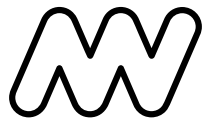




# Inspiring AUSTRALIA Victoria

## 4 Year Report (2018-2021)





## Inspiring Victoria Board

**Dr Amanda Caples** (Chair) - Lead Scientist, Department of Jobs, Precincts and Regions

**Ms Tamara Niznik** - Senior Manager, Questacon National Networks and Programs

**Mr Mike Flattley** - CEO, The Royal Society of Victoria

**Ms Kate Barnard Chair**, National Science Week Victoria Coordinating Committee

**Mr Jonathan Shearer** - General Manager, Scienceworks, Museum Victoria

**Ms Daniel Arifin** - Manager, Tech Schools, Department of Education and Training

**Mr Kade Mills** - Chair, Australian Citizen Science Association (Victoria Chapter), Victorian National Parks Association

**Julia Page** - CEO, VESKI

**Ms Angela Savage** - CEO, Public Libraries Victoria

**Ms Rena Singh** - Inspiring Australia Manager, Victoria, The Royal Society of Victoria

Front page image: RSV Staff with RSV President David Zerman

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We acknowledge the Traditional Owners from all  
First Nations communities across Victoria.

We acknowledge the process of truth telling.

Our First Scientists, the knowledge keepers and Custodians of Country,  
to you we convey our deep respect.

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## At a Glance

Science Week Major Events

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Community Science Engagement Program

Investment

Return on Investment

## Foreword



In December 2016, the Council of the Royal Society of Victoria acted on the recommendation of our Outreach and Partnerships Committee, boldly assigning a portion of our (diminishingly) small pool of capital to establish an expanded, community-focussed outreach and partnership program with the aim to build the capacity of Victorians to translate robust scientific work into beneficial social, commercial and environmental outcomes.

This investment presented a measured risk; for many years, our venerable yet under-resourced Society has been searching for ways to establish and sustain the impact of community science engagement across the State of Victoria, while our financial capacities have remained stubbornly meagre. Rather than accept this could simply never be done, we sought to invest in our future success and value to the people of Victoria through an "open science" initiative. We embarked in a spirit of partnership with others committed to the same goals, seeking opportunities to build future financial support on the strength of our anticipated, positive impact.

*.....*  
*The opportunity to leverage program funds under the Inspiring Australia program was on offer from the Commonwealth of Australia, contingent on attaining the support and partnership of the Victorian State Government; indeed, Victoria was the last remaining state to enter the national initiative. So, throughout 2017, we met with the freshly appointed Lead Scientist for Victoria, Dr Amanda Caples, an accomplished state government leader appointed within the (then) Department of Economic Development, Jobs, Transport and Resources. Seeking further alignment with Dr Caples' goals to establish regional hubs for Science, Technology, Engineering*

*and Mathematics, our cross-sector, intergovernmental partnership began with building partnerships across the science engagement ecosystem to populate a new Board for the Inspiring Victoria program and oversee its major initiatives, including National Science Week.*

*.....*  
 Here we are in late 2021, and I can look back on a remarkable journey, filled with dynamic partnerships, new programs, colourful events, interstate relationships, rapid learning curves and pandemic curveballs, and a scintillating network of community champions for STEM engagement and literacy across the State of Victoria. I could not be prouder of what we have achieved together, nor more grateful to the many colleagues and partners across academia, government, community and industry who have helped us to achieve it. Thank you all. It has been very challenging work, yet entirely commensurate with reward.

My thanks to Dr Caples and her team for their partnership and support for our endeavours, without which we could not even begin. I must convey particular gratitude to the Council of the Royal Society of Victoria for committing our organisation's small but essential capital investment, which has sustained what amounts to millions of dollars of value in STEM promotion, largely derived from the kind bequest of Dr Phillip Garth Law. Our equivalent institution in New South Wales is the University of Sydney, which operates on an annual budget of \$2.5 billion. The collective contributions of the

RSV with its government partners - \$1.3 million over four years - has returned a benefit of \$14.7 million to the State of Victoria by the most conservative measure. We have demonstrated what a small membership organisation with an expansive mission can achieve through an open partnership approach, brokering fruitful cross-organisation collaborations and, through a genuine community development and engagement agenda, building localised capacity to deliver on shared goals in regional and metropolitan Victoria alike. In these increasingly uncertain times, it is our aim to further align this excellent initiative with the major challenges of our era, enabling Victorians to adapt and prosper through fruitful relationships with our state's remarkable and generous pool of expertise. I hope you can participate and help support our continued efforts.

**Mike Flattley, CEO,  
The Royal Society of Victoria**

# Executive Summary

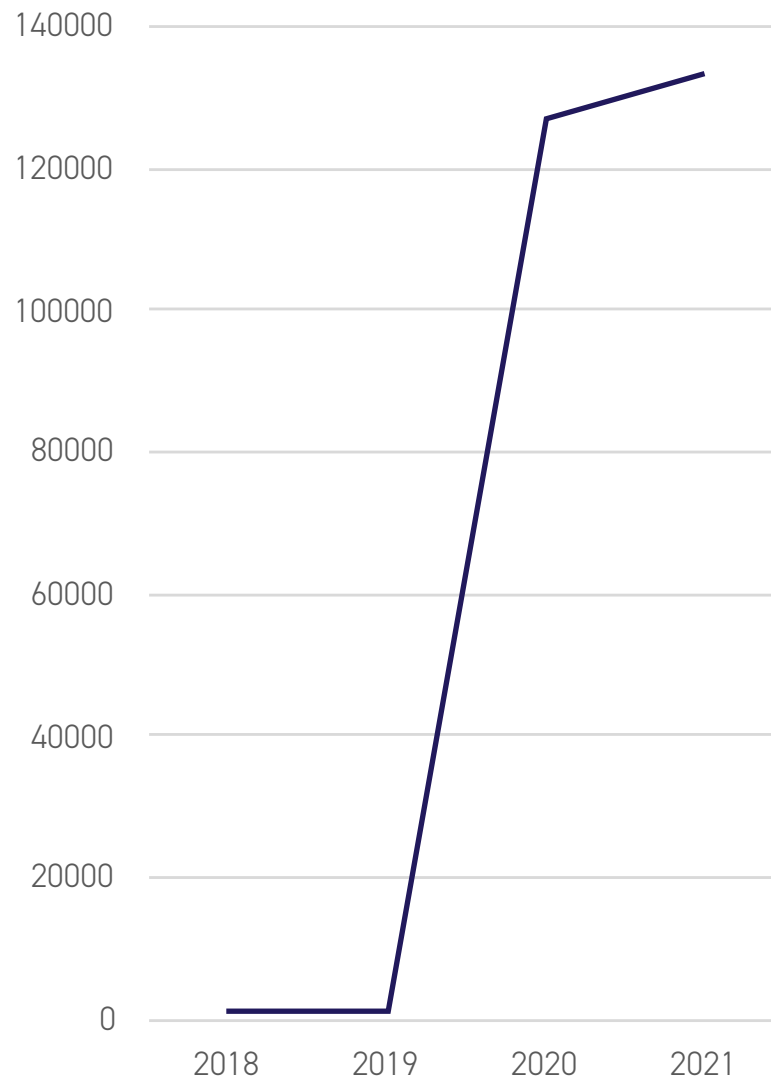
## Science Week Major Events

Our Major Events program experienced the sharpest schism from the impact of the pandemic. In the first two years, "Humans 2.0" and "Extrasensory" each attracted just over 1000 attendees, while our move to an online programmatic approach in 2020 ("Possible Impossibles") and 2021 ("ACCLIMATISE.") achieved a sustained audience reach of around 130,000 viewers. The quantitative picture is not reflective of the qualitative experience, however – a highly curated evening of talks, workshops and performances at Parliament House is obviously a very different offering to a series of online webinars, however

engaging they may be. Regardless, there is a clear picture of the levelling effect on participation and attendance offered by online platforms, particularly for regional and rural audiences joining events presented by metropolitan organisers.

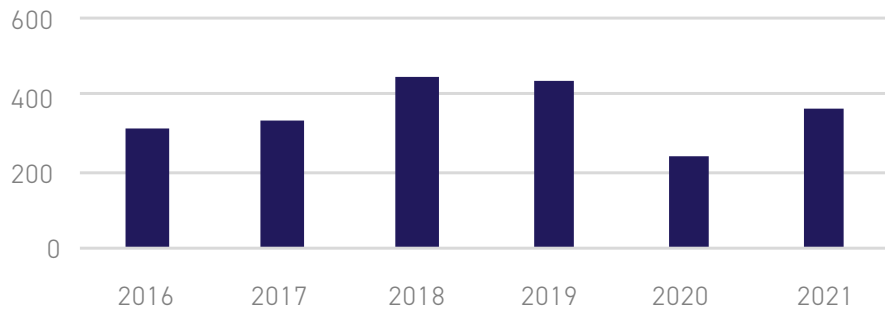
.....  
*Survey feedback remained positive across the four years, with a high proportion of audience members reporting they had both never attended a Science Week event before, nor studied or worked in a scientific field.*  
 .....

Major Event Audiences



## Science Week Statewide Program

National Science Week Event Numbers - Victoria



The number of events conducted statewide rose demonstrably from the outset of the RSV taking on management of National Science Week, reflecting the impact of offering community groups and networks access to small grants to leverage local staffing and other resources. The numbers took a hit in 2020 with the onset of the pandemic and Victoria's lockdown conditions, but rallied remarkably in 2021 despite the sustained

limitations on gathering and movement; investment in capacity building programs such as the Regional Science Champions project with Public Libraries Victoria and the Climate Change and Environment Program with Neighbourhood Houses Victoria have certainly helped to sustain regional engagement and participation. The total number of in-person attendees at Victorian grant-supported events over the four-year period is estimated at 20,500.

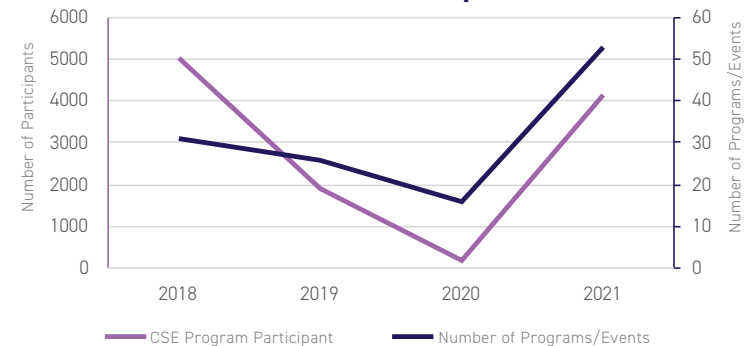
## Community Science Engagement Program

Highlights of the early years of the program include establishing partnerships with seven regional and suburban Victorian Tech Schools to act as Science and Innovation Hubs for the program, establishing the Victorian Chapter of the Australian Citizen Science Association, and a small grants program focused on engaging children and families in STEM activities. From 2019, a "Partnership Network" approach has been fostered, now focused on the 260 branches of Victorian public libraries and 400

community centres represented by Neighbourhood Houses Victoria.

The number of events took a steep dive in 2020 as community groups and grass roots organisations came to terms with methods for audience engagement during the pandemic. With a focus on broadcast partner events and skills development for regional librarians through the "Regional Science Champions" program, the numbers and participation rates rebounded in the second year of the pandemic.

