:

- $3,068 per day
- $19,095 per week
- $62, 074 per month[32]

For TVC based on a small stage space (.

- $2,530 per day
- $12,646 per week[33]

When attracting offshore drama line production, it is important as part of the business case to bench mark the facility and services against offshore facilities of similar scale and quality.

When looking at this economic impact, screen production and accompanying studio development can be seen as similar to investment in events, convention centres and performing arts venues, particularly in major regional centres such as Christchurch and Dunedin. Christchurch for example already has an events incentive to attract events to the city, and Dunedin has just advertised a new fund to attract events to the city.[34]

---

[32] Aggregated from 53 respondents to in person and online survey. Not all respondents were able to give accurate figures. All used examples of previous costings in 2020/2021 from commercial rental or studio hire.

[33] Note TVC's require on average less space – 300 – 500 m^2 and less time in a stage space. If on location outside of their production base they would also require production space.

[34] https://www.scoop.co.nz/stories/AK2102/S00528/720000-regional-events-fund-for-dunedin.htm

COMMERCIAL CONSIDERATIONS

FACTORS FOR INVESTORS TO CONSIDER

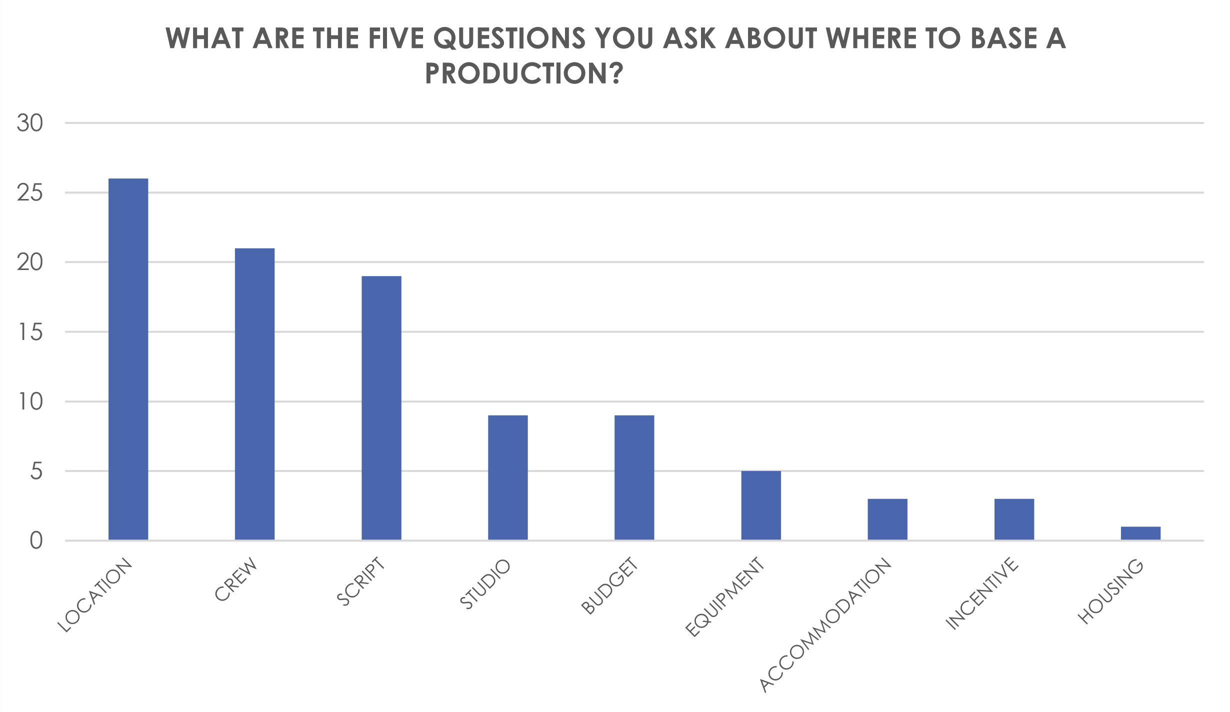
As a launch pad we looked at the Olsberg NZ Film Studio report that created an overview of location decision factors when looking at a place to base a production:

Olsberg NZ Film Studio Report Overview of Key Production Location Decision Factors and the New Zealand Offer

FACTORS[35]	
1	Creative specifics of the project that will determine the locations and 'look'
2	Actual budgeted line – item costs of production
3	Effect of a financial production incentive and exchange rate in reducing costs
4	Availability, quality, depth and skills levels of the workforce
5	Sound stage and studio capacity and quality; equipment
6	Variety and accessibility of shooting locations
7	Perceived ease of filming: 'film-friendliness'
8	Effectiveness of support from national and local film commissions
9	Quality and variety of hotels, restaurants and other lifestyle factors
10	Personal preferences of key talent involved
11	Safety and security for personnel and equipment
12	Variety and availability of transportation options
13	Communications infrastructure including broadband

To test this in the New Zealand context, respondents were asked: What are the five key questions producers ask themselves when looking where to base a production? A summary of the answers were:

[35] New Zealand Film Studio Infrastructure Study pg. 25 - 29



As the graph illustrates, priorities for those interviewed for this study are very similar – location/script, crew, studio, budget and equipment. An investor needs to include these priorities as a starting point in creating their business case for regional studios in New Zealand

As part of the RSD 2021 Survey, those interviewed were also asked to identify the key constraints existing in New Zealand. They identified the following:

WHAT ARE THE CONSTRAINTS IN GETTING PRODUCTION UP AND RUNNING IN NEW ZEALAND?[36]

Lack of studios	***32%***
Crew availability	***28%***
MIQ	***21%***
Budget, incentives, money	***13%***

Respondents also noted the following:

"Permitting and locking down streets is hard in Auckland. Wellington is really good. Regional is better for getting streets shut down."

"It is becoming impossible to work in Auckland. Parking and unit bases are miles from location. A production is up against time and the traffic."

"It is becoming very expensive for crew to live in Auckland and Wellington, especially younger

[36] Survey for NZTE Regional Study Demand in New Zealand. Conducted in person and online from January 2021 – March 2021.

> *crew coming through. It is important that they can afford to live in the city they are working in."*

> *"Accommodation is very expensive now in Auckland and Wellington and pre-Covid was difficult to get".*

Olsberg NZ Film Studio study echoes this on-the-ground sentiment:[37]

> *"There may be scope for regional development, particularly given the amount of production in Auckland and Wellington, but this would only be feasible with a robust facilities and workforce development strategy. Furthermore, the development of a business plan would also need to reflect the upskilling required, and make provisions for alternative revenues as the local industry is developed. Such revenues can provide critical financial input and can be developed from a range of sources."*

Therefore, a good starting point for a studio business case is to look at what a region can do to provide solutions for these constraints, as well as the role they would play in what one interviewee called "Studio NZ". How can they help address film-friendliness (ability to film in an area), workforce development, growing the New Zealand economy as a whole, and provide additional support to productions who would like to film outside traditional film centres but have budget constraints that prevent them from doing that?

AUCKLAND FILM STUDIO UTILISATION

The scope for regional development is backed up by the evidence that Auckland is currently at bursting at the seams with activity and is forecasting further growth. Traditional centres of Auckland and Wellington are experiencing a surge in demand over the past two years that has led to current studio facilities being at full capacity. A report on Auckland Film Studio Utilisation from Auckland Unlimited in March 2021[38] made the following observations:

- Despite the impact of COVID, there has been a surge in international demand.
- All existing Auckland studios are full until February 2022.
- Post Covid, productions are coming in with longer lead times which are allowing better supply management amongst studio operators who can now plan 1 – 2 years out rather than the pre-Covid 3 – 6-month lead time.

Auckland Unlimited report made the following international observations:

Average Los Angeles studio occupancy is currently 93% (median of 89%)

The following general notes were made about sound stage capacity in Auckland:

- 100% increase in sound stage capacity since 2017.
- 91% average utilisation since 2014.
- 97% utilisation over the past two years.
- Film location permitting is at record levels.

This data shows that line production and domestic production already has reached capacity in Auckland and will naturally

[37] New Zealand Film Studio Infrastructure Study pg. 19

[38] Auckland Film Studio Utilisation 2014 – 2020 report from Auckland Unlimited, March 2021

look elsewhere in New Zealand to satisfy that demand. That activity needs to go somewhere, which is why there is increased interest in regional areas for studio development. If you combine this overflow of demand with the regional success factors that are in place in some regions as illustrated below, a strong argument can be made for regional development.

Studio capacity data in Auckland[39] shows:

STUDIO	2017	2018	2019	2020
Auckland Film Studios	90%	87%	100%	100%
Kumeu Film Studios	100%	100%	92%	100%
Studio West	82%	78%	100%	100%
Walls Road Warehouse Studio	82%	82%	100%	100%
Highbrook Studios			100%	100%

INVESTOR CHECKLIST

Studio developers in the US indicated in an interview for this study that it was vital to have a "vision" and a long time frame in mind to achieve it. This advice is familiar to those investing in an entrepreneurial endeavour as an early mover in an emerging industry. In this instance, the New Zealand industry has reached into a level of maturity that comes with demand. [40] As a regional screen sector operator observed:

> *"When Rocket Lab began there was little demand for a private rocket launch company in New Zealand. It didn't exist until someone came along and created it. It's about a chicken and egg. The traditional investment point of view doesn't work with studios. It needs to have a new take on the business model beyond traditional ROI."*

The Olsberg NZ Film Studio report stated[41]:

> *"… any plans for establishing regional studios would need to carefully consider **how to create the infrastructure needed to support the required production activity**. Simply creating stages alone would **not necessarily deliver long-term sustainability**. Demand exists but not just for dedicated, interior shooting spaces. Other elements of the offer are important, such as **a credible and high-quality local workforce**, **access to desirable locations and transport hubs**, and a range of other possible components such as **backlots, supply chain clusters, training establishments and possibly other creative industry activities**."*

Studio development in regional New Zealand, as it is international case studies outlined already in the early sections of this study, needs to be viewed as partnership between entrepreneurial spirit

[39] Auckland Film Studio Utilisation 2014 – 2020, pg 5- 10

[41] New Zealand Film Studio Infrastructure Study, pg. 13

and regional economic development with partnerships in education, investment in content development and offshore studio engagement.