Community Science Engagement Program - Events & Participants





## Impact

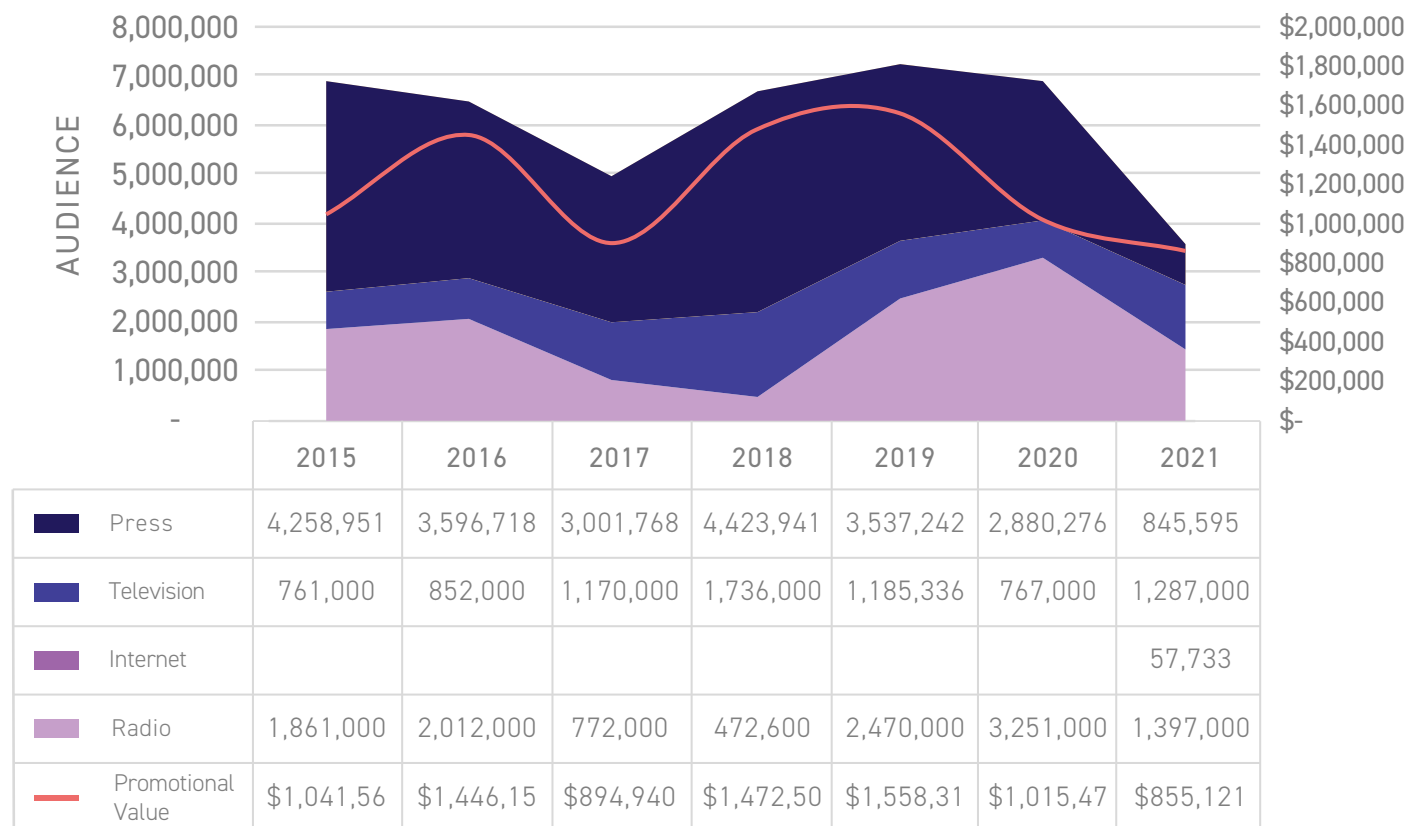
### Media and Audience Participation

The first two years of the program made a feature of our international and interstate guests; scientists from NASA were in particularly hot demand (most notably, Dr Jessie Christiansen and Dr Darlene Lim) by regional centres and corporates for event appearances, and regional and metropolitan media found many opportunities to feature their visits in the context of National Science Week. The Media and Audience Participation data illustrate something of this impact, along with the high number of statewide event holders sustained over 2018-19.

### Global Audiences

Internationally, the program has engaged a majority of Australasian online audiences (73.7% over five years), while sustaining interest from audiences in Northern America (12.4%) and Northern Europe (3.4%), with a notable increase in engagement from Southeast Asia, South America and Northern Africa ahead of the outbreak of the pandemic.

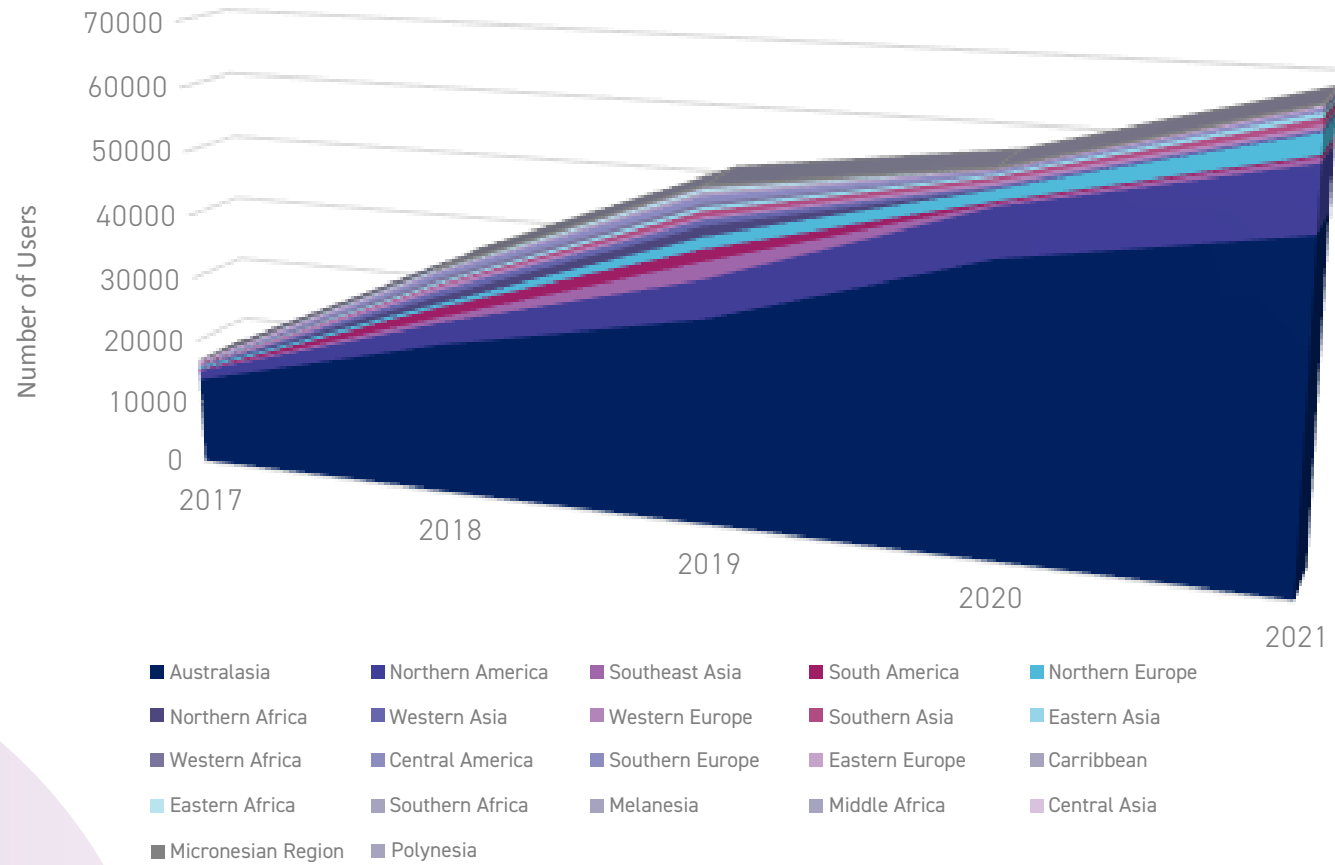
## National Science Week Media Reach (Victoria), 2015-2021



## Global Audiences

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Global Engagement by Subcontinent: All Websites



## Quality

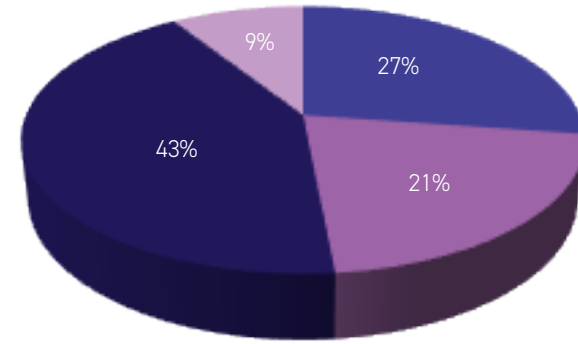
Generally, surveys of audience members and event holders have been limited to activities undertaken during National Science Week, with some qualitative feedback sought through the grant acquittal process for year-round activities under the Inspiring Victoria banner.

.....  
*Major events throughout the period maintained a high approval rating with audiences.*  
 .....

With libraries and community centres the main destination of year-round Community Science Engagement grant funds, it can be seen the demographic reached through programs supported have overwhelmingly been school-aged children and their families, with only 15% of activities targeting age groups over-18.

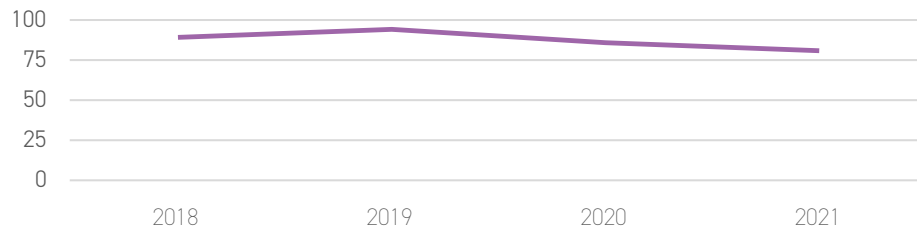
Meanwhile, participation based on equity group classification returned a very high rate for "Women and Girls," with "Regional, Rural or Remote" and "Culturally and Linguistically Diverse" communities also occupying a large proportion of event target audiences.

## Targeted Equity Groups - 2019 CSE Program

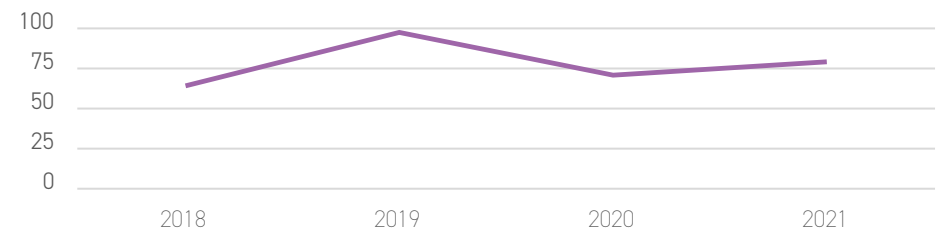


■ Regional, Rural or Remote ■ CALD ■ Women, Girls ■ Disability

**Would you recommend this activity/ event to friends or family?**

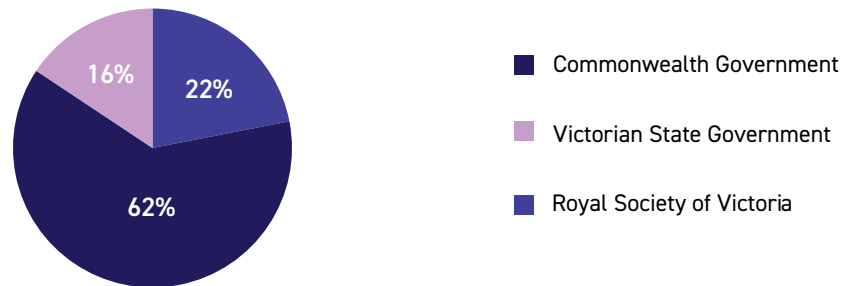


**Did you Learn Something New During this Activity?**

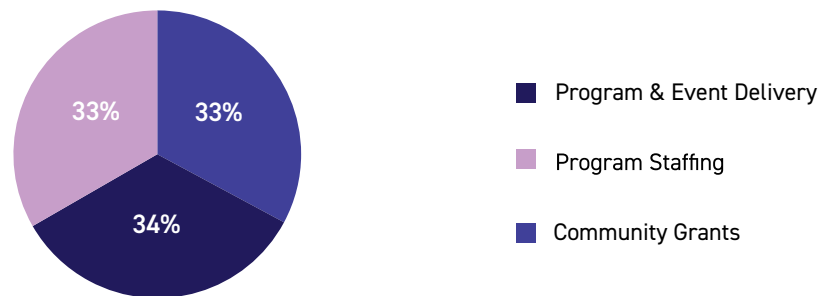


## Investment

Commonwealth funding represents almost two-thirds of program investment, while expenditure of program funds has followed an even three-way split between community grant-making, program delivery and staffing. The RSV and Victorian State Government contributions have mostly been allocated to staffing the program.



Inspiring Victoria - Funding Contributions, 2018-2022

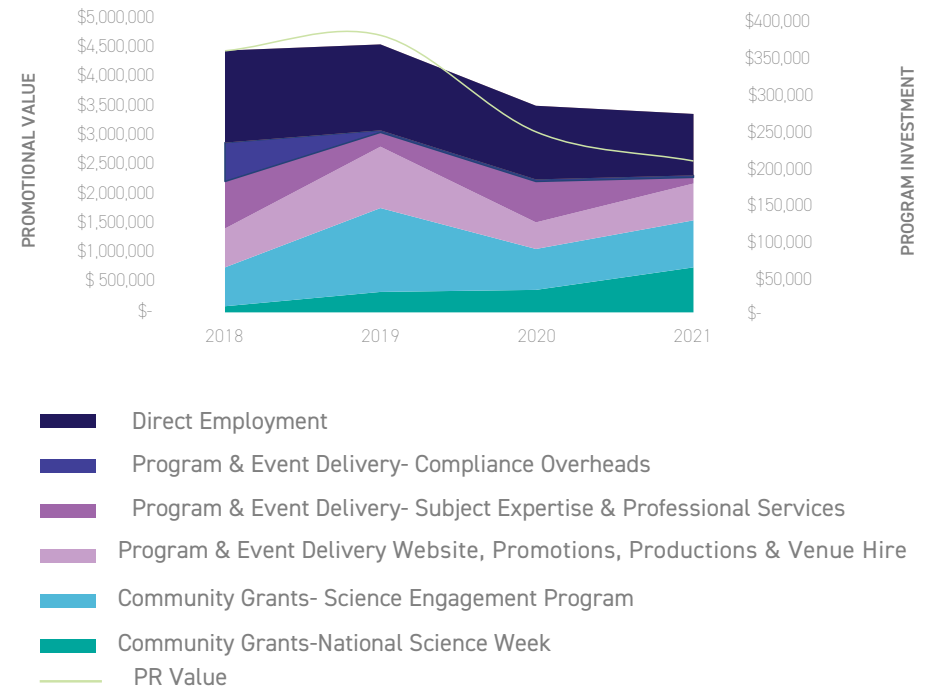


Inspiring Victoria - Funding Distributions, 2018-2022

## Return on Investment

Collective contributions of \$1,264,537 over four years has returned a benefit of \$14,704,245, representing a promotional return on total investment of 1063% based on traditional media impact alone.