Factors an investor should consider when looking at regional activity include:

ACTIVITY LEVEL ALREADY HAPPENING IN THE REGION	• ***What is the current level of activity in the region?*** • ***What is the enquiry level in the region?*** • ***Do they have a way of managing the enquiries?***
LOCATIONS THAT ARE EASILY ACCESSED IN THE REGION	• *What locations does it open up to a production within an hour's drive of the production base or studio?* • *Are these easy to access for a film crew of varying size. Are they available elsewhere in the country?*
REGIONAL GOVERNMENT SUPPORT	• *Is there an active film office?* • *Does the region have a creative economy strategy?* • *Is the mayor and surrounding councils supportive and investing in screen already through the film office?*
CREATIVE ECONOMY IN THE REGION	• *Is there a creative economy in the region that is recognised, measured and active? Does it include already established production companies who have established sales channels to markets domestically and internationally?*
CREW BASE IN THE REGION	• *What is the crew base in the area you want to build the studio?* • *Does the film office have a register and is it easy for visiting productions and production companies to get access to them?* • *What are the constraints for crew in the rest of the country?*
SCREEN EDUCATION IN THE REGION	• *Is there a polytechnic/university or private training institute in the area and what is the level of expertise and teaching in the screen and creative economy?*
BUSINESS SUPPLIERS AND SUPPORT	• *What is the local support industry like in terms of construction, engineering, hire facilities, rental cars?* • *What is the specialist equipment availability in the region?*
LIVEABILITY OF THE REGION	• *Is there plenty of good quality accommodation at a range of price levels in the area?* • *Is it affordable to buy a house in the area if you are looking to attract crew actively to an area? Are there places to eat, relax and have great down time recreation?*
FOCUS AND CLIENT MIX FOR THE STUDIO	• *Does the studio have the right partnerships and relationships to create a pipeline of production for the studio?* • *What will be the focus for the studio complex?* • *What is the mix of local and international productions?* • *Should the studio act as an investor as well as a service provider?*

GROWING THE CREW BASE

Crew is one of the top questions that producers, line producers and studios look at when they are considering where to shoot. New Zealand crews have fantastic reputations internationally – for creativity, problem solving and skill base. This expertise is gained from working on a mixture of both line production and local productions.

Internationally, the demand for content has shown up in a corresponding demand for hard infrastructure such as studios and soft infrastructure such as crew. New Zealand is also witnessing this demand with experienced crew in all departments being sort after. It is not possible to put up hard infrastructure without looking at developing soft infrastructure alongside it – so crew development must be a part of any studio development regionally.

The economics of it speak for themselves: It costs a production on average $2,500 per person per week to be on location. Line producers interviewed for this study stated that taking crew above 5% on location is not cost effective and away from production. The smaller the project, the bigger the impact on budget crew have, the more it becomes an issue for a producer. T1 productions for example are able to consider accommodating significantly more crew than a T3 or T4 production. Therefore in order for a regional studio to be successful, it must look at what crew base is already in a particular region, have it thoroughly mapped and then actively invest. Other partnerships are required to increase the existing crew capability, attract crew to live in an area and train new people to come into the sector in a co-ordinated way that matches the production pipeline.

Education becomes a key part of the makeup of a regional studio – as an active partner and a potential revenue stream.

STUDIO DEVELOPMENT DESIGN

The design and layout of a studio campus needs to reflect the intended use of the studio and stages, the mix of permanent and short-term production tenants and how productions can "bump in and out", sharing space with each other. Unlike in Auckland and Wellington, the sustainability of a studio campus will be about sharing the stage and production office space efficiently and maximising the way the space is used. This will mean multiple tenancies overlapping and a mix of international line production, domestic line production, domestic production and other screen activity.

Some of the physical set up development concerns that can be covered off by a studio campus include:

- Accessibility
- Electrical
- Sound attenuation/dampening
- Rigging
- Stage dimension and layout to suite multiple clients
- H-Vac and exhaust
- Basecamp and parking
- Mill and workshops
- Connectivity – telecoms and fibre
- Office configuration.

A studio campus regionally should also actively address areas of concern for producers and line producers to make the value proposition of using the studio campus and coming to the region as easy as possible. This may include:

- Lighting and grip equipment including heavy equipment.
- Security
- Management and staff
- Backlot – locations should be all within an hour of the studio for travel
- Tank or ocean access – there is only one tank in New Zealand at Kumeu Film Studios which has a permanent client for the next few years and will not be available for hire
- LED capability
- Motion capture.

STUDY RESULTS REGARDING STUDIO FACILITIES

For this study, respondents were asked an open question about their priorities for studio campus developments in the regions.

	MUST HAVE	NICE TO HAVE
SOUND PROOFING	88%	12%
BLACK OUT	81%	5%
TRUCK ENTRANCE	83%	5%
PARKING	40%	0%
LIGHTING RIG	58%	33%
RIGGING POINTS ON THE ROOF	50%	27%
WHITE OR GREEN CYC	25%	33%
LIGHTING PACKAGE	42%	5%
GRIP PACKAGE	17%	17%
LED PACKAGE	33%	25%
MOTION CAPTURE CAPABILITY	25%	33%
PRODUCTION OFFICES	79%	10%

WARDROBE AND ART DEPARTMENT	62%	45%
MAKEUP	45%	43%
STAGE SPACE	43%	26%
CONNECTIVITY	40%	0%
MILL	10%	
REHEARSAL SPACE	7%	
SUPPLIERS	5%	
POST	5%	
KITCHEN	5%	

During the course of this study, it has been overwhelmingly expressed by those interviewed that they believe "hotdesking" opportunities and established "production support" is desirable for all kinds of different productions.

73% of those interviewed were based in Auckland or Wellington, which means when they go to the regions, they are going because they are drawn to film there for location and script reasons (the two priorities are very closely linked). The first thing they will always need on location is a place to base the production (production base).

For TVCs in Queenstown this historically has meant basing themselves out of hotel suites or apartments which cost up to $750 –$800 pre Covid, for up to a week while the production is prepping and shooting. This illustrates an additional potential income stream for a studio campus model.

SIZE OF STAGES AND STUDIO RATIOS

During the development of the survey - and in talking to people across the sector, this study looked at what size studio would be most used by the T3, T4[42] tier productions. These productions and projects generally need small to medium size stages if required and for use as an alternative shooting location during wet weather (wet weather cover) for location shoots, production offices, wardrobe, makeup and storage.

Small stages averaged 280 – 500 m² *are suitable for TVC and small NZ feature, drama shoots normally on location. Medium stages 1050 – 1560* m² *are suitable for drama.*

There has been an increase in the size of stage that producers are looking for. Many of the studios built in the 1990s to 2000s in Auckland and Wellington were around 500 – 700 m². In this survey, 56% of those surveyed said their ideal sized studio for hire is between 1500 – 2000 m². 2000 m² can hold three set builds – two permanent and one swing set for a television series. Larger productions in the T1 and T2 budget range need double or triple this space.

The ratio of office space to stage space is also higher than a warehouse build. The use of office space also grows and then shrinks again over the life cycle of a

[42] T3, T4 see glossary for budget definitions.

production – hitting peak requirement just before shooting begins.

Each production is different but taken from research for this study the following ratios can be used as a guide:

Studio campus: 1,500 – 2,000 m² stage space

	RATIO	1500 m² stage	2000 m²
Mill and workshop space including wardrobe, props, storage	2:1	3000 m²	4000 m²
Office space down production cycle	0.5	750 m²	1000 m²
Office space up production cycle	1.5	2250 m²	4000 m²
Storage	0.5	750 m²	1000 m²

THE ABILITY TO STAGE THE DEVELOPMENT OF A STUDIO CAMPUS

It is vital when looking at developing a studio campus in the regions that the development can be phased.

1. Establish a permanent production servicing hub with wet weather cover studio
2. Add stages to the complex as demand is demonstrated
3. Add backlot and additional services

By developing a permanent production servicing hub first, hot desks and supplier lockups and relationships. One to two stages, depending on the scope of the development, would be enough to test the market for the campus and the actual demand for stage and production space.

An important aspect of studio campus development is where to place them in relation to the centre of town. It is important that the zoning is appropriate for light industrial and studio activity. The ability and commitment of a council to be able to move quickly on zoning issues is a key factor in whether a region is ready for studio development. ***Olsberg NZ Film Studio*** study noted: "*(Local authorities) can also assist by identifying land or progressing private developments quickly through necessary planning processes, and can also prime the market by investing in state-of-the-art technology and digital connectivity.*"[43]

As outlined in the section on Cost Sensitivity, establishing partnerships with suppliers of equipment, including general equipment (photocopiers, dryers, washing machines, printers and phones), is an essential part of the value proposition. However, more specialised equipment (lighting, grip and rigging) is potentially more important and a good income stream. By organising a mutually beneficial partnership with suppliers in Auckland and Wellington (and offshore), facilities can gain access to key equipment that productions will need regardless of their size. If the studio campus is are able to organise rates so that they can make a .5 – 10% margin on equipment and help a fellow supplier expand and grow their business, then the whole ecosystem benefits.

[43] SPI Olsberg Covid Recovery report, pg 46-47

Stone Street /Miramar Group in Wellington and ***X3 Studios*** in Auckland have equipment supply divisions. But traditionally the model of providing equipment with the studio has not been a practice of New Zealand studios but is extremely common offshore with preferred suppliers being a key part of studio income streams.

Repurposing existing warehouse space has traditionally been the model used not only in New Zealand but internationally to base a studio complex development around. It is cost effective and provides investors to test the business case for a studio complex ie start small and then develop out from there. The cost of building purpose built studios and the charge out rates are the keys in creating a business case.

During the research for this study, we also encountered new developments in studio building models including a modular system of film studio and other building systems that film industry experts are looking closely at. These initiatives are all aimed at bringing down the initial investment costs involved in studio development. Reducing the initial and overall risk for investors is extremely important and should be addressed at all stages of a build.

It is important to note here that no studio development in New Zealand has been a totally "Greenfields" development – rather "brownfields" or existing facility conversion. While developing on rural land, providing room for expansion, a phased approach and possible backlot is desirable, it often runs into cost and ROI issues.

Internationally repurposed sites including the Harry Potter studios in Lewisham which was built from an old airport hangar are often favoured as they provide the developers the ability to get a space up, operational and assess demand more easily – taking a region and council authority with them on the journey.[44]

STUDIOS AS INVESTORS IN PROJECTS

One of the noticeable relationships that emerged in this study is the high esteem that New Zealand producers have for **Avalon Studios** – particularly those based in Wellington. ***Avalon Studios*** act as a provider of office production space, stage space but also invest – either officially or unofficially in feature productions. This relationship has developed a strong attachment to **Avalon** by many producers across the country. It also provides a model for regional studios who are looking to develop the IP creators based in their centre. By providing access to space and equipment at reduced rates, they take a profit share on the project. This model has often been used by post production companies in the past and provides a way of recognising the commercial cost of the services provided and the reciprocal investment that is being made by providing those services at an upfront discount.

Regardless of the model used, developing a strong working relationship with production companies in the region is key as they provide a core source of production pipeline that can work as part of a studio campus' pipeline.

[44] https://deadline.com/2012/06/warner-bros-officially-opens-u-k-studios-at-harry-potter-home-in-leavesden-284454/ Leavesden is approximately an hour out of greater London as is Pinewood and Shepperton.

VIRTUAL PRODUCTION – A TOOL OF THE FUTURE

Virtual production has become a buzz word since the Covid-19 pandemic and has come to mean different things to different people. For the purposes of this study, a range of industry professionals engaged in virtual production were interviewed. This included studios, LED panel suppliers looking at Virtual Production, production companies doing R&D on virtual production stages, crew and HODs currently using virtual production LED screens, VFX companies and suppliers who are using virtual production as part of their workflow along with companies providing content for virtual production.

Virtual production comes in many forms – some call it a technology that is like a plugin for a production, and others refer to it as a methodology and an evolving tool in creatives and film makers toolboxes.

> *"It is an agile process characterized by starting VFX earlier and leveraging technology throughout the entire production life cycle to enhance the way content is created."*[45]

The processes and uses can include[46]:

- ***Visualisation*** – using 3D images and walk around sets to view work in progress, plan shots and view storyboards. Pre-visualisation is becoming more common and is used more in feature films than traditional TV series due to the turn around and planning differences between the two formats
- ***Motion capture*** – using movement of people to animate VFX assets
- ***Hybrid camera*** – compositing digital VFX with live action camera footage in real time
- ***LED live action*** – replacing shooting against green or blue screen with shooting against LED screens in a "void" so live action can take place in front of a static or moving image.

Virtual production relies on a convergence between live action (LED panels), game engines (Unreal and Unity engines) and screen (VFX).

Virtual Production has seen a boom as a result of the highly publicised use of LED screen voids in the making of *The Mandalorian*. Other factors that have contributed to the increased interest in virtual production is:

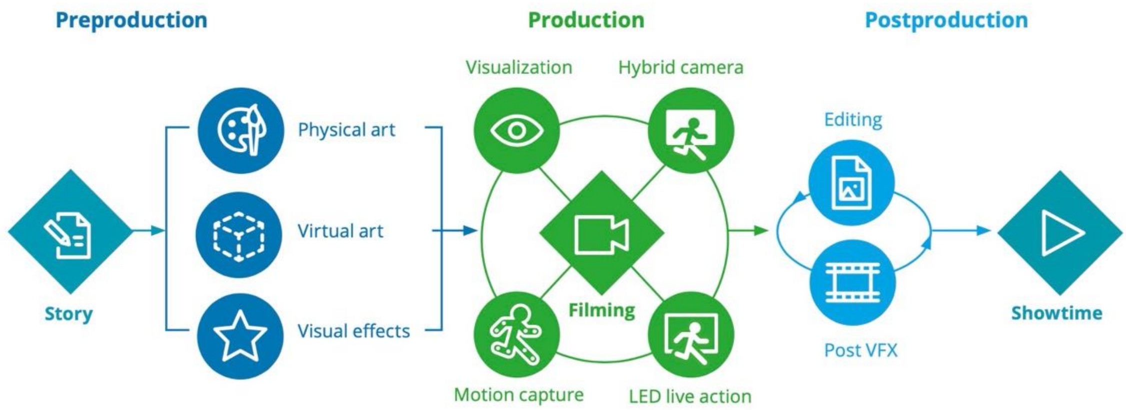
- the growth of VFX use in all aspects of screen content creation,
- the timeline of Covid-19 requiring new approaches to being physically present at shoots, the amount of crew required on different locations and real set,
- controlling the Covid 19 risk by moving production onto a sound stage with a more controlled environment.

The Virtual Production workflow requires VFX concepting, world building and asset creation to happen earlier in the production process – therefore upending traditional workflow processes. This requires a rethink by studios, production companies and visual effects supply companies.

[45] The Future of Content Creation: Virtual Production, Deloitte 2021 pg.3

[46] The Future of Content Creation, pg. 4

***Table: Virtual Production Pipeline*[47]**



Virtual production voids are popping up all over the traditional centres of filming – London, Vancouver, Los Angeles and Atlanta. Recently a *Stagecraft* volume (the Virtual Production system developed by *Industrial Light Magic* (ILM) was set up in Sydney for use on a Marvel Production. There have been virtual production facilities established in Sydney and Melbourne. This has allowed cinematographers and DOPs in Australia to start trialling and experimenting with the technology, providing invaluable creative capability opportunities.[48]

It is not surprising given the pipeline and the hard infrastructure requirements to set up LED voids, that it is large franchise or VFX heavy shows that are at the forefront of using and advancing the technology. They have the asset bases already, and are set up with VFX companies heavily involved in all aspects of production. It is therefore a natural step to take.

WHAT IS HAPPENING IN NEW ZEALAND WITH VIRTUAL PRODUCTION?

New Zealand productions and companies have been at the forefront of the development of virtual production. *Lord of the Rings, The Hobbit, War for the Planet of the Apes and Avatar* all pioneered new developments in technology such as blue and green screen, motion capture and simul cam. *Murder on the Orient Express* used LED screen technology – the plates were shot on location in the Southern Alps. *The Adventures of Tintin* filmed in New Zealand using motion capture and 3D animation at ***Weta Digital*** is another example of the evolution of this technology.

In late 2020, ***Weta Workshop, Avalon*** *and* ***Streamliner*** created a partnership to test an LED virtual production void. The tests

[47] The Future of Content Creation, pg.4

[48] Virtual Production - A Cinematographers' Conversation

were a huge success[49] and the partnership between VFX vendor, stage and LED screen provider is a blue print for the development of other virtual production voids or volumes in New Zealand.

All three components are essential and provide greater certainty and comfort to a client. The conclusion that can be drawn from this test and information gathered during this study is that **a modular system** that can **be moved around and change in size and shape** is the most advantageous – particularly to the New Zealand experience.

Other shoots such as *Sweet Tooth* (Netflix) have used large LED screen technology to providing moving backgrounds as part of a set. The most common use is for car tracking shots using real footage to shoot dialogue or action inside moving cars. Feedback on the use of LED panels in this way was:

- *It is very stable in terms of shooting in a studio with a variety of light states, including particular times of the day like dusk or dawn*
- *Cost effective – or at least not prohibitive as it fit with the workflow with the VFX company*
- *Had to really work at the assets being ready for when they started shooting. It requires a great deal of preplanning and post work done during prep which is not what the current production pipeline is*
- *Was very exciting about how it worked and the detail it could achieve*
- *Really had to watch that the assets weren't too "computer generated" looking to match the overall aesthetic of the production.*

VIEW FROM THE INDUSTRY

Most drama producers and line producers interviewed for this study knew about the technology but did not have access to a Virtual Production facility to view it in action or had a project that had used it. Producers who had investigated virtual production in the last twelve months had found the cost prohibitive for what it was, or not fitting with the aesthetic of their productions. They were all very interested in seeing it operating and how it could work. All indicated that they could see that it would be the future in some way shape or form but the extent of its use was going to be heavily cost dependent.

New Zealand funded features and television series do not use a lot of VFX and have not therefore considered using LED virtual production. ***The Granary***, a Wellington company is setting up a business model that emphasises virtual production technology and ability to use it by New Zealand based productions. E-Sports require LED screens as part of their game play and could be a good user for a volume outside of Auckland.

Those working in and with virtual production said that **permanent Virtual Production voids needed to be based where the majority of the crew and production workflows were**. The research shows that Auckland and Wellington are prime centres to establish standalone virtual production voids. At the time of writing LED suppliers **Big Picture** and **X3** were both developing small R&D virtual production voids and actively engaging with industry to explore partnerships with

[49] Special Presentation from Weta Digital https://www.youtube.com/watch?v=03XMTFjZaUY

studios, VFX vendors to expose the sector to the possibilities of the technology.

There was interest in ***having the capability available*** regionally particularly in the South Island. The virtual production system should be modular and able to have ease of use. A number of Christchurch companies have already started to explore establishing their own virtual production studio set ups, using LED screens from events companies. They are combining expertise from gaming and screen production companies to provide content, highlighting a thirst to use and develop expertise in this growing area.