### Promotional Value Correlating with Program Investment





Victoria's Lead Scientist, Dr Amanda Caples launches the Inspiring Victoria program at the RSV on 23 April 2018.



## Beginnings

2018 marked the Royal Society of Victoria's commencement as the initiating and managing organisation for the ambitious new **Inspiring Victoria** program, a state-wide science engagement program co-funded by the Commonwealth Department of Industry, Innovation and Science (now Industry, Science, Energy & Resources), the Victorian Department of Economic Development, Jobs and Training (now Jobs, Precincts and Regions), and the Royal Society of Victoria.

The new program represented the entry of the State of Victoria to the nationwide Inspiring Australia initiative, connecting with people nationwide to build an awareness and appreciation of science, share the excitement of scientific discovery, enhance the focus on STEM capability and skills, and improve science

communication skills. The Victorian program was launched by Victoria's Lead Scientist on 23 April, 2018 with a large gathering by an excited science engagement community. The Inspiring Victoria program required its own website to host partnership activities, constructed at <https://inspiringvictoria.org.au/>.

## The RSV Team

Meanwhile, the scale of the new program required specialised staff on board at the RSV. Joining the program's initiator and leader, RSV CEO **Mr Mike Flattley**, was talented ideator and event curator **Dr Renee Beale MRSV**, appointed to the new role of Victorian Science Week Lead from 2018 to 2019 and, from 2020, we welcomed community science engagement veteran **Ms Rena Singh** as Manager, Inspiring Victoria.

RSV Events Manager **Ms Malourie Crawford** lent valuable logistics support for major events, while Projects Officer **Ms Ann Woelk** was reappointed to a community engagement position through

to the end of 2019 to build and manage the new initiative's statewide small grants program. We were joined by immunology researcher, science writer and communicator **Ms Catriona Nguyen-Robertson MRSV** from 2018 to amplify our efforts through social media management, along with website and monthly newsletter publication of articles on the program's various events and initiatives to drive engagement with Victorian communities. Also joining us from 2020 was **Ms Meaghan Smith**, a talented communicator, physics graduate and software engineer, to assist with design and analysis of our reports and data trends.



The first meeting of the Inspiring Victoria Board on 13 December, 2017 at the Royal Society of Victoria. From left: Dr Nurin Veis (Museums Victoria), Ms Julie Petering (Office of the Lead Scientist), Ms Ann Woelk (RSV), Mr Mike Flattley (RSV), Dr Bobby Cerini (Questacon), Dr Amanda Caples (Department of Economic Development, Jobs, Training and Regions), Dr Peter Skilton (Victorian Coordinating Committee, National Science Week), Ms Anita-Marie Canals (Department of Education and Training). Not pictured: Ms Jenny Ruffly (Public Libraries Victoria)

## Governance

With the rapid growth of the program came a greater spread of committee functions and responsibilities, with the RSV's Outreach and Partnerships Committee undergoing some adjustment (rather than duplicate) the efforts of a new Inspiring Victoria Board (Chaired by Victoria's Lead Scientist, Dr Amanda Caples, with members from the RSV, Museums Victoria, CSIRO, ATSE, veski, Citizen Science Victoria, Public Libraries Victoria and the Department of Education's new Tech Schools Division) and the support of a revitalised Victorian Coordinating Committee for National Science Week

with representatives from universities, major public institutions, government, community and industry (Chaired first by Dr Peter Skilton, then Ms Kate Barnard).



RSV CEO,  
Mr Mike Flattley



Victorian Science  
Week Lead,  
Dr Renee Beale



Inspiring Victoria  
Manager,  
Ms Rena Singh



Events Manager,  
Ms Malourie  
Crawford



Community Engagement &  
Projects Officer,  
Ms Ann Woelk



Science Communications  
Officer, Ms Catriona  
Nguyen-Robertson



Science Communications  
Officer,  
Ms Meaghan Smith

# Victoria's National Science Week – 2018-2021

Launch: 10 August, 2018

## Three Years of Winter: The (Scientific) Story Behind Shelley's Frankenstein

A vibrant gathering at the **Magnet Gallery** space in the Docklands Art Collective precinct launched National Science Week in style, with a wonderful retrospective on gallery director **Michael Silver MRSV's** legacy of photographic work with Victorian research institutions and a truly dazzling presentation by **Dr James Driscoll MRSV**, linking the writing of Mary Shelley's Frankenstein in 1818 to the global impact on climate systems from the eruption of Mt Tambora in Indonesia, three years earlier! Earth science met global culture, with Jim's customary panache.

# The Main Events

Humans 2.0: 15 August, 2018

Humans 2.0 was held as the main public Science Week event in the Melbourne CBD at 524 Flinders Event Space on Wednesday 15 August, 6PM – 10PM. The event mixed speculative storytelling and immersive experiences and activities allowing audiences to explore the future of the human species, from wearables, prosthetics, robotics, AI, immersive environments, VR, to food, gardening, music, and questions about what it means to be human – and alive.

21 experts (mainly scientists, designers, and technologists) were engaged as storytellers and to construct immersive audience experiences. These were drawn from 3CR, Charcoal Lane, the Florey Institute for Neuroscience and Mental Health, Monash University, Murdoch Children's Research Institute, PHORIA, RMIT, Silverpond, Swinburne University, the University of Melbourne, Variant X, and VicHyper. PHORIA sponsored the event, creating a new immersive and interactive environment for the event at significantly reduced cost. Volunteers with an interest in science communication assisted with the event, drawn from the Murdoch Children's Research Institute, RMIT, the University of Melbourne, and the Royal Society of Victoria.



.....  
*1098 people registered to attend the Humans 2.0 event (and a waiting list of around 250 people was also used to refill numbers as any registrations were cancelled). Humans 2.0 also visited the Bendigo Discovery Science & Technology Centre in 2019, hosted by the Bendigo Tech School, following its success in Melbourne.*  
 .....

science-related events. There was considerable praise for the quality of the event, its content and its festive atmosphere; however, the constraints of a small CBD venue were plain, as the crowd noise sometimes overwhelmed speakers and there was little ability to partition different event elements from one another. While the event worked well within the constraints of the budget, it was clear we needed a larger and more flexible venue in 2019.

.....  
*Happily, we were approached by none other than the Parliament of Victoria to assist on this front!*  
 .....

The event scored highly on all feedback and demonstrated we had hit the target audience: 18 to 35 year olds, typically disengaged from science and



Interactive exhibits and speakers at Humans 2.0.



Jim versus the volcano: Dr James Driscoll (Monash Science) presents at the Victorian launch of National Science Week.

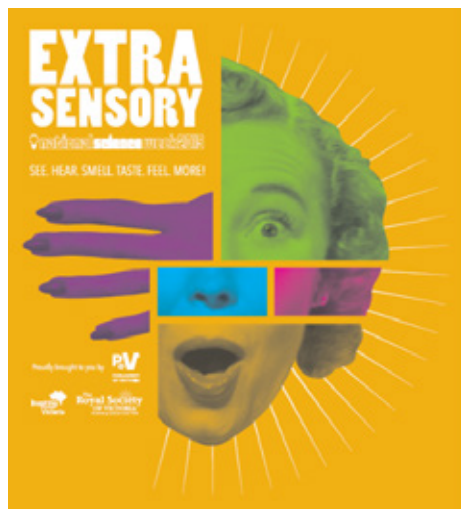


## 2018 Special Guests and Program Highlights



In 2018, we explored what's next for the human race at *Humans 2*, travelled back in time to the eruption of *Mt Tambora* as Dr James Driscoll linked the 1818 eruption to the inception of Shelley's *Frankenstein*, discovered *new exoplanets* with visiting NASA exoplanet hunters Dr Jessie Christiansen (pictured) and Dr Laurent Pueyo, who engaged with audiences at suburban and regional centres, and confronted the *neuroscience of racial prejudice* with Dr Larry Sherman at the Royal Society of Victoria.

## Extrasensory: 10 August, 2019



Extrasensory, alongside the launch event at Melbourne Museum, represented the major Melbourne event for National Science Week 2019. Held at Parliament House between 6PM and 10PM on Saturday night, Extrasensory explored the future of human perception through interactive experiments, exhibits, talks and storytelling, and live magic, comedy and music performances.

Extrasensory was built on two of humanity's main interests – ourselves, and our future. What it means for us, collectively, to make our way in and understand the world, where we are going and how science may take us there.

Our audiences were invited to:

- Seek knowledge in the music or stories presented, and conduct experiments for themselves and on themselves, to find the limits of their own perception and discover how these might be enhanced or augmented in the future.
- Consider how our senses work together to create our picture of the world, and how we are sometimes tricked by our senses so that this picture can in fact be quite different from reality.
- Contribute to scientific research to extend our understanding of human sensory capacities and inform future developments in sensory technologies.

Activities were spread across 13 different spaces over two floors in the Parliament building. Staff and volunteers from collaborating institutions ran and supervised each activity. Attendees were given a program of the event and map of Parliament upon entry and were free to explore the event at their own pace in the order that they wished. Parliament and Science Week staff were on hand in each space to assist with wayfinding and answering questions about each of the activities. Extrasensory brought together a diverse mix of people to present the event, from community organisations, universities, Victorian companies and startups to local science communication and music talent. Science Week volunteers and staff worked alongside Parliament of Victoria staff and volunteers to ensure a vibrant, educational, and successful evening was delivered.



**1004**  
event attendees

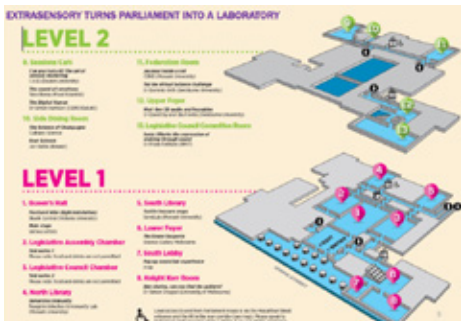


**200+**  
collaborators,  
staff and volunteers



**30+**  
presenters





Given this was the first time that Science Week in Victoria presented the main event on a Saturday evening, the quantity of collaborating partners and members of the public attending the event was impressive. We were honoured to have The Hon Dr Tien Kieu MLC attend and introduce one of our speakers (Dr Kate Selway) presenting in the Legislative Council Chamber.

239 event attendees took part in a survey upon exit, representing 24% of attendees. Of these, 62% were in the elusive 18-35 year old age bracket for science engagement. Only 24% had attended a Science Week event before, 34% worked or studied in a science field, while 97% learned something new and 94% would recommend the event to friends. Most important for our partners, 99% of respondents reported they had never visited Parliament House before. An excellent outcome for all!

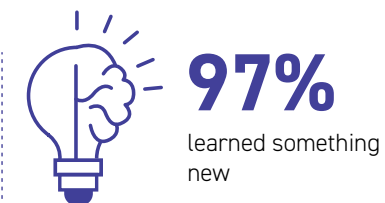
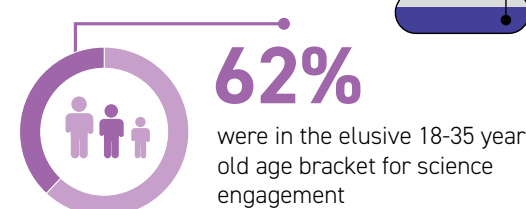
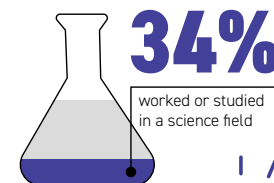
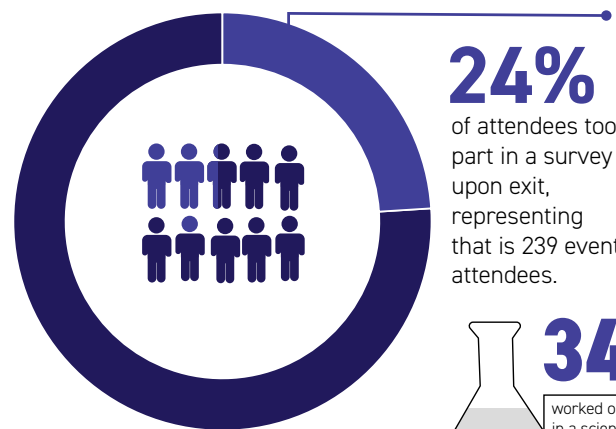
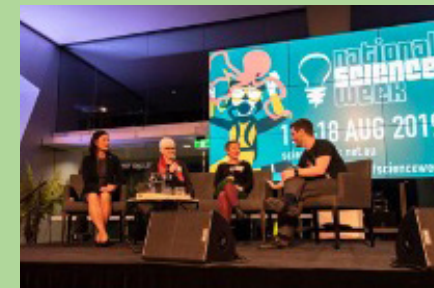
One international presenter (Dr Darlene Lim, NASA), and one interstate presenter (Dr Kate Selway, Macquarie University)



### 2019 Special Guests and Program Highlights

The 2019 Science Week launch at Melbourne Museum, "Science at the Extreme," captured the extremes of science in Antarctica, at the bottom of the ocean, and on Mars. Then, pushing the boundaries of reality, we encountered the world of the senses as part of the Extrasensory takeover of Parliament House. Our international

guest was NASA scientist Dr Darlene Lim, along with interstate guest Dr Kate Selway.