Comments from participants for this study include[50]:

> *"Would like to use in the future."*

> *"Needs to be consistent with the rest of your production. Go out get landscape shots, studio shots and do VP. Using technology to get a shot."*

> *"Works well for film – takes guess work out of location work. No requests for it in TVC."*

> *"Not there yet, had presentations but are physical producers. Open to learning."*

> *"Technology needs to get better. Doesn't make sense for film. More sense for TV with tight deadlines. Want it where the crews are."*

> *Virtual production is an asset – such as using it for car shots. It can be anywhere in the world. Replacing building big sets can save time etc. But you need to build it virtually up front. Need to do the cost comparison –wouldn't work out on smaller projects."*

> *"I have one production that would look to use virtual production. Looking at proof of concept – two years before filming."*

> *"It is being creatively driven."*

> *"Building a studio is about education."*

> *"Done tests – expertise is key. Attract companies here through the incentive – needed to encourage immersive tech."*

> *"We are doing tests – need to figure out the workflow –looking at camera tracking etc."*

Not enough demand yet for a standalone VP studio regionally – it could be any studio or space.

At the time of writing there are no productions or line productions that have used virtual production voids in Auckland or Wellington aside from those mentioned above. Larger line productions in Auckland and Wellington are understood to have considered Virtual Production as part of their workflow but not gone ahead is it didn't suite their creative approach to the projects. However, it is understood that enquiries from offshore for Virtual Production voids and facilities have increased since Covid 19 crisis. Companies bidding on international VFX work are being asked to quote on virtual production assets as part of the workflow process as much as 100% more than they were prior to Covid 19.

50 Survey for NZTE Regional Study Demand in New Zealand

COST OF VIRTUAL PRODUCTION

While there is much discussion in the literature about how virtual production will bring down the cost of filming and its cost effectiveness, it is yet to actively play out that way. The cost of the LED panels is extremely high and the corresponding investment in upkeep, maintenance and technician fees require significant investment. Studio investors need to consider if it is part of their business model to own this equipment
(as outlined in previous sections). If it is not a studio's core business it could be seen as prohibitive. Currently the RSD 2021 Survey and research for this study indicates that the need for stage space is more vital in regions than LED screens.

However, in order to maintain future competitiveness of a facility, provide educational opportunities and a potential service to incoming clients it is recommended that regional studios look at:

- Infrastructure to support the use of screens such as power and rigging loads
- Partnerships to provide screens and technicians from LED providers
- Have a group capability of a number of regions who may use them such as South Island, so that screens could be based there permanently and shared amongst the various campuses
- If demand is demonstrated, then a further equity partnership could be investigated with LED supplier companies.
- Develop training opportunities to grow the creative and technical talent pool required in collaboration with its partners in the ecosystem.

Average time needing the technology varies and much of the production indications are that **less** production time is needed in an LED void than on a normal set or location due to the change in workflow.

Indications of cost to use virtual production studios was difficult to obtain for this study. Indications received suggest between US$10 - $15k per day to use an LED void. This did not include creating the digital assets or for testing filming processes. Voids can vary in size from 600 m^2 for car shots to 6000 m^2 for large sets.

Indications are that virtual production is not currently affordable for TVC and low budget productions. However, if virtual production was able to be made available on a system similar to what has been pioneered with other technologies like body scanning in Auckland, it would grow the capability and creative growth of the sector as a whole.[51]

Virtual Productions gives producers and filmmakers a massive advantage by creating controlled environments to film in, that takes away the difficulties of practical film making including light and weather conditions and times of day. There is also massive advantage to filmmakers and producers by removing the need to have large unit moves, by filming plates or mega scans with a small unit and then coming back to the production base to use them in a virtual production context with a larger crew and a more controllable environment.

---

[51] Staples VR has a body scanning system that is on site with an international line production in Auckland. They have access to it as part of their contract for other clients and have a tiered rate card system.

REGIONAL SPECIFIC DEVELOPMENT OPPORTUNITIES

A common theme in the survey and conversations with respondents about regional studio development was ***sustainability, looking at the country as a whole*** and ***how will it all fit together***. One producer asked if it was about expanding the economic activity of regional centres or raising the capability of the sector as a whole.[52] The findings of this study show that it can be both.

The **New Zealand Screen Strategy 2030** recommended the development of a national screen infrastructure plan. The plan was to[53]:

> "…*take into account the need to* ***ensure sufficient quality studio*** *infrastructure is* ***in the right places to*** *capitalise* ***on existing and future workforce availability****, businesses and other key infrastructure.*

Regional demand for studios exists throughout New Zealand when assessed against the factors Investors should looked like for as outlined in Section 4.3.

Centres of activity that have reoccurred throughout this study are:

NORTH ISLAND

- Rotorua/Bay of Plenty

SOUTH ISLAND

- Christchurch
- Queenstown/Dunedin

For more detailed analysis please refer to the appendices.

ROTORUA

Rotorua has a growing reputation as a screen centre in New Zealand. Due to the concentration of Māori creative talent in Rotorua and Bay of Plenty, or who are based elsewhere but whakapapa back to the area, it is exhibiting growing potential to become a centre of excellence for Māori screen.

ACTIVITY LEVEL ALREADY HAPPENING IN THE REGION	***Moderate activity levels. Tier 1-line productions have already been based in Rotorua.*** ***Vegas production Season One was based in Rotorua.***
LOCATIONS THAT ARE EASILY ACCESSED IN THE REGION	*Geothermal and redwood forests. Beaches.* *Bay of Plenty includes Tauranga and Mt Maunganui*
REGIONAL GOVERNMENT SUPPORT	*Active film office.* *Studio development study*

[52] *Survey for NZTE Regional Study Demand in New Zealand*

[53] *New Zealand Screen Strategy 2030 pg 30*

CREATIVE ECONOMY IN THE REGION	*Steambox Collective based in Rotorua and very active as a collective and as individual production companies.*
CREW BASE IN THE REGION	*Strong crew development programmes put in place by film office, supported by regional economic development and government agencies for Vegas production. Continue to operate.* *Need to develop Creative HOD and technical HOD's. Already have these programmes in place.*
SCREEN EDUCATION IN THE REGION	*Developed programme specifically to train interns.*
BUSINESS SUPPLIERS AND SUPPORT	*Lacking specialist equipment. Rotorua is not a large centre but has main general suppliers and a supportive population.*
LIVEABILITY OF THE REGION	*Currently good accommodation available due to Covid 19. This may change as tourism comes back on stream.* *Region is relatively affordable with average house price of $617,000. Tauranga house prices are some of the fastest growing in the country. Availability is also a factor.*
FOCUS AND CLIENT MIX FOR THE STUDIO	*Has the potential to be a centre of Maori screen and have a centre of excellence for Maori screen.*

CHRISTCHURCH / CANTERBURY

ACTIVITY LEVEL ALREADY HAPPENING IN THE REGION	***Moderate levels. Highest level of NZOA funding and second highest activity as per NZFC and SPIG funding.*** ***Region has the most potential as a T1 base for line productions***
LOCATIONS THAT ARE EASILY ACCESSED IN THE REGION	*Opens up the South Island locations. Covers the West Coast, Mt Cook as part of the filming region*
REGIONAL GOVERNMENT SUPPORT	*Active film office.* *Screen Sector action plan in place* *Regional Government and council recognise screen as part of the rebuild of the city.*
CREATIVE ECONOMY IN THE REGION	*Key production companies Whitebait and Stretchy producing actively in Christchurch. Focus on animation and gaming companies in the city.*
CREW BASE IN THE REGION	*Christchurch has general crew in technical areas available who largely work on commercials and documentary. Film office has a register of crew and credits that is available. Line producers are based in the region.*
SCREEN EDUCATION IN THE REGION	*Has three well regarded training organisations including ARA NZ Broadcasting School, University of Canterbury, Illam School of Fine Arts and Yoobee.*
BUSINESS SUPPLIERS AND SUPPORT	*Full range of construction, engineering and support companies. It has some limitations in specialist screen equipment supplies*
LIVEABILITY OF THE REGION	*Good entertainment, accommodation and lifestyle amenities. International airport. Strong supply a good supply of new affordable housing, which is lacking in many of the other regional centres.*

FOCUS AND CLIENT MIX FOR THE STUDIO	*Animation and gaming, AR and VR already have a strong base in the city, it is suggested that a potential focus of a studio be expanded to other areas of digital production.*

DUNEDIN/QUEENSTOWN

ACTIVITY LEVEL ALREADY HAPPENING IN THE REGION	***Strong activity. Dunedin growing demand as a base for line production. Queenstown has two domestic productions moving into second and third series.***
LOCATIONS THAT ARE EASILY ACCESSED IN THE REGION	*Dunedin opens up the Southland locations which are under exposed. Queenstown is historically the location base for all New Zealand line productions.*
REGIONAL GOVERNMENT SUPPORT	*Active film offices that are now combined.* *Screen Sector in the regions are very engaged.* *Regional Government and council recognise screen as part of the economy post Covid.*
CREATIVE ECONOMY IN THE REGION	*Dunedin has key production companies with slates in natural history, drama and animation technology. Dunedin is the home of Centre of Digital Excellence (CODE)*
CREW BASE IN THE REGION	*Invested in a crew overview and co-ordinator for this project is still active. Looking at crew development programmes in conjunction with incoming line productions and domestic productions.*
SCREEN EDUCATION IN THE REGION	*Film office working on creating ties between incoming productions and polytechnics.*
BUSINESS SUPPLIERS AND SUPPORT	*Some screen specialist equipment but would need development.* *Dunedin as main centre is well served for general support.*
LIVEABILITY OF THE REGION	*Dunedin and Queenstown have good accommodation options and is well served for restaurants and lifestyle options. Accommodation in Queenstown can be an issue once tourism is back up post Covid 19.* *Queenstown and surrounding areas such as Wanaka have similar affordable housing constraints to Auckland and Wellington.*
FOCUS AND CLIENT MIX FOR THE STUDIO	*Queenstown – production support with wet weather cover* *Dunedin – studio development*

CONCLUSION

This study found that the future of the New Zealand screen sector is bright, however requires more co-ordination and deliberate actions by investors and the industry than in the past due to increased activity.