#### EXTRASENSORY PROGRAM

ALL EVENING (6 PM - 10 PM)	QUEEN'S HALL MAIN STAGE	LEGISLATIVE ASSEMBLY CHAMBER
<ul style="list-style-type: none"> <li>6:00-6:30 pm: Introduction to the program</li> <li>6:30-7:00 pm: Opening remarks</li> <li>7:00-7:30 pm: Keynote address by Dr Tien Kieu MLC</li> <li>7:30-8:00 pm: Panel discussion with Dr Darlene Lim and Dr Kate Selway</li> <li>8:00-8:30 pm: Performance by the Victorian Symphony Orchestra</li> <li>8:30-9:00 pm: Entertainment</li> <li>9:00-9:30 pm: Entertainment</li> <li>9:30-10:00 pm: Entertainment</li> <li>10:00-10:30 pm: Entertainment</li> <li>10:30-11:00 pm: Entertainment</li> <li>11:00-11:30 pm: Entertainment</li> <li>11:30-12:00 pm: Entertainment</li> </ul>	<ul style="list-style-type: none"> <li>6:00-6:30 pm: Introduction to the program</li> <li>6:30-7:00 pm: Opening remarks</li> <li>7:00-7:30 pm: Keynote address by Dr Tien Kieu MLC</li> <li>7:30-8:00 pm: Panel discussion with Dr Darlene Lim and Dr Kate Selway</li> <li>8:00-8:30 pm: Performance by the Victorian Symphony Orchestra</li> <li>8:30-9:00 pm: Entertainment</li> <li>9:00-9:30 pm: Entertainment</li> <li>9:30-10:00 pm: Entertainment</li> <li>10:00-10:30 pm: Entertainment</li> <li>10:30-11:00 pm: Entertainment</li> <li>11:00-11:30 pm: Entertainment</li> <li>11:30-12:00 pm: Entertainment</li> </ul>	<ul style="list-style-type: none"> <li>6:00-6:30 pm: Introduction to the program</li> <li>6:30-7:00 pm: Opening remarks</li> <li>7:00-7:30 pm: Keynote address by Dr Tien Kieu MLC</li> <li>7:30-8:00 pm: Panel discussion with Dr Darlene Lim and Dr Kate Selway</li> <li>8:00-8:30 pm: Performance by the Victorian Symphony Orchestra</li> <li>8:30-9:00 pm: Entertainment</li> <li>9:00-9:30 pm: Entertainment</li> <li>9:30-10:00 pm: Entertainment</li> <li>10:00-10:30 pm: Entertainment</li> <li>10:30-11:00 pm: Entertainment</li> <li>11:00-11:30 pm: Entertainment</li> <li>11:30-12:00 pm: Entertainment</li> </ul>
	SIDE DINING ROOM	LEGISLATIVE COUNCIL CHAMBER
	<ul style="list-style-type: none"> <li>6:00-6:30 pm: Introduction to the program</li> <li>6:30-7:00 pm: Opening remarks</li> <li>7:00-7:30 pm: Keynote address by Dr Tien Kieu MLC</li> <li>7:30-8:00 pm: Panel discussion with Dr Darlene Lim and Dr Kate Selway</li> <li>8:00-8:30 pm: Performance by the Victorian Symphony Orchestra</li> <li>8:30-9:00 pm: Entertainment</li> <li>9:00-9:30 pm: Entertainment</li> <li>9:30-10:00 pm: Entertainment</li> <li>10:00-10:30 pm: Entertainment</li> <li>10:30-11:00 pm: Entertainment</li> <li>11:00-11:30 pm: Entertainment</li> <li>11:30-12:00 pm: Entertainment</li> </ul>	<ul style="list-style-type: none"> <li>6:00-6:30 pm: Introduction to the program</li> <li>6:30-7:00 pm: Opening remarks</li> <li>7:00-7:30 pm: Keynote address by Dr Tien Kieu MLC</li> <li>7:30-8:00 pm: Panel discussion with Dr Darlene Lim and Dr Kate Selway</li> <li>8:00-8:30 pm: Performance by the Victorian Symphony Orchestra</li> <li>8:30-9:00 pm: Entertainment</li> <li>9:00-9:30 pm: Entertainment</li> <li>9:30-10:00 pm: Entertainment</li> <li>10:00-10:30 pm: Entertainment</li> <li>10:30-11:00 pm: Entertainment</li> <li>11:00-11:30 pm: Entertainment</li> <li>11:30-12:00 pm: Entertainment</li> </ul>



# Possible Impossibles – 15-23 August, 2020



Building on the success of Extrasensory, we had been planning to hold Possible Impossibles at Parliament House as a single, large event. However, due to COVID-19 restrictions, we were unable to proceed as planned.

So, to ensure that Victorian Science Week audiences continued to be engaged, the Possible Impossibles event was transformed into an online program of activities, stories, forums and interactive events, where audiences were invited to explore the frontiers of possibility, and ask: what's next for the human species?

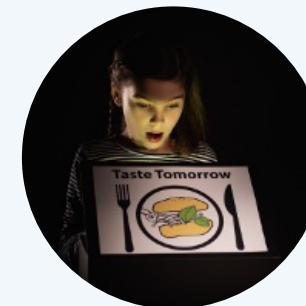
## Online activities



**ecosphere (PHORIA): Barwon Listening** (Sensing Sound Duo); **PI Bake off! : Rosetta Tomorrow Challenge** (Whittlesea Tech School); **Sensory Science Exhibition**(Monash and Swinburne, independent artists) **Possible Impossibles-Facial Recognition** (Gippsland Tech School); Making For All (Monash University); **Fake Out citizen science project** (University of Melbourne).

## Online events

**Brewing Futures** (Brick Lane Brewing); **A Taste of Tomorrow** tasting box reveal (La Trobe University); **Our Resilient Future** (RSV, scientists from various Universities) **Possible Impossible Forum** (Parliament of Victoria, RSV, scientists from Universities); **Seaweed Salon**( Science Gallery Melbourne, Seaweed Appreciation Society); **Body/ Insect/Machine** (Science Gallery Melbourne, Chunky Move).



Overall, the Possible Impossibles program series resulted in **127,000** individual views, attendees or visitors via the various online platforms as of September 2020. The programs garnered over 50 contributors from the STEM community, and significant web page visits before and after National Science Week. All of this was achieved through Melbourne's "stage four" pandemic lockdown conditions.

## 2020 Special Guests and Program Highlights



While the delivery of events shifted format in 2020, the livestreamed *Possible Impossibles* panel session

with the Parliament of Victoria, with Natasha Mitchell, Dr Kunzai Kanhutu, Professor Elizabeth Croft, Dr Gail Iles and Associate Professor Julie Mondon explored the role of different fields of science in shaping the future of our society. An online community forum titled *Our Resilient Future* brought audiences together with seven experts across diverse domains concerned with the health and viability of regional Victoria's agriculture and biodiversity in a deliberative process based upon scientific inputs. For an (at home) hands-on activity, tasting packs were delivered to households so that Victorians could learn about the science of beer for *Brewing Futures*.

## ACCLIMATISE. – 14-22 August, 2021

In the second year of major lockdown restrictions under the pandemic, we delivered the ACCLIMATISE major event as a live and online program of activities, stories, and events, where audiences were invited to explore the frontiers of climate science with a specific focus on Victoria. With new partnerships delivering participatory activities and events, a series of stories and Q&As with Victorian science experts, and a vigorous social media campaign, the ACCLIMATISE program attracted strong audience numbers, media and partner engagement. With lockdowns anticipated, most events and activities pivoted to their planned virtual format and had strong audience engagement.

Inspiring Victoria partnered with a selection of much-loved cultural institutions to deliver our main event program with specially curated content, presented in collaboration with Museums Victoria, the Royal Botanical Gardens Victoria, Zoos Victoria, Public Libraries Victoria, the Parliament of Victoria, the State Library of Victoria, Phillip Island Nature Parks, Neighbourhood Houses Victoria and the Royal Society of Victoria. More than 30 events were held across the state; interestingly, the largest

demographic by age was over 50 years of age (38%), although the 36-50 and 18-35 brackets were also well represented on parity (28% and 29% respectively). 64% of survey respondents had never attended a Science Week event before, and 78% indicated they would recommend the ACCLIMATISE program to others.

As of September 2021, the online program had reached **133,300** people, including a significant interstate audience.

### 2021 Special Guests and Program Highlights

The 2021 ACCLIMATISE highlights provide an overview of the incredible array of online events for another year of Science Week in lockdown. The series commenced with a remarkable panel discussion on Indigenous Food and Agriculture, featuring A/ Professor Bradley Moggridge, Uncle Dave Wandin, Auntie Kerrie Saunders, Luke Williams and Joshua Gilbert, and wrapped up with a livestreamed forum titled Collecting Insights, co-hosted by the Parliament of Victoria and featuring scholars from

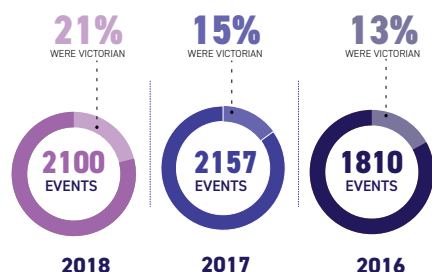
Museums Victoria, Zoos Victoria and the Royal Botanic Gardens Victoria, demonstrating how Victoria's natural history, zoological and botanical collections provide insights to our past and collective future



# Science Week Statewide

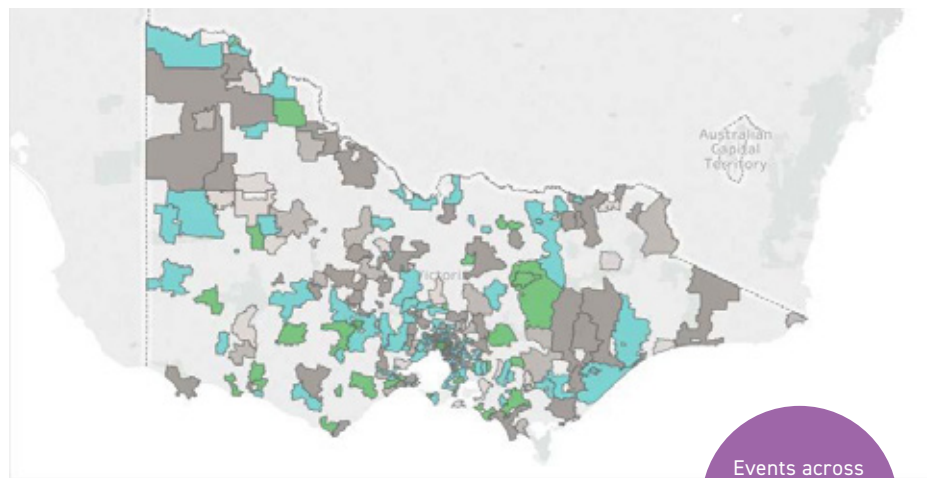
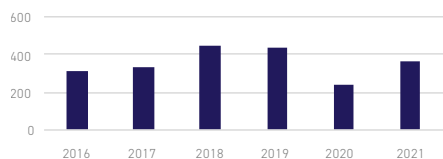
## Event Numbers

### REGISTERED EVENTS (National)



Victoria sustained ~435 registered events across the regions for National Science Week each year over 2018-19. This represented an increase of 109 events compared with 2017 (total of 326 events) and an increase of 127 events compared with 2016 (total of 308 events). Each year, ~55% of events were public, with the remainder private.

National Science Week Event Numbers - Victoria



Drop off  
 New in 2019  
 Continuing in 2019  
 Dropped off in 2019  
 Dropped off in 2018  
 Dropped off in 2017

Events across Victoria by postcode, 2017 - 2019

Nationally, Victoria represented 21% of National events each year, compared with 15% in 2017 and 17% in 2016.

Predictably, event numbers took a dive during the first two years of the global pandemic, down to 231 in 2020 but rallying in 2021 to 361 (51% public). Most were delivered online.

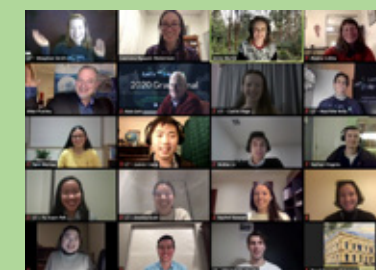
## Event Location Trends

Many postcode regions were engaged for the first time since data collection began in 2016. Typically, smaller regional and rural localities were the most inconsistent participants year on year, generally relying on one or two enterprising locals (generally teachers or librarians) to extend themselves.

Most events were held in and around Melbourne and its suburbs. Large gains in event numbers occurred in the Greater Melbourne metropolitan area in 2018 (more than 90 additional events compared with 2017).

With the move to online delivery during the pandemic, we became more reliant on social media metrics and survey results to locate our audiences. The pandemic hit regional organisers the hardest – events were overwhelmingly based in metropolitan Melbourne, although many reached regional Victoria, interstate and international audiences. Notably, the Regional Science Champions program, launched in 2020 and continued in 2021, delivered events across regional communities during Science Week (see Community Science Engagement Program and Program Impact sections for details).

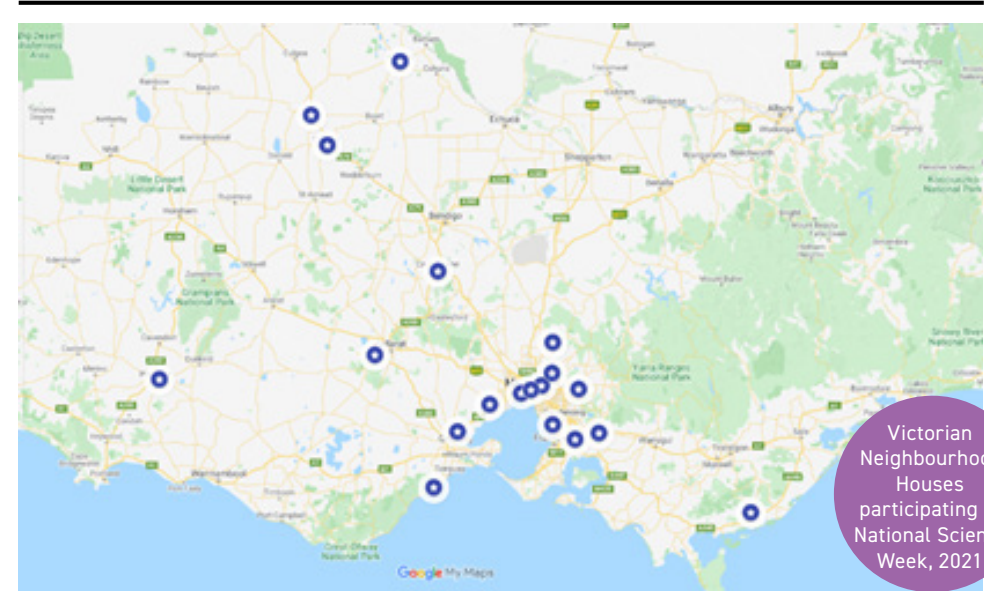
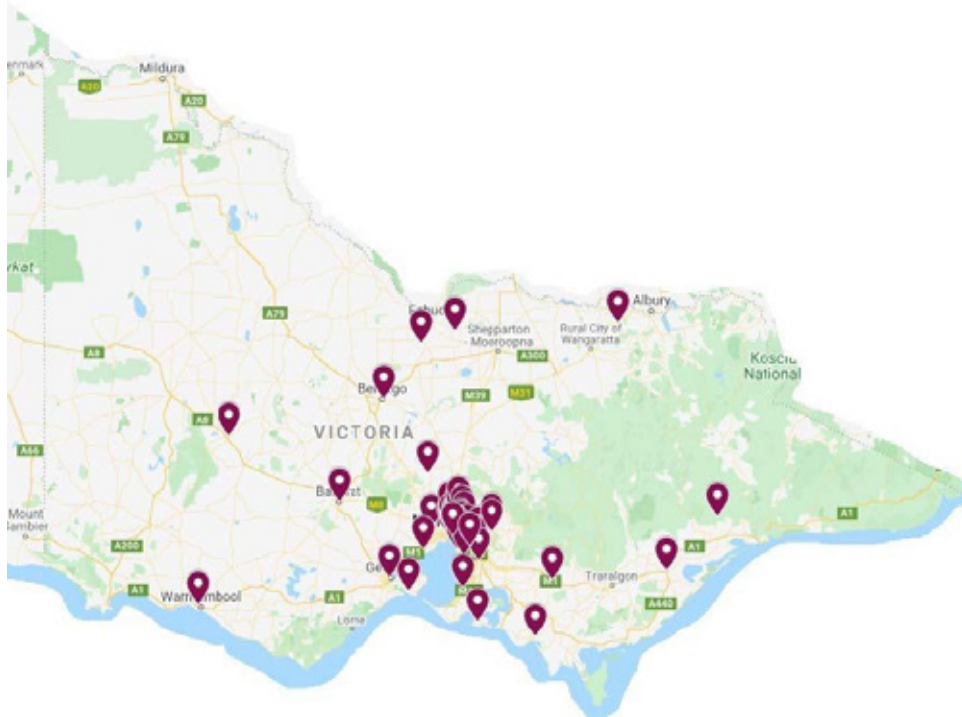
## Let's Torque Undergraduate Science Communication Competition: 2020 and 2021



The Let's Torque Grand Final is an intervarsity science communication competition, targeted at Victorian university undergraduates with the goal to provide training in presenting STEM content to a general audience, and networking opportunities with Australian science communicators and organisations.

Following three years of in-person events, the entire competition was held virtually in 2020 and 2021, with finalists presenting their professionally edited, pre-recorded presentations over a Facebook Livestream.

## Victorian Seed Grants



Successful grant applicants were from libraries, neighbourhood houses, community organisations, societies, schools, universities, and local government. Activities funded ranged from science shows, hands on science activities and workshops, exhibitions, competitions, public lectures and panel discussions, nature walks, building projections to live music performances. The topics presented represented a broad range of sciences from space science, chemistry, biology, parasitology, mathematics and coding, sustainability, and even acoustic ecology.

The inclusion of the community networks represented by Public Libraries Victoria and Neighbourhood Houses Victoria ensured strong representation across regional Victoria.

The total number of in-person attendees at Victorian Seed Grant-supported events over the four-year period is estimated at 20,500..

# Community Science Engagement Program

## Science and Innovation Hubs

Our initial focus was on establishing these Hubs as a means of convening regional communities around the program's goals and content, offering a platform for speakers, exhibitors and workshop presenters across the State of Victoria. With the 10 new Tech Schools freshly launched by the Victorian Government, themselves "hubs" for dozens of secondary schools in their regions, "teaching in" specialised programs in applied science and technology, we seized the opportunity to partner and align to craft a broader community-focused science engagement program with select Schools. We also developed a storytelling platform to share the great outreach work the Tech Schools have undertaken since their establishment.

**Ballarat Tech School, Bendigo Tech School and Gippsland Tech School** offered a regional focus, convening a number of community talks and kids' science activities. These included a presentation by Dr Stephen Poropat on Australian Dinosaurs, a talk on sustainable cities by Dr Amy Hahs and a visit from crusading War on Waste champion Craig Reucassel. Bendigo became an important locus for the National Science Week program as a regional platform for the 'Humans 2.0' repeat event in 2019.

Two 'sister' Tech Schools took up the mantle of peri-urban hub for communities to the outer north of Melbourne: Whittlesea Tech School and Banyule-Nillumbik Tech School. A feature was a booked-out talk by cultural astronomer Dr Duane Hamacher with Gamilaroi woman and Monash University astrophysics student Ms Krystal Napoli on Australian Indigenous Astronomy at St Monica's College Epping, plus talks by PM's Prize for Science winner, Dr Jenny Graves on "Future Humans: Sex and Evolution" at Eltham High School. A vibrant citizen science activity was brought together with the Campfires and Science group in South Morang at Plenty Gorge, where group leaders taught participants to test local streams and soils for DNA evidence of local native species. From 2019, the **Lilydale Tech School** joined the peri-urban initiative with a further range of citizen science and Science Week activities.

The **Monash Tech School** acted as our metropolitan community hub, again hosting a capacity crowd for Duane and Krystal's talk on Indigenous Astronomy and enabling a number of fantastic science talks through the Monash public library's network. A citizen science activity with Melbourne Water conducted a waterbug blitz at nearby Scotchman's Creek.

**Dr Duane Hamacher**  
4 October at 12:45 · 🌐

After two years in Melbourne, our work on Indigenous Astronomy seemed rather stagnant. Not much was happening, collaborations were in short supply, and there seemed to be a lull in public interest. That changed with a talk I gave at the Royal Society of Victoria early this year. Interest in the public lecture was beyond belief. 16,000 people expressed interest in attending on Facebook alone, and the waiting list was over 500.

Since then, things have taken off and we are involved in several national projects - ranging from community engagement, to developing content and resources for the national curriculum, to designing commemorative coins and museum exhibitions!

The profiles of Aboriginal astrophysics students like Monash's Krystal De Napoli (who co-presented with me) have skyrocketed, and we have firmly established ourselves in Melbourne. All thanks to the RSV, who did this nice little write-up about it.



RSV.ORG.AU

**The Crossroads: Aboriginal knowledge & modern science - The Royal Society of Victoria**

Dr Duane W. Hamacher's work seeks to understand how the first Australians developed...

👍❤️👤 You, Dylan Brady, Sophia Frentz and 56 others

5 Comments 9 shares

**STEMPOWERED**  
great women in STEM

### STEMpowered

The RSV was approached in 2018 by Her Place Women's Museum Australia to assist with gathering content for a new exhibition, featuring leading women in Science, Technology,

Engineering and Mathematics (STEM). Through our work with the Tech Schools and the Department of Education, we brokered a partnership that blossomed into a travelling exhibition titled *STEMpowered*, collecting stories of local, female STEM heroes to include with the show as it journeyed around each of the ten Victorian Tech Schools. The Department developed teaching resources and lesson plans to complement the exhibition.

## Citizen Science Victoria

Citizen science was a big focus of the 2018 startup effort, with the RSV driving the formation of a Victorian Chapter of the Australian Citizen Science Association (ACSA). ACSA convenes a community of practice and interest around citizen science initiatives to share information and experience in managing programs, volunteers, data and alignment with the Australian school curriculum.

The Victorian Chapter's inaugural committee (David Mossop of the Victorian EPA, Yvonne Cabuang of Melbourne Water, Kade Mills of the VNPA, Dr Linden Ashcroft of the Bureau of Meteorology, Dr Ken Walker of Museums Victoria, Mike Flattley of the Royal Society of Victoria) planned events, defined the scope of the Chapter's work and convened Chapter

gatherings convened at the Arthur Rylah Institute for Environmental Research, the Bureau of Meteorology and the Royal Society of Victoria. Following formal elections, the Chapter is now running independently, with the Chair (currently Kade Mills) maintaining a place on the Inspiring Victoria program's governing Board.



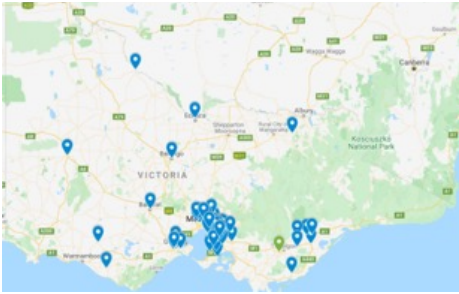
## Kids' Science Clubs

Throughout the period a number of kids' science clubs were supported, either directly through Inspiring Victoria grants or through auspicing third-party grants through the Royal Society of Victoria. These included:

- Carlton CoderDojo
- Altona North CoderDojo
- Curious Kids @ Bendigo Discovery Science & Technology Centre
- Little Bang and Hack It clubs at City of Ballarat libraries
- Introduction to Technology afterschool program at Gippsland Tech School (Morwell)
- Code Clubs at Yarra Plenty Regional Libraries



Hearing from Libby Hillman (right), Executive Officer of the Geography Teachers Association of Victoria at the second ACSA Victoria Chapter meeting, held at the Bureau of Meteorology. RSV CEO Mike Flattley (left) acted as the new Chapter's inaugural Secretary in 2018.