Considerations required in studio development in regional New Zealand include availability of land, affordable housing, transportation links and access to key and new locations.

Development must be seen in terms of building an ecosystem that is based on a thriving existing creative economy which includes gaming AR and VR. As expertise in screen merges with creative tech, most particularly gaming, talent should be developed and closely aligned with production pipelines. Education would be a key part of any regional studio developments.

Virtual Production is the future of screen production and a growing tool in the toolkit of international filmmakers. It will require specific training for creatives and crew to be able to use this new set of tools. The challenge is to enable these tools to be accessible by more local filmmakers at affordable rates. There is little demand currently for a permanent purpose-built Virtual Production void regionally. Demand has been concentrated on for studio space. However, to ensure that studios reman relevant and competitive for their target clients, it is recommended that capability to house a void is built into stages and that the equipment is able to be accessed easily through a supply arrangement. This is particularly important in regional New Zealand.

Studio complex development in the regions would support the activity and increased demand we are seeing in Auckland, Wellington and internationally. Revenue streams which are mixed and go beyond just building stages could help de-risk the investment case for investors. Regional studio development is about creating eco-systems in which screen business, crew, production companies and other creative and technology suppliers can thrive.

APPENDICES FOR STUDY OF DEMAND FOR REGIONAL STUDIO AND VIRTUAL PRODUCTION FACILITIES IN NEW ZEALAND

APPENDIX ONE

TIERS OF SCREEN PRODUCTION AND LINE PRODUCTION

TIER ONE (T1)	**INTERNATIONAL FEATURE FILM/MARQUEE TV SERIES STREAMING**	**NZ$100 million+**
TIER TWO (T2)	INTERNATIONAL FEATURE FILM/ TV SERIES STREAMING	NZ$15m - $90 million
TIER THREE (T3)	INTERNATIONAL FEATURE FILM INCLUDING TELE-FEATURES /INTERNATIONAL TV SERIES (STREAMING/CABLE) LONG RUNNING NZ TV SERIES	NZ$4m - $14 million
TIER FOUR (T4)	NZ DOMESTIC TV AND FEATURE FILM MARKET/COMMERCIAL MARKET/ONLINE CONTENT	NZ$1 – 3 million, less than $1 million

APPENDIX TWO

WHAT ARE THE FIVE QUESTIONS YOU ASK WHEN YOU ARE LOOKING WHERE TO BASE A PRODUCTION?

From the NZTE Regional Studio Demand Study 2021 was run by Felicity Letcher. Questions compiled by NZTE and NZFC.

LOCATION	**26**	**79%**
CREW	**21**	64%
SCRIPT	**19**	58%
STUDIO	**9**	27%
BUDGET	**9**	27%
EQUIPMENT	**5**	15%
ACCOMMODATION	**3**	12%
INCENTIVE	**3**	9%
HOUSING	**1**	3%

APPENDIX THREE

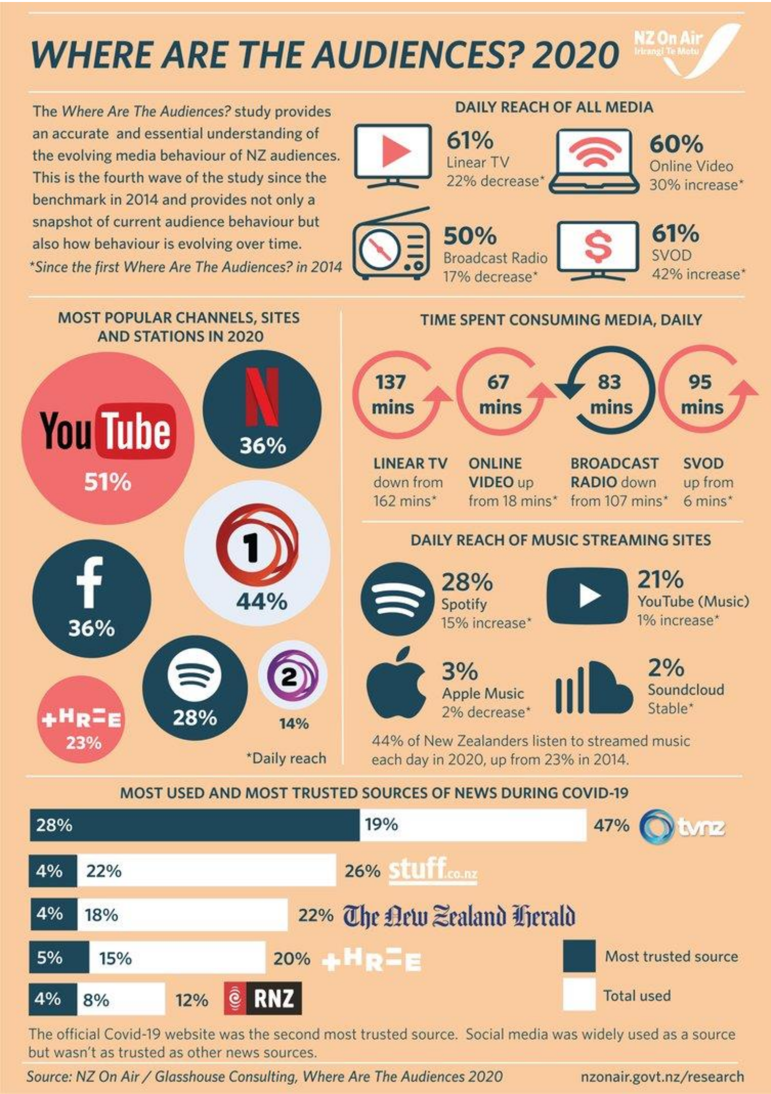
BREAKDOWN OF ALL SHOOTING IN REGIONS FUNDED BY NZFC AND SPIG 2015/2016 – 2020/2021

FINANCIAL YEAR	FORMAT	PRODUCTION BASE	SECONDARY LOCATION SHOOT	FUNDING STREAM
2019/20	FILM	AUCKLAND	CANTERBURY	INTSPIG
2015/16	FEATURE FILM	AUCKLAND	GISBORNE	NZSPIG
2019/20	TV (PILOT)	AUCKLAND	QUEENSTOWN	INTSPIG
2016/17	TV	AUCKLAND	QUEENSTOWN	INTSPIG
2019/20	TV	AUCKLAND	THAMES	INTSPIG
2017/18	TV	AUCKLAND	WAIKATO, QUEENSTOWN	INTSPIG
2020/2021	FILM	BOP/UREWERAS		DISCRETIONARY
2017/18	FEATURE FILM	CANTERBURY		NZSPIG
2016/17	FEATURE FILM	CANTERBURY		NZSPIG
2014/15	FEATURE FILM	CANTERBURY		NZSPIG
2017/18	FEATURE FILM	CANTERBURY		
2017/18	FILM	CANTERBURY/ OTAGO		INTSPIG
2016/17	FEATURE FILM	CENTRAL PLATEAU		NZSPIG
2019/20	TV SERIES	CHRISTCHURCH		NZSPIG
2018/19	TV SERIES	CHRISTCHURCH		NZSPIG
2017/18	FEATURE FILM	CHRISTCHURCH		NZSPIG
2017/18	FEATURE FILM	CHRISTCHURCH		DISCRETIONARY
	FILM	CHRISTCHURCH		DISCRETIONARY
2017/18	TV SERIES	DUNEDIN		NZSPIG
2017/18	TV SERIES	DUNEDIN		NZSPIG
2017/18	TV SERIES	DUNEDIN		NZSPIG
2016/17	TV SERIES	DUNEDIN		NZSPIG
2015/16	TV SERIES	DUNEDIN		NZSPIG
2014/15	TV SERIES	DUNEDIN		NZSPIG
2014/15	TV SERIES	DUNEDIN		NZSPIG
2014/15	TV SERIES	DUNEDIN		NZSPIG
2015/16	FILM	DUNEDIN		INTSPIG

2018/19	TV SERIES	DUNEDIN		NZSPIG
2020/2021	FILM	DUNEDIN		DISCRETIONARY
2019	DOCO	DUNEDIN		DISCRETIONARY
2018/19	FEATURE FILM	HAMILTON		NZSPIG/ DISCRETIONARY
2019	DRAMA	HAWKES BAY		DISCRETIONARY
2020/2021	FILM	KAPITI COAST		DISCRETIONARY
2019	FILM	NORTHLAND		DISCRETIONARY
2020/2021	FILM	NORTHLAND AND WAITANGI		DISCRETIONARY
2019/20	TV SERIES	OAMARU		NZSPIG
2020/2021	FILM	OTAGO		DISCRETIONARY
2017/18	FILM	QUEENSTOWN	QUEENSTOWN	INTSPIG
2017/18	FILM	QUEENSTOWN		INTSPIG
2017	DRAMA	QUEENSTOWN		DISCRETIONARY
2020/2021	FILM	ROTORUA		DISCRETIONARY
2020/2021	FILM	ROTORUA		DISCRETIONARY
2016/17	FEATURE FILM	SOUTH ISLAND		NZSPIG
2016/17	FEATURE FILM	SOUTH ISLAND		DISCRETIONARY
2018/19	TV SERIES	SOUTH ISLAND		NZSPIG
2019	DOCO	VARIOUS NORTH AND SOUTH ISLAND		DISCRETIONARY
2017	DOCO	VARIOUS NORTH AND SOUTH ISLAND		DISCRETIONARY
2016/17	FILM	WELLINGTON	ROTORUA	INTSPIG
2017/18	FILM	WELLINGTON	QUEENSTOWN	INTSPIG
2017/18	FILM	WELLINGTON	QUEENSTOWN	INTSPIG
2017/18	FILM	WELLINGTON	ROTORUA	INTSPIG

APPENDIX FOUR

NEW ZEALAND VIEWING HABITS



The ***NZ On Air study "Where are the Audiences? 2020***" found the following: [54]

- New Zealanders continue to spend more than two hours watching linear TV each day (137 minutes), with paying TV viewers continuing to be heavier viewers than free to air viewers
- However, time spent watching TV has declined for the first time (from 156 to 137 minutes), driven by a decline in time spent viewing on the SKY TV platform (from 92 to 78 minutes). Time spent viewing on a free to air platform is stable. The decline in time spent viewing on the SKYTV platform will be influenced by the absence of live sport during the survey period
- New Zealanders now watch Streaming Video on Demand(SVOD) for over 1.5 hours each day making it the second most popular media in terms of time spent
- The most popular channels in New Zealand include YouTube, Netflix and Facebook.