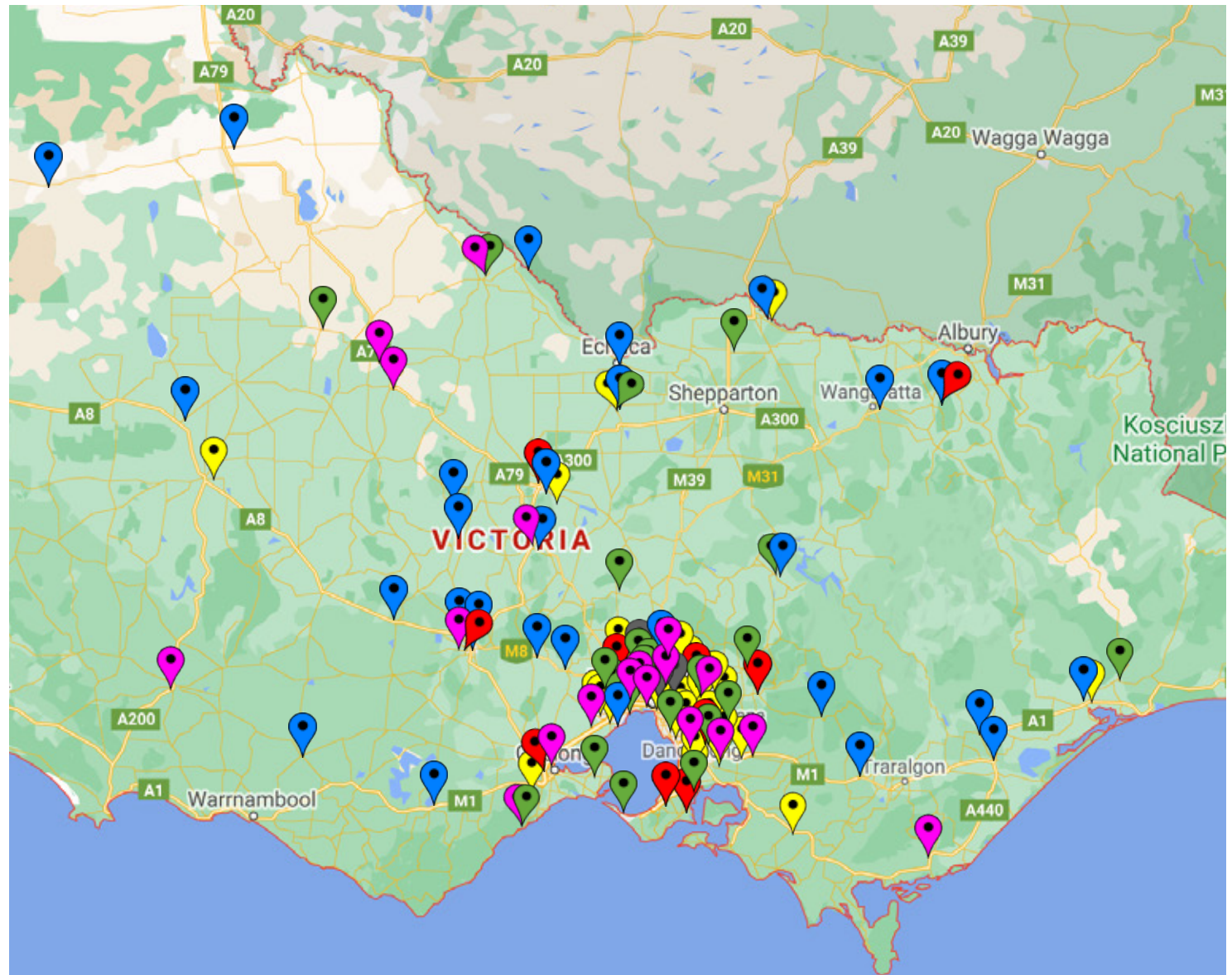


## The Partnership Network

From 2019, the Program consolidated its efforts in statewide engagement through adopting a partnership approach with the established knowledge networks in place via Public Libraries Victoria, adding 260 public libraries to the 10 Tech Schools, offering small grants throughout the year to stimulate local initiatives. We started out with engagement from 26 library branches in 2019 (pictured right). The network was joined by Neighbourhood Houses Victoria from 2021, bringing more than 400 community centres into the statewide program, resourced with small grants as represented in the following map.

### Legend

- Neighbourhood House Grant recipients
- Neighbourhood Houses x Thriving Futures
- Seed grant recipients
- School grant recipients
- Regional Science Champions (libraries)
- Inspiring Victoria-supported programs





Over the course of 2018 - 2019, the Partnership Network's speakers' program was largely constructed from past presentations to the Royal Society of Victoria, reflecting a tested appreciation for which talks would be most likely to have a broad public appeal. Traditional Aboriginal knowledge systems and their intersection with contemporary scientific practices were a hot favourite, along with Australian dinosaur fossil finds, regional volcanic activity, human genetics and sustainable urban design drawing on technological advancements and ecological knowledge.

.....  
 However, survey feedback from our audiences over 2018 and 2019 revealed a particular interest in coming to terms with anticipated climate change impacts, environmental management and sustainability initiatives, which consequently focused much of our efforts over 2020 and 2021.  
 .....

## Climate Change and Environment Program

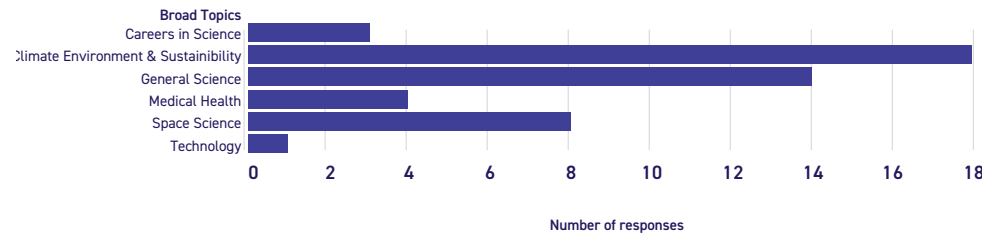
In addition to their diverse network of more than 400 community centres across Victoria, Neighbourhood Houses Victoria is part of a national network of 1000 Neighbourhood Houses across Australia. Our partnership was founded on a project established in collaboration with the Melbourne Museum titled **'The Climate Change and Environment Program,'** providing climate science literacy through a range of initiatives including our *'Thriving Futures'* local focus groups.

These engaged 30 Neighbourhood Houses over the course of 2021.

Additionally, the project has developed a research expert demonstration and public resources platform on the *Museums Victoria website* to grow its access. The web pages were designed to provide an invitation to participate. They state the position we are facing in unambiguous terms and lead people through a range of ways to take positive actions and get involved.

Topics of interest: 2018 surveys identified Climate, Environment and Sustainability emerged as a clear standout for Victorian communities seeking information from scientists for future events.

### Topics of Interest



This Program comprised:

### Colourful conversation starters

This knitted visualisation of the changing climate aims to prompt conversations, community understanding and action.



- A series of online workshops titled 'Thriving Future Workshop Series,' delivered via Zoom to accommodate regional participation (and pandemic conditions).
- A set of resources for use during and after the 'Thriving Future Course' subsequently made available online to the broader community
- "Expert connections forums" with Museums Victoria experts on themes relating to science, ecology and climate change
- A project Digital Hub hosted on the Museums Victoria website



Urban ecologist Dr Amy Hahs presented to Ballarat and Bendigo audiences on "Green, Healthy Cities for the Future" in 2018.

### STEM Catalyst

The Partnership Network program supported small projects such as *STEM Catalyst* at Faulkner Neighbourhood House, an Islamic women's group building their capacity to deliver electronics training and ecological literacy to local children.



## Regional Science Champions - Building STEM Engagement Capacity



At the outset of the Inspiring Victoria initiative, we sought to stimulate regional STEM engagement activities through our small grants programs. By 2020, we had extended our efforts to overtly build capacity for ongoing delivery through a community of practice in the network represented by Public Libraries Victoria. A joint initiative between Inspiring Victoria, Scienceworks and Public Libraries Victoria, the Regional Science Champions project delivered Professional Development training for staff at regional public libraries in hosting community-focused STEM activities.

Over 2020 and 2021, participating librarians received training to deliver their own STEM activities to their local communities during Science Week and throughout the year, with a particular focus on how to deliver online programs.

- How to set up online events
- Science experiment ideas for online STEM shows
- How to engage local Science Ambassadors
- Networking and building partnerships
- Public STEM resources for audience participation from home
- How to maximise social media impact
- Evaluating project success

The training was delivered by Scienceworks Programs Manager, Kate Barnard, and participating librarians receive ongoing support from Scienceworks to maintain delivery of online STEM programs to local communities.



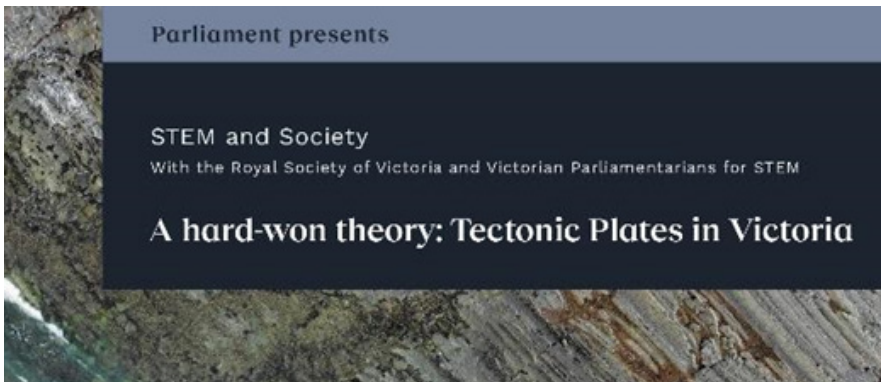
### Inspiring Victoria

Nine librarians from six libraries across Victoria became the first Regional Science Champions in early 2021. There are now 43 librarians across 21 regional Victorian shires who have participated in a training program to build skills and networks for producing science programs for their communities. We look forward to placing many more pins on this map!



## STEM & Society

Our broadcast initiatives continue to grow and provide an opportunity for regional audiences and, indeed, national audiences to access science content through a 'civic' lens – understanding the basis of scientific work in order to make better use of it, as a function of citizenship. Through our evolving partnership established in 2019 with the community engagement and broadcast team at the **Parliament of Victoria**, we have provided four webinars in 2021, engaging a broad audience base through our combined social media reach.



### Tectonic Plates in Victoria

To demonstrate the difficult process of how modern scientists arrive at a consensus to accept a hypothesis as a theory, the RSV convened a panel of eminent geologists with the Parliament of Victoria and Year 10 students from Northcote High School's "Big History" class to take us through one of the major revelations of the past century: *tectonic plate theory*.



## Profiles in Science

Since 2018, we have leveraged the Royal Society of Victoria's monthly program of public lectures for statewide delivery, at the time of report publication having produced 156 videos of scientists, scholars and experts sharing their work for distribution online via social media and YouTube, and many more through Facebook livestreaming. Due to the restrictions on movement and gathering imposed under Victoria's repeated pandemic lockdown measures over 2020 and 2021, these were necessarily in the form of online webinars and livestreamed talks. We professionally filmed these presentations to maximise audience engagement, uploading video and producing articles discussing key points to populate our websites and share content via social media post-event:



### ***The Anthropocene: Where on Earth are we Going?***

featuring **Professor Will Steffen**  
(41,200 views on YouTube)

The term "Anthropocene" was first used 20 years ago to describe a new epoch of geological time, coinciding with the start of the Industrial Revolution around 1750. It indicates a transition out of the Holocene into a new age – the age of human impact. This term has incited great debate amongst the scientific community as, in order for a new geologic epoch to be accepted, we need to demonstrate our impact on the rock strata around and beneath us. This was achieved in 2019.

#### **Article:**

<https://rsv.org.au/anthropocene-now/>



### ***Coastal Resilience – How Landforms Cope with Changing Waves and Rising Seas***

featuring **Professor David Kennedy**  
(20,300 views on YouTube)

Our sea levels are rising. Understanding the dynamics of the beach envelope and its overlap with human infrastructure is fundamental for effective coastal management. Dr David Kennedy studies the dynamic adaptation of beaches in the past to inform how we can manage them into the future. While NSW beaches have been studied for decades, but we are only just starting to understand the behaviours of Victoria's beaches and their underlying geology.

#### **Article:**

<https://rsv.org.au/coastal-resilience/>



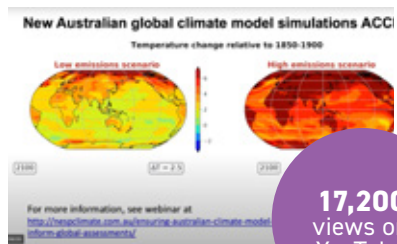
### ***Foodprint Melbourne: Building the Resilience of Melbourne's Food System***

featuring **Dr Rachel Carey**  
(17,900 views on YouTube)

Supply disruptions affect food prices, most affecting people on low incomes and those already food insecure. Fewer than 5% of Australian adults eat the recommended number of vegetable servings daily; but if everyone did, we would not have enough. The Foodprint Melbourne project seeks to increase equitable access to fresh, healthy foods and promote sustainable practices in production..

#### **Article:**

<https://rsv.org.au/resilient-food-supply/>



17,200 views on YouTube

***Climate Change: Managing the Unavoidable, Avoiding the Unmanageable***

featuring **Professor David Karoly**

Professor David Karoly here demonstrates how a 2 degree (Celsius) rise in global temperatures above pre-industrial levels is now essentially unavoidable, yet manageable through high-priority adaptation measures, and explores the extent to which we can still mitigate a further, catastrophic rise in global temperatures by the end of the century through an urgent and much faster transition to a zero carbon economy, with Australia accepting its leadership responsibilities as a developed nation under the UNFCCC.

**Article:**

<https://rsv.org.au/deciding-the-future/>



8,600 views on YouTube

***You and Your Racist Brain: the Neuroscience of Prejudice***

featuring **Dr Larry Sherman**

Professor David Karoly here demonstrates how a 2 degree (Celsius) rise in global temperatures above pre-industrial levels is now essentially unavoidable, yet manageable through high-priority adaptation measures, and explores the extent to which we can still mitigate a further, catastrophic rise in global temperatures by the end of the century through an urgent and much faster transition to a zero carbon economy, with Australia accepting its leadership responsibilities as a developed nation under the UNFCCC.

**Article:**

<https://rsv.org.au/the-neuroscience-of-racism/>



8,200 views on YouTube

***Australian Indigenous Astronomy: 65,000 Years of Science***

featuring **Dr Duane Hamacher**

Aboriginal and Torres Strait Islander people developed a number of practical ways to observe the Sun, Moon, stars, and planets to inform navigation, calendars, predict weather, and inform Law and social structure. This knowledge contains a significant scientific component, which is encoded in oral traditions and material culture.

**Article:**

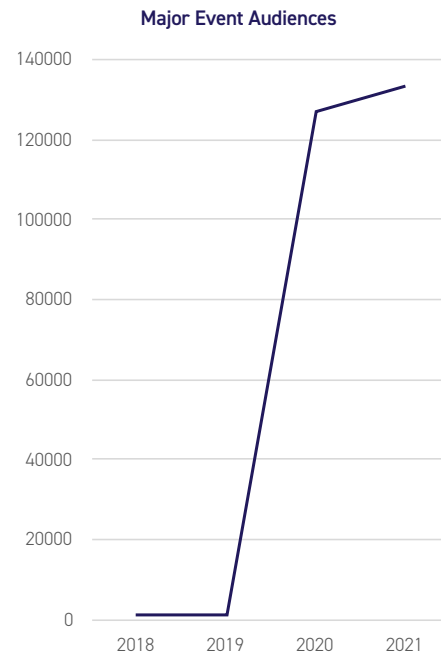
<https://rsv.org.au/science-and-orality/>

# Program Impact – Analysis

It is a challenge to chart meaningful trends in audience engagement over a period in which half of the program was delivered during the COVID-19 pandemic. As such, we must take the 2018-19 years as a separate outcome to the 2020-21 years, while charting the trends together, acknowledging that opportunities for engagement became more scarce and modes of delivery needed to change dramatically to accommodate restrictions on movement and gathering in the State of Victoria, particularly in the City of Melbourne, where 75% of the State's population resides and which has endured some of the longest and most limiting series of lockdowns and curfews on the planet at this point in managing the global pandemic.

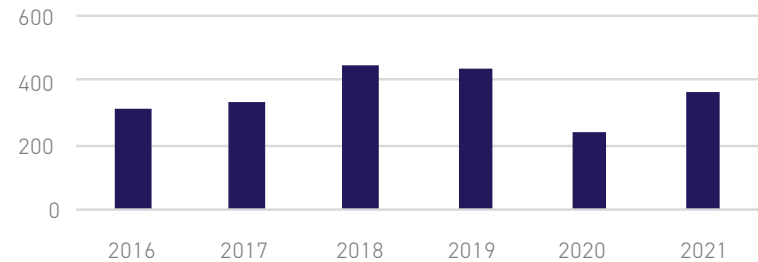
## Quantity

### Science Week Major Events



Our Major Events program experienced the sharpest schism from the impact of the pandemic. In the first two years, "Humans 2.0" and "Extrasensory" each attracted just over 1000 attendees, while our move to an online programmatic approach in 2020 ("Possible Impossibles") and 2021 ("ACCLIMATISE.") achieved a sustained audience reach of around 130,000 viewers. The quantitative picture is not reflective of the qualitative experience, however – a highly curated evening of talks, workshops and performances at Parliament House is

### National Science Week Event Numbers - Victoria

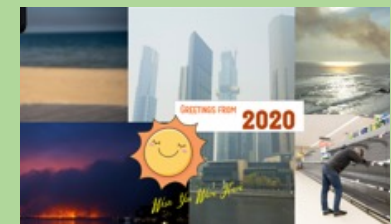


obviously a very different offering to a series of online webinars, however engaging they may be. Regardless, there is a clear picture of the levelling effect on participation and attendance offered by online platforms, particularly for regional and rural audiences joining events presented by metropolitan organisers.

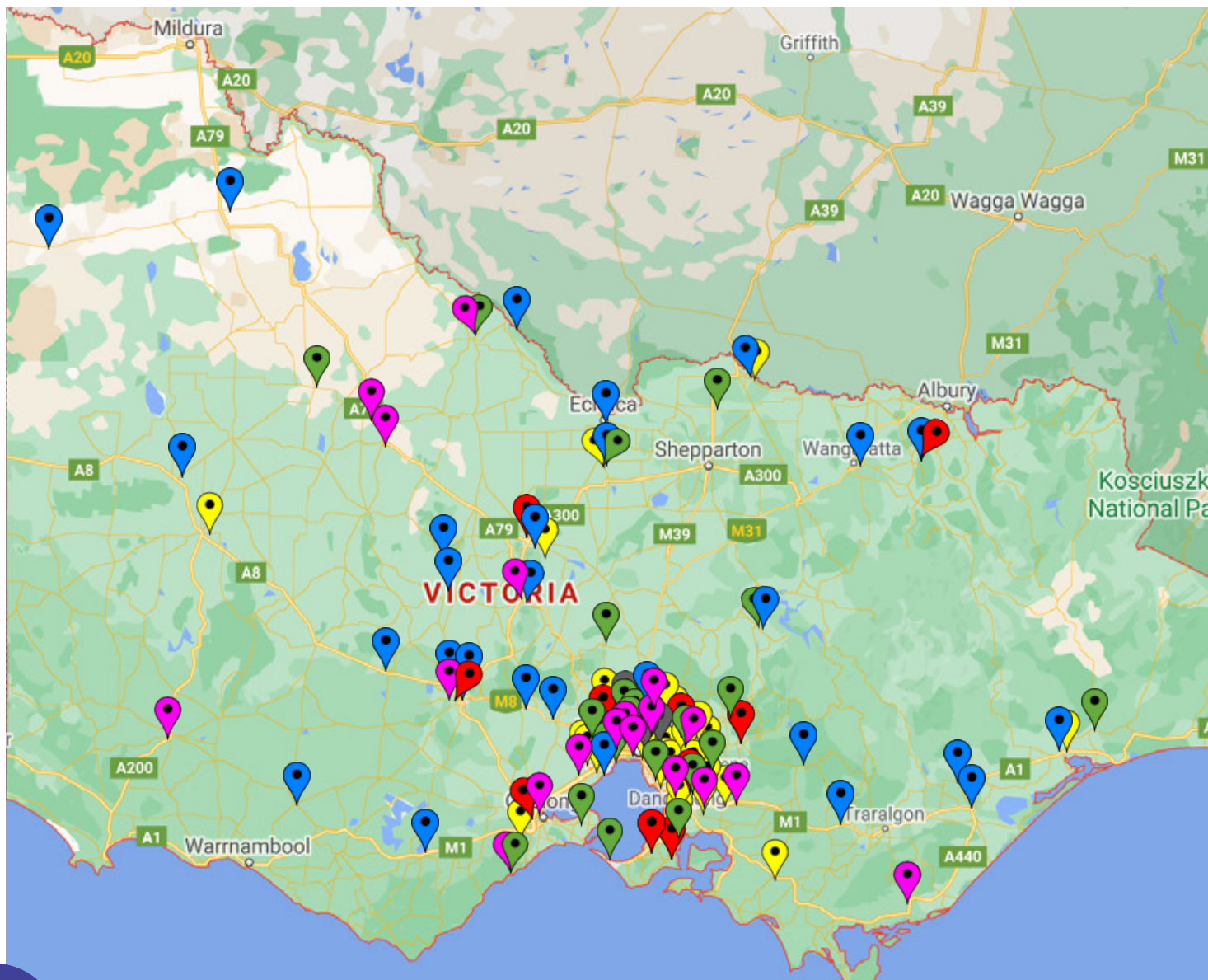
The number of events conducted statewide rose demonstrably from the outset of the RSV taking on management of National Science Week, reflecting the impact of offering community groups and networks access to small grants to leverage local staffing and other resources. The numbers took a hit in 2020 with the onset of the pandemic and Victoria's lockdown conditions, but rallied remarkably in 2021 despite the sustained limitations on gathering and movement; investment in capacity building programs such as the Regional Science Champions project with Public Libraries Victoria and the Climate Change and Environment Program with Neighbourhood Houses Victoria have certainly helped to sustain regional engagement and participation.

The total number of in-person attendees at Victorian grant-supported events over the four-year period is estimated at 20,500.

### Postcards from a Pandemic



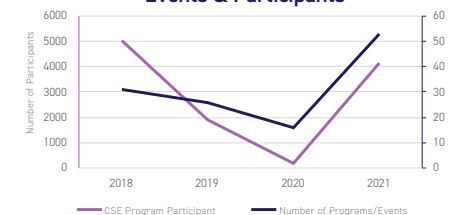
2020 heralded the beginning of a tumultuous global era. Acknowledging that powerful images and messages can ignite change, a multi-disciplinary panel of experts gathered on 9 July 2020 under socially-distanced conditions – sans audience – to seek and identify points of inspiration for scientists, governments and communities to take action in response to COVID-19, devastating bushfires, a changing climate, systemic racism and social unrest. Proceedings were filmed and livestreamed for the Inspiring Victoria program.



## Community Science Engagement Program

Highlights of the early years of the program include establishing partnerships with seven regional and suburban Victorian Tech Schools to act as Science and Innovation Hubs for the program, establishing the Victorian Chapter of the Australian Citizen Science Association, and a small grants program focused on engaging children and families in STEM activities. From 2019, a "Partnership Network" approach has been fostered, now focused on the 260 branches of Victorian public libraries and 400 community centres represented by Neighbourhood Houses Victoria.

Community Science Engagement Program - Events & Participants



The number of events took a step dive in 2020 as community groups and grass roots organisations came to terms with methods for audience engagement during the pandemic. With a focus on broadcast partner events and skills development for regional librarians through the "Regional Science Champions" program, the numbers and participation rates rebounded in the second year of the pandemic.

## Quality

Generally, surveys of audience members and event holders have been limited to activities undertaken during National Science Week, with some qualitative feedback sought through the grant acquittal process for year-round activities under the Inspiring Victoria banner.

The charts below reflect our key engagement goals for the major events of the National Science Week program, influenced by the overarching targets set by the national Inspiring Australia program.

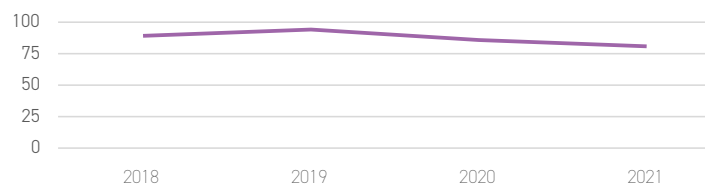
## Major Events

The data reflects the strong qualitative performance of the 2019 major event, "Extrasensory" in particular. Held throughout the spaces on offer at Parliament House on a Saturday night, the event clearly had appeal to a younger audience and people

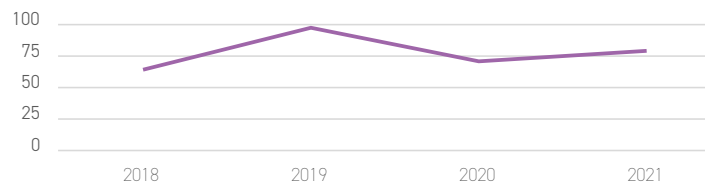
Major events throughout the period maintained a high approval rating with audiences.

who are not typically engaged with science, and also had "something new" to teach participants – which speaks well of the attraction of highly curated content but could equally be a function of attracting a larger demographic under 50.

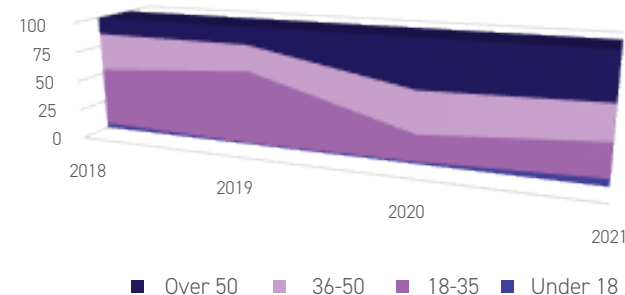
Would you recommend this activity/ event to friends or family?



Did you Learn Something New During this Activity?



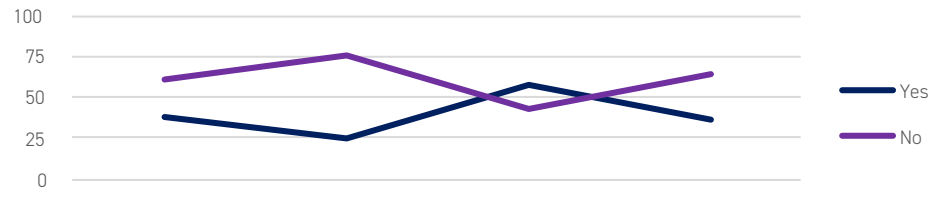
What is your age group?