[54] NZOA and Glasshouse - Where are the Audiences 2020 report, pg. 14.

APPENDIX FIVE

DETAILED ASSESSMENT OF DIFFERENT REGIONS AGAINST INVESTOR CONSIDERATION FACTORS

OTHER REGIONAL AREA LOCATIONS OF INTEREST

There were several other areas that were mentioned during the course of the study. Some were mentioned as locations for up-coming shoots, and others were mentioned as potential sites of development.

NORTHLAND

6% of those who participated in the study mentioned Northland as a possible location for a studio.

Three productions mentioned that they were looking to film there in the next 12 months.

Great beaches and sea locations can be accessed up north. There is no film office or crew base. There is no established production space.

HUNTLY/HAMILTON

9% of respondents indicated Huntly or Hamilton would be a good place for a studio. The closeness to Auckland is part of this attraction – within an hour's drive of South Auckland and would open up South Auckland and Raglan to additional shooting in terms of location.

Huntly was mentioned as a popular filming location for TVCs. Hampton Downs has been used as a filming location on a number of locations. It has Te Rapa (an old air base), Cambridge, flat country and an old railway line.

ROTORUA – FILM BAY OF PLENTY

BOP ACTIVITY

SHOOTS	2019/2020	2020/2021
TV SERIES	2	3
FEATURE FILM	2	1
SHORT FILM	5	5

In 2019/20 the Bay of Plenty (BOP) recorded at least $4 million from screen productions spent in the district.

The most important production to date has been ***Vega***s, shot over 2020/2021 and co-produced by ***Greenstone TV, 10,000 Canoes*** and ***Steambox Collective***. It is set and filmed entirely on location in Rotorua. ***Vegas*** was used as a capacity building project to develop workforce and upskill existing capability.

BOP LOCATIONS

The BOP has a range of unique landscape not found anywhere else in the country including large areas of native bush, geothermal activity and Redwood forests. The BOP includes Tauranga and Whakatane.

Participants in the survey indicated the BOP has diverse looks that are attractive. It is also five hours from Auckland, making it accessible for those filming away from home to return to Auckland at weekends.

BOP REGIONAL GOVERNMENT SUPPORT

Regional government support has consolidated around screen over the past two years. This includes active support from the Provisional Growth Fund (PGF), Ministry of Social Development (MSD) and other agencies for programmes developed for *Vegas*. Screen is an area of growth and long-term employment potential in the region.

BOP CREATIVE ECONOMY

The major difference in the BOP has been the development of ***Steambox Collective*** – a group of Māori content creators who had been making content for Māori Television and Te Māngai Pāho and wished to increase budgets and look at drama creation. The collective has supported *Māorilands* as a film festival since its inception. It started the Rotorua Indigenous Film Festival (RIFF) in 2018 and will host the third festival in 2021. The focus is on telling indigenous stories and having a connection to the place a story is set, or tūrangawaewae.

Filmmakers as part of ***Steambox*** are also creating their own productions that are in the future pipeline for Rotorua and were co-producers of ***Vegas*** with *GreenstoneNZ* and *10,000 Canoes*. ***Steambox*** has a clear vision of the future and the growth of Māori storytellers that is part of the growing call for diverse stories and voices internationally. There is a strong commitment to the authentic voice and story that is a guiding light for an approach to Māori screen business development.

Filmmakers, such as Ainsley Gardner (director of *Cousins*), are committed to making productions that are based in Bay of Plenty and the East Coast. They believe that expansion is important, but not at the expense of creative and cultural goals which have the greatest priority.

BOP CREW BASE

There is a crew base in Rotorua and the BOP, many of whom work in Auckland. Like other areas, it is small and lacks depth. There is a list on the *Film Bay of Plenty* website [55]to provide a source for production companies.

Steambox Collective has developed its own skill base by working on each other's projects and productions. Key HOD positions will still need to be brought in for productions over the next couple of years while the crew develops. *Film Bay of Plenty* has piloted a successful programme to develop crew alongside productions, which is continuing.

BOP EDUCATION

Yoobee is based in Rotorua and has a strong history of developing animators that leave to work in Auckland companies.

Film Bay of Plenty developed an internship programme called *Tohea* – an *"Earn and Learn"* programme funded by MSD and MBIE as part of the *Vegas* programme. It was developed by Paula Jones, a past lecturer at South Seas Film School that took 20 rangatahi through a six-week course and then placed them under HOD mentorship on set.

The programme was well run and received by the HODs and was an integral part of the production mahi.[56] Interns have gone on to work on productions in Auckland. The PGF also supported hand-picked crew members who were already in the industry, and who felt could be upskilled into co-ordinator or next level rolls. This is extremely similar to a programme operating in the UK and is essential for developing crew, particularly in regional areas.

These schemes provide a blueprint for other regions to follow on how to develop a culture of skills development and training as part of hosting a large production.

BOP LIVEABILITY

As a traditional tourist centre, Rotorua has good accommodation, eating and lifestyle options for a film hub. It also has an affordable housing costs compared to Auckland and Wellington, although like many centres it is rising at a rate of 5%.

HAWKES BAY/GISBORNE

6% of respondents indicated Hawkes Bay would be a good place for a studio. The proximity to Gisborne and Bay of Plenty does make this understandable. Gisborne has a new animation centre of excellence ***TORO Studios***, which is developing a production strategy that includes training and tech product development.

[55] *https://filmbayofplenty.com*

[56]*https://vimeo.com/502852969?utm_source=Key+Industry+Stakeholders+%2A%2A&utm_campaign=f61b3b6781-Summer+Campaign+2019_COPY_01&utm_medium=email&utm_term=0_5724969719-f61b3b6781-224650013&mc_cid=f61b3b6781&mc_eid=5827885d1a*

Eastern Institute of Technology has the second to *Otago Polytechnic* in games and animation teaching. There are Creative HODs based in Hawkes Bay. Two productions showed interest in filming in Hawkes Bay in the next twelve months, and one in Gisborne.

CHRISTCHURCH

SCREEN CANTERBURYNZ

Christchurch has an established screen industry. Having been through an extensive rebuild after the earthquakes 10 years ago, Christchurch has emerged stronger and able to cope with a wide variety of film making.

The film office has been operating for two years. It recently initiated a screen action plan in consultation with the screen community.

38% of those surveyed said they felt there should definitely be a studio campus built in Christchurch, with 4% saying 'maybe'.

Christchurch receives the second highest amount of investment from NZ on Air in the country, and 9% of regional production filming funded by NZFC through SPIG and Discretionary funding.

CHCH RECENT ACTIVITY 2019 – Current

Based on permitted shoots

SHOOTS	2019/2020	2020/2021
PHOTO SHOOT/STILLS	4	
TVC	24	30
DOCUMENTARY	4	9
TV SERIES	22	10
FEATURE FILM		6
SHORT FILM	7	5
ANIMATION	5	

FUTURE PIPELINE:

There are three features looking to shoot in Canterbury in the 12 months.

As part of the survey for this study there was an indication of six producers and line producers looking to film in Canterbury/Christchurch over the next 12 months.

CHCH LOCATIONS

Screen CanterburyNZ covers Mount Cook and the West Coast region.

Christchurch also still has vacant land from the red zone which opens up filming possibilities.

Canterbury was the location and production supply base for *Mulan* and *A Wrinkle in Time*.

The line producers from both these projects commented:

> *"You can open up a lot of different locations if you are basing a production in Canterbury including Oamaru. It has suppliers, lots of accommodation and housing options for larger shoots."*
>
> *"It would be a fantastic place for a studio."*
>
> *"Christchurch is underutilised. I have shot there and am a big advocate for a studio being based there."*

CHCH REGIONAL GOVERNMENT SUPPORT

Screen CanterburyNZ is only two years old but extremely active. It has got major policy issues over the line in a short space of time including:

- Screen Action Plan with actions over the next three years to grow the sector
- Gaming Hui to develop a similar action plan
- Consideration of a cash regional screen incentive to develop the local industry and support productions to film in Canterbury
- Developed screen filming protocols
- Activated a change in local zoning which opens up land to be used to develop film studios
- Commitment from the council and mayor to making screen and the creative sector a key part of the city moving forward
- Christchurch also has key government offices and associated personnel who have been involved in screen sector development including MSD and NZTE
- Christchurch has produced an economic impact study of screen on the region[57]. They have an aim of doubling the activity in Canterbury from 2.4% to 5% of all national industry investment. For the gaming industry they wish to attract an additional 5% of new businesses
- Christchurch has the corporate offices of Ngāi Tahu and a strong central relationship with iwi.

CHCH CREATIVE ECONOMY

Christchurch is the home of ***Whitebait Productions*** which is a highly successful children and animation screen company. It operates a small studio which was the old TVNZ studio in Christchurch. They have an internship and trainee programme.

Kiri and Lou Claymation are based in Christchurch and has been developing animators during the course of their production.

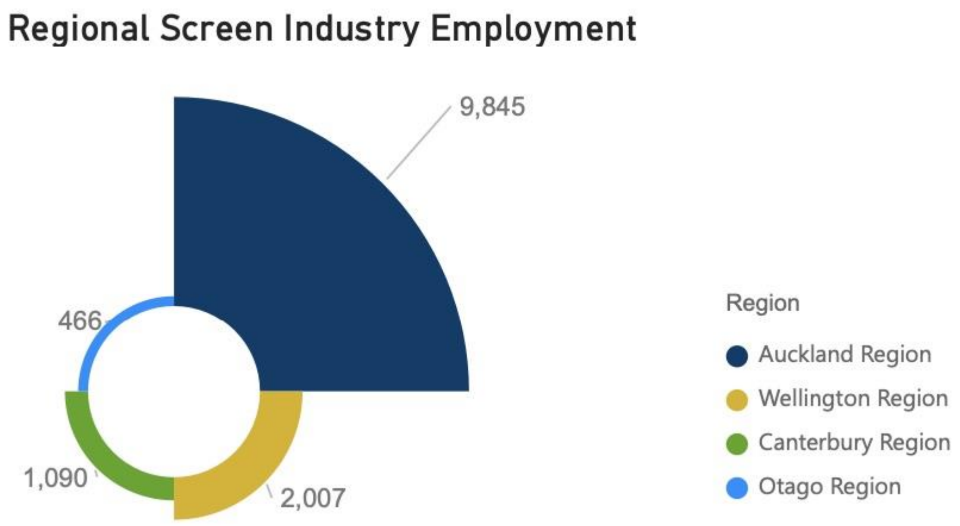
[57] *Economic Impact of Screen in Canterbury July 2019, compiled by David Dyason.*

Christchurch has an active and sizeable gaming community making up 10% of the national share[58] and are going through growth cycles. *Catalyst,* who was interviewed for this study, has a virtual based experience project for the West Coast which they are co-designing with *Weta Workshop* and has 50 full time employees, also using up to 100 contractors.

There are a number of Māori screen companies based in Christchurch including ***Maui Studios***.

CHCH CREW BASE

Christchurch has general crew in technical areas available who largely work on commercials and documentaries They often work with Queenstown and Dunedin crew on projects based in those cities. *Screen CanterburyNZ* has a strong handle on the crew base and credits. There is a lack of creative HODs. There are commercial line producers. All are interested in moving more into drama and are exploring the growing opportunities throughout the South Island.



[59]

A recent TVC project shot by ***Augusto*** *(*Auckland based) in Canterbury used all local crew and were very pleased with the result. They felt that they were not aware of the crew depth available in Canterbury and believe that if other productions knew, they would use more local crew rather than bringing them in from Auckland or Wellington.

They observed that producers were very stuck in their loops of trust, and that there was a lot to be gained (including grassroots local knowledge and problem-solving ability) that came with using crew from the area.

CHCH EDUCATION

Christchurch has a number of key education providers involved in screen including *ARA NZ School of Broadcasting, University of Canterbury* (UC) and *Yoobee*. The School of Broadcasting was seen by the Screen Sector Strategy facilitation group as being the gold

[58] *Economic Impact of Screen in Canterbury July 2019 pg.7*

[59] *Table from Screen CanterburyNZ 2021*

standard for screen sector training as the third year is a six month work placement, which results in a 89% employment rate. [60]

UC has a film programme as part of *Illam* UC and operates an AR and VR research facility as part of its Engineering School, which is one of the best in the country. *Yoobee* also operates animation courses in Christchurch.

This kind of work/learning combination is essential for workforce development. The addition of a studio campus in Christchurch would enable more students to stay in Christchurch once they have finished their education. It would provide more internship opportunities, particularly if a system like the *Columbia College* or *NZ School of Broadcasting* was created between the studio campus and learning institutions.

CHCH BUSINESS SUPPLIERS AND SUPPORT

As the second largest city in New Zealand, Christchurch has a full range of construction, engineering and support companies. It has some limitations in specialist screen equipment supplies but all suppliers have indicated that they are willing to create presence in the South Island and partnerships to address this if actively approached. After the earthquake rebuild, Christchurch has a reputation for resilience, tenacity and rebuild that is desirable in a studio city.

There are some post facilities in the city but none at the scale of those in Auckland and Wellington.

Christchurch has an international airport which will enable international crews to come straight into the city and production base. It is also a central transport hub for other South Island regions and has full 5G fibre capability.

CHCH LIVEABILITY

There is a full range of accommodation, restaurants and entertainment in the city and surrounding areas. After the quake it also now has a good supply of new affordable housing, which is lacking in many of the other regional centres and would make it very attractive to crew looking to relocate.

CHCH POTENTIAL FOCUS FOR A STUDIO

As animation and gaming, AR and VR already have a strong base in the city, it is suggested that a potential focus of a studio be expanded to other areas of digital production. This could include developing post production facilities, sound post, virtual production and new emerging technology tools and capability. Strong partnerships with North Island companies are essential for this.

It is also desirable as a multi-tier production centre but is the most suitable for a T1 development due to its size and ability to house larger productions in terms of accommodation and services.

DUNEDIN AND QUEENSTOWN

SCREEN OTAGO/SOUTHLAND

Dunedin and Queenstown run under a joint film office, Screen Otago/Southland. The Queenstown Film Office has been established for over ten years and has recently been brought under the Queenstown Lakes District Council.

Screen Southland has been operating for over five years.

Queenstown remains extremely popular as a location shooting base, and Dunedin is becoming more popular as a production base for line productions.

In the survey for this study, 43% of those surveyed felt that there should be a studio development in Dunedin, 53% of those felt there should be a studio and location support in Queenstown, and 11% discussed Cromwell or Clyde as another centre.

SOS RECENT ACTIVITY 2019 – Current

BASED ON PERMITTED SHOOTS	***2019/2020***	***2020/2021***
PRODUCTIONS FILMED TOTAL	183	91
SHOOT DAYS	663	341
BREAKDOWN:		
ONLINE/SOCIAL MEDIA	49	29
PHOTO SHOOT/STILLS	27	14
TVC	23	8
TV CONTENT	20	8
STUDENT FILM	13	6
DOCUMENTARY	17	7
CORPORATE VIDEO	8	8
TV SERIES	5	2
FEATURE FILM	4	4
SHORT FILM	5	3
WEBSERIES	2	2
OTHER/UNDEFINED	12	
GEOGRAPHIC BREAKDOWN OF PRODUCTIONS		
Queenstown Lakes	95	46
Dunedin	47	22

Southland	45	22
Central Otago	14	2
Waitaki	6	4

CURRENTLY FILMING:

- ONE LANE BRIDGE – NZ TV series – February to April 2021 - ***Queenstown based***
- UNDER THE VINES – NZ/Australian TV series – February to April 2021 - ***Clyde based***
- THE ROYAL TREATMENT – Int. feature – March to April 2021 - ***Dunedin based***

ACTIVE ENQUIRIES:

- INT. FEATURE – July 2021 (Location shoot)
- INT. FEATURE – July 2021
- INT. REALITY TV SERIES – July 2021 (expressed that a studio would be utilised if available)
- NZ FEATURE – Spring 2021
- NZ TV SERIES – Sept/Oct 2021
- NZ/Australian TV SERIES – Spring 2021
- INT. FEATURE – Feb/March 2022
- INT. TV PILOT – no dates specified
- NZ FEATURE – no dates specified
- INT. FEATURE – Indie – no dates specified – (expressed that a studio would be utilised if available)
- INT. FEATURE – Indie – no dates specified.

Dunedin has become increasingly popular as a place to base T3 and T4 productions over the last 24 months and includes shoots by Blumhouse and Netflix. They have been using found space and warehousing. Dunedin has a house nearby that is available for productions to base out of.

This survey found eight producers and line producers looking to base productions in Queenstown and Dunedin over the next twelve months.

SOS LOCATIONS

Queenstown is the number one location that productions think of when they come to New Zealand to film. It has the iconic scenery used in *Lord of the Rings, The Hobbit, Lion the Witch* and the *Wardrobe* and many others. Queenstown was the main unit base for *The Vertical Limit* in 1992 and a studio facility was built for large set pieces in the mountains. However, the studio was only meant to be temporary and was taken down after use – a massive loss to the growth of the industry in Queenstown and the South Island.

Since then, it has hosted many productions including *Lord of the Rings*, *Extreme Team* (pilot for ABC), *The Waterhorse* and more recently large second units on *Mission Impossible*, *Wolverine* and *Murder on the Orient Express*.

Up until the 2000s, 30% of all commercials were shot in Queenstown. This has dropped and so have large line productions over the past few years, due to a change in budget levels and product type (car and alcohol used to make up the majority of filming on location). It has the reputation as New Zealand's largest back lot. The lack of studios and the expense of having crews on locations has meant features and TV series have also only used Queenstown as a location based rather than a production base.

Dunedin was spoken of very positively throughout the survey. It was stated that there are a number of new types of locations that would be opened up by basing more filming in Dunedin. Dunedin is also used and mentioned for the period buildings that enable it to double for European and US cities such as Brooklyn, London and even Bangkok. It is a very easy city to film in and to shut down streets for location filming. It also has easy access to locations that are free of people and infrastructure and are quiet, which is key for filming needs.

SOS REGIONAL COUNCIL SUPPORT

Dunedin City Council, Southland and Queenstown District Lakes Council have illustrated a collaborative method of working together on screen issues that shows leadership for others in this space. Screen Otago/Southland film offices work seamlessly together to promote the development of screen. They:

- Have a creative industries plan and overview of Otago/Southland
- Have been looking at screen growth in Queenstown as part of a rebuild after Covid
- Have very active film offices in Dunedin and Queenstown
- Have plans for a studio development on council land and engagement with council departments around making council land available for development of brown fields projects
- Have close relationships with Ministry of Social Development looking at creating internships on incoming projects
- Have held several hui with industry with regards to developing the screen industry
- Have a grassroots funding for scripts to be written in Otago, which is starting to show success.

SOS CREATIVE ECONOMY

Activity in Dunedin's creative economy is high. There are established companies based in Dunedin with international reputations and markets. Dunedin also has a significant number of filmmakers who have based themselves in Otago and are growing their careers and productions based in Dunedin.

Natural History New Zealand (NHNZ) is based in Dunedin and operates a small studio that is often used by local companies. It has international markets and pipeline creating content. Their clients include National Geographic and Discovery.

Animation Research Limited is an animation company world leader in graphics for screen sports clients including golf, baseball, and the America's Cup.

Taylormade Productions has been in hiatus for a number of years but is starting up again and will be focusing on children and education content delivery.

R&R Productions run by Richard Bell and Rebecca Gibney has been based in Dunedin for the past three years and moved to the region from Australia. They are deeply committed to making drama in Dunedin and have a number of projects in development. They have interest from Australian networks in funding projects. They believe a studio is key to continuing the growth of the sector in Dunedin.

Wild Bear New Zealand has just been established in Dunedin by Craig Meade. It has a similar product output to **NHNZ**. Craig believes that Dunedin has a focus on national history which is similar to Bristol in the UK.

Dunedin is also home to CODE – the Centre of Digital Excellence which was established with the support of the Provincial Growth Fund to progress the expansion of growing the gaming industry in New Zealand. It aims to develop:

- New industry skills development and training pathways
- National and global partnerships that grow our digital capacity and knowledge
- Contestable funding for product development
- Higher growth in games sector employment
- More diversity in the sector – particularly for youth, Māori and women
- Growth in the number of gaming businesses and experts in Dunedin.[61]

This commitment to a growing creative sector adds weight to the business case for a studio campus in the city.

Queenstown has been primarily a tourist town with little creative industries that are based in the region. There are a couple of commercial companies such as ***Two Bearded Men*** who are in Queenstown. **Wrangler** (based in Wellington) has a home in Queenstown and sometimes shoot there on location.

E- Sports is one of the fastest growing screen sectors internationally. It is estimated to have a viewership of 286 million by 2024 and has some of the most prolific content creators in the country. Based in Auckland *Let's Play Live* broadcasts 7 days a week from a studio in the Sky Tower in Auckland.

E Sports companies during the course of this study expressed has an interest in Queenstown as a location base for finals. It would provide them with a beautiful setting for international streamed finals and give a draw card for those entering. There is potential for 7 broadcast finals a year that could be held in a studio with broadcasting capability. LED screen capability would also be required.

SOS CREW BASE

Dunedin City Council invested in a crew base overview. The co-ordinator for this project is still active in making sure productions know of the talent available in the Queenstown and Otago areas. The crew base is strong in documentary crew and production support crew with ***Natural History New Zealand*** and ***Taylormade*** based in Dunedin.

Crew base in Queenstown was strong, however with the lack of television commercials in the past 2 – 3 years even prior to Covid, many crews have moved from Queenstown to Auckland and Wellington to work on drama. There are many signs that they would come back if the work flow was better. Having drama experience on T1 productions will increase

[61] https://www.dunedinnz.com/CODE/what-is-code

the reputation and capability of crew from Queenstown which has suffered a perception amongst drama producers of not being appropriate for drama work.

Currently there are three projects shooting in Dunedin and Queenstown areas. The ratios of local crew to Auckland/Wellington crew is 60/40 or 70/30. This is very encouraging as it indicates that there is a good crew base in the South Island when producers consider the South Island as a whole region. Crew are coming from Christchurch, Dunedin and Queenstown to work on these projects.

There is a lack of creative HODs and in certain areas, such as locations, casting, and Assistant Directors in the South Island generally. The *One Lane Bridge* production team made a particular effort in 2020/2021 to get more local crew onto the production. This was very well received by the local industry.

In the profile of Dunedin's arts and culture sector, the study that employment in arts and culture was growing with an average growth rate of 1.2% over the past decade. It accounts for 3.9% of employment in Dunedin in 2019, up from 3.6% in 2009.

SOS EDUCATION

Dunedin is well served for creative and screen courses with 30.9% of students enrolled in Performing Arts courses. *University of Otago* (UO) also has a post graduate course for Natural History filmmaking in reflecting the needs of ***NHNZ***, based in Dunedin. The film office has been working to create ties between incoming productions and the polytechnics.

Southern Institute is based in Frankton, Queenstown but doesn't deliver screen courses – these are based in Invercargill. With the advent of the Review of Vocational Education, there is an opportunity to address this. As a key filming location, Queenstown is well suited to host screen courses in Otago/Southland and develop specific skill sets for filming in New Zealand locations – such as alpine location work.

BUSINESS SUPPLIERS AND SUPPORT

Dunedin has some screen specific equipment but it would need to be covered off by a studio campus as part of the value proposition. Queenstown has built up equipment, catering and other screen specific resourcing over the years of line production. If this could be congregated under one studio campus, it would be extremely effective.

Both have normal supply chains in construction, engineering and hospitality. Any studio development in the South Island should look at effectively working in together so that the South Island is seen as a whole in terms of region and value proposition.

SOS LIVEABILITY

Dunedin has a moderate level of accommodation options and is well served for restaurants and lifestyle options. Queenstown has very good accommodation options, restaurants and other lifestyle options for outside filming hours.

Queenstown and surrounding areas such as Wanaka have similar affordable housing constraints to Auckland and Wellington. The tug of war over greenfield sites to build housing versus industry is also felt there. Accommodation options as part of a greenfield site in Queenstown could be a good source of revenue if priced correctly and is able to be available when crews want to film.

Many respondents to the survey said that Queenstown was expensive to accommodate crew. It should also be noted that it is very expensive to buy property in the Queenstown Lakes District, making it unattractive for crew looking to make a permanent move there.

POTENTIAL FOCUS FOR A STUDIO

Many of the respondents to the survey felt that Queenstown would benefit from having strong location support for productions that were coming there to film on location. This could include a wet weather cover stage that could be used for smaller drama shoots, wet weather, E-Sports etc.

The emphasis could be on building up the ability to resource drama line productions and TVCs for production space that is currently having to use found warehouses and industrial units.

An interview with the production team from *One Lane Bridge* who will be looking to return to Queenstown for a third season in 2022, showed that they would like to be able to share a facility and the production gear such as tables, chairs, washing machines that would go with that. They felt that this would be a fantastic first step for any film office looking to attract more productions to an area. They felt a studio of 1500 m^2 would be well utilised by a range of productions in the Queenstown area to support location filming.

Part of any development in the Queenstown area should include moving Southern Institute screen courses to be based at the studio campus.

Dunedin is well placed for a full studio campus development. Placement of this should be considered so that it has the ability to grow over time on the same or into adjacent sites.

SOS CROMWELL, CLYDE, WANAKA

Other South Island locations mentioned during the course of the study were Wanaka, Cromwell and Clyde. All of these centres have provided bases in the past for features. They all provide excellent access to locations, however, all of them are relatively small and lack the accommodation, crew base, transport links and wider support structures to support a studio campus development. Nor do they currently provide a base for ongoing New Zealand productions or offshore line productions.

If studio campuses are being considered in these areas, the other key indicators of success would need to be addressed clearly in the business case for an investor to de-risk an investment. They should also have an identified IP content partner or partners to provide production activity as a backup to the business case.

RESOURCES AND STUDIES CITED

- SPI Olsberg – "New Zealand Film Studio Infrastructure Study" ,22 July 2020
- NZTE Regional Studio Demand Study 2021 was run by Felicity Letcher. (RSD 2021 Survey). Questions were compiled by NZTE and NZFC.
- https://www.creativebc.com/crbc-services/provincial-film-commission-services/in-production
- *Click Studios https://clickstudios.co.nz*.
- *Bruce Sheridan's submission to Screen Strategy 2030.*
- NZFC data on projects funded from 2014/2015 to 2020/2021 financial years
- Global Screen Production – The Impact of Film and Television Production on Economic Recovery from COVID-19 – Olsberg SPI
- New Zealand Film Studio Infrastructure Study - SPI Olsberg 22 July 2020
- https://www.businesswire.com/news/home/20200131005198/en/Global-Animation-VFX-Industry-Report-2020-2025-Demand-for-Animation-VFX-Content-to-Power-Immersive-Experiences-such-as-AR-VR-is-Growing-Exponentially---ResearchAndMarkets.com
- https://www.c21media.net/news/bossanova-picks-up-cjz-greenstone-content/?ss=Greenstone
- https://deadline.com/2021/03/hulu-new-zealand-transgender-drama-rurangi-streaming-1234708883/
- [1]https://www.stuff.co.nz/entertainment/tv-radio/300236175/kiri-and-lou-a-local-production-to-be-ridiculously-proud-of
- New Zealand Herald, TVNZ to splash cash on local content, 27 February 2021
- Auckland Film Studio Utilisation, Auckland Unlimited March 2021
- https://about.netflix.com/en/news/building-a-legacy-of-inclusion
- Premium Productions for International Audiences Fund Guideline for Applicants February 2021
- Covid Pandemic fuelling growth of film and TV studios in the UK, The Guardian, Mark Sweeney 7 November 2020
- https://www.scoop.co.nz/stories/AK2102/S00528/720000-regional-events-fund-for-dunedin.htm
- https://deadline.com/2012/06/warner-bros-officially-opens-u-k-studios-at-harry-potter-home-in-leavesden-284454/
- *The Future of Content Creation: Virtual Production, Deloitte 2021*
- Virtual Production - A Cinematographers' Conversation
- Special Presentation from Weta Digital https://www.youtube.com/watch?v=03XMTFjZaUY
- Breakdown Of All Shooting In Regions Funded By NZFC And Spig 2015/2016 – 2020/2021
- NZ On Air study "Where are the Audiences? 2020
- *https://filmbayofplenty.com*
- https://vimeo.com/502852969?utm_source=Key+Industry+Stakeholders+%2A%2A&utm_campaign=f61b3b6781-Summer+Campaign+2019_COPY_01&utm_medium=email&utm_term=0_5724969719-f61b3b6781-224650013&mc_cid=f61b3b6781&mc_eid=5827885d1a

- Economic Impact of Screen in Canterbury July 2019, compiled by David Dyason
- Screen CanterburyNZ 2021
- https://www.dunedinnz.com/CODE/what-is-code