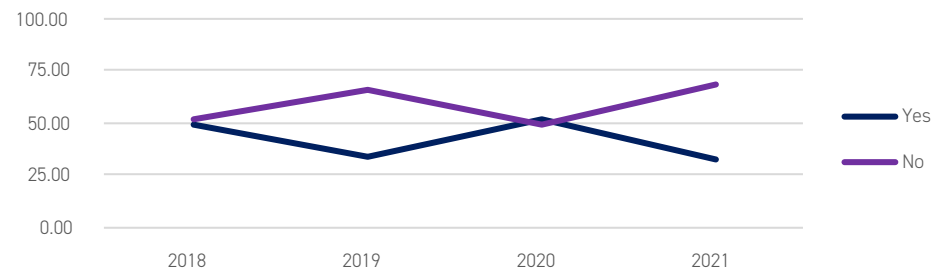
The sharpest demonstration of the 2019 major event's qualitative impact is illustrated in the following two charts, which variously canvass audience members who are attending Science Week events for the first time or do not work or study in a scientific field. There is a strong correlation between the two, suggesting the "Possible Impossible" program in particular was attended by a larger community of scholars and science engagement supporters than in other years.



### Have you been to a National Science Week event before?



### Do you currently work in or Study Science?



Again, this supports the attraction of a non-scientific crowd to novel, cultural, in-person events concerned with scientific content; however, the 2021 ACCLIMATE program also evidenced a strong response rate from the non-scientific, potentially due to the strong partnership model helping us to reach new audiences and the subject matter bridging the scientific and social divide.

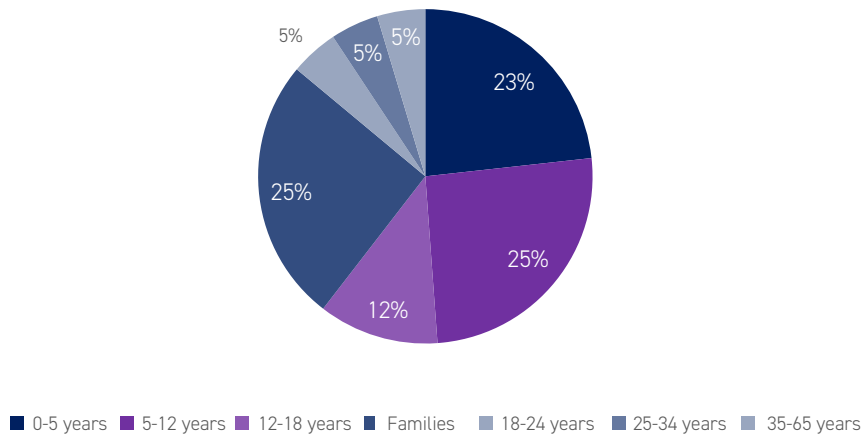
## Equity & Demographics

Data gathering on this element has been inconsistent for year-round Community Science Engagement (CSE) over the four-year period, particularly over the pandemic years, and offers an element for sharp improvement. Regardless, the 2019 data is fulsome and provides a snapshot to compare with the National Science Week effort.

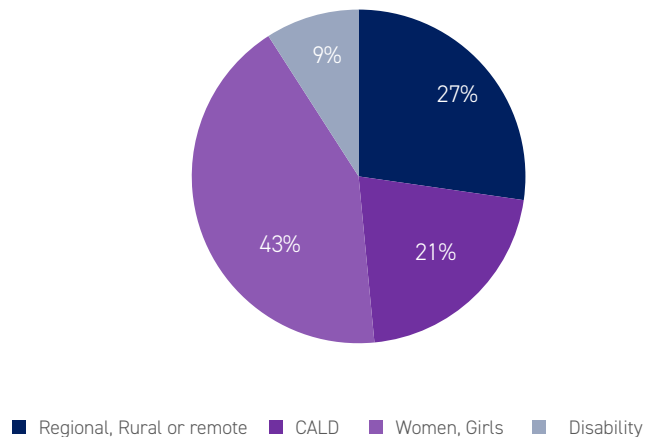
With libraries and community centres the main destination of CEP grant funds, it can be seen the demographic reached through programs supported have overwhelmingly been school-aged children and their families, with only 15% of activities targeting age groups over-18.

Meanwhile, participation based on equity group classification returned a very high rate for "Women and Girls," with "Regional, Rural or Remote" and "Culturally and Linguistically Diverse" communities also occupying a large proportion of event target audiences.

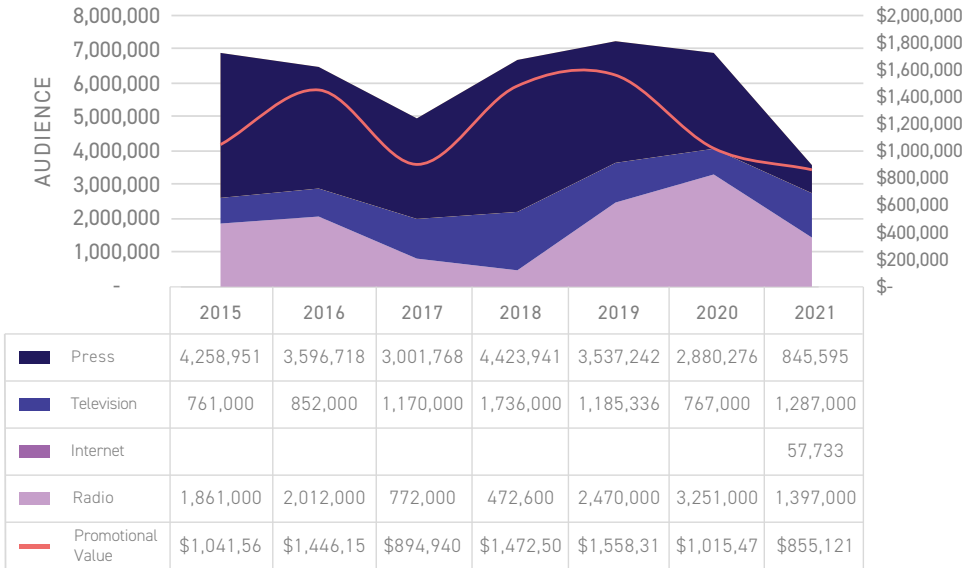
Participating Age Groups - 2019 CEP Program



Targeted Equity Groups - 2019 CEP Program



### National Science Week Media Reach (Victoria), 2015-2021



### Media and Audience Participation

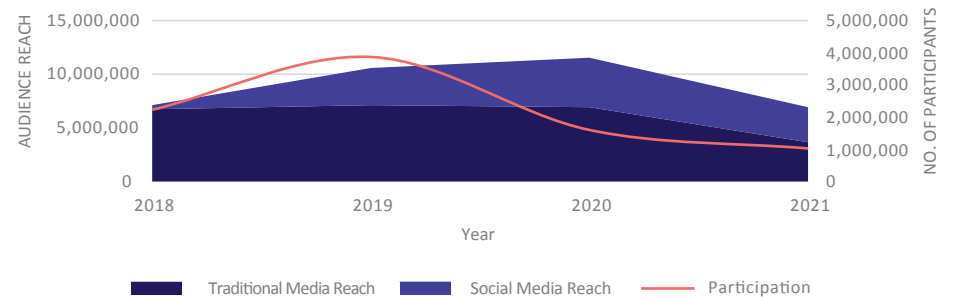
The first two years of the program made a feature of our international and interstate guests; scientists from NASA were in particularly hot demand (most notably, Dr Jessie Christiansen and Dr Darlene Lim) by regional centres and corporates for event appearances, and regional and metropolitan media found many opportunities to feature their visits in the context of National Science Week. The Media and Audience Participation data illustrate something of this impact, along with the high number of statewide event holders sustained over 2018-19.

There is a correlation between media impact and the rate of audience participation in statewide events for

National Science Week. With the loss of international and interstate visitors from 2020, media interest in National Science Week experienced a palpable slump by 2021 – bearing in mind this period also correlated with widespread closures of regional newspapers and an intent fixation on the progress of the pandemic locally and worldwide. We sustained a push to provide live, online, interactive content for audiences to engage with during lockdowns by aggressively expanding our reach and delivery through social media channels; however, this did not translate into expanded participation.

Media impact: RSV’s management of National Science Week in Victoria commenced in 2018, correlating with a strong press response and a growing radio audience, sustained up to the second year of the pandemic (2021). Source: Sentia via Questacon

### Social & Traditional Media Audience Reach Correlating with Audience Participation



#### Making Headlines

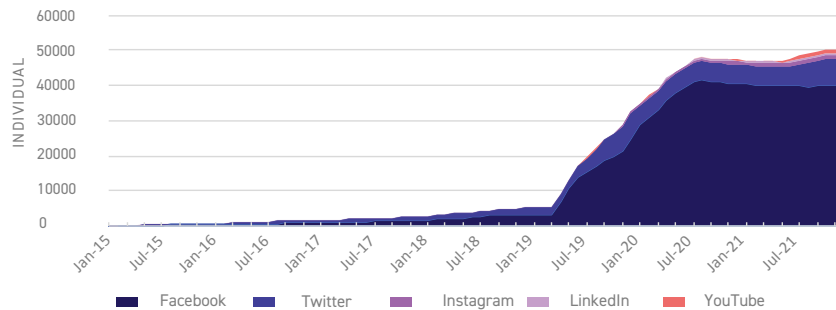
NASA scientist and “planet hunter” Dr Jessie Christiansen with Finley, 7, and Eliza, 8 at Scienceworks. Picture: Tim Carrafa Source: News Corp Australia – published with an article titled “Meet the Australian astrophysicist helping the discovery of new planets” in the *Herald Sun*, 14 August 2018



## Social Media

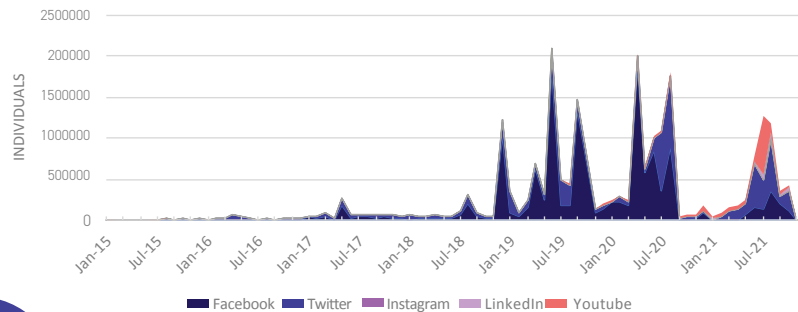
The RSV's sustained campaign to increase its social media share represents the building of capacity to self-publish and distribute content to target audiences without recourse to seeking the interest and favour of traditional media outlets for program content. From January 2018 to November 2021, the audience share for the Inspiring Victoria program increased from 2,902 to 51,045 followers across all platforms, an increase of 1759%.

**RSV Social Media Subscribers by Channel, 2015-21**

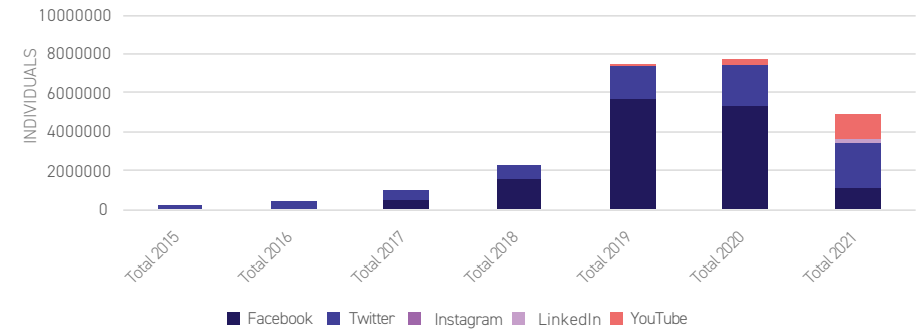


The RSV's reach to social media audiences increased commensurate with efforts in subscriber growth, attaining greater impact and awareness through likes, shares and comments by subscribers to a much larger online community. It is notable, however, that our total reach dropped off during 2021 after a sharp rise in impact over 2019 and 2020.

**RSV Social Media Audience Reach, 2015-21**



**RSV Social Media Channel Reach by Year**



While the causal link is speculative, it is reasonable to assume a reduction in Science Week content deemed newsworthy has in turn reduced Victoria's traditional media coverage, which has then impacted both awareness and engagement with National Science Week programming during the pandemic - however, it is also clear there is a significant shortfall in audience reach achieved through Facebook in 2021, despite this channel holding the majority of the RSV's subscription base and favour as our means for livestreaming presentations, including with major partners such as the Parliament of Victoria. This follows a general global trend by this massive, frequently controversial promotional platform to overwhelmingly favour paid promotion and distribution of content over the 'organic' reach we typically seek in its ever-evolving algorithms.

With the rise of political and social discord in the current era, there is further disruption to online engagement channels, which typically implement algorithms to moderate spam and antisocial behaviours in what is increasingly "a room filled with shouting people." One such algorithm identified a major Science Week livestreamed event on "Indigenous Food and Agriculture" as "violating community standards," so it was bewilderingly removed from Facebook never to be seen again, significantly reducing its valuable, post-event impact.

.....  
*This suggests further growth and diversification of our subscription base via Twitter and YouTube is a well-placed priority for future audience engagement.*  
 .....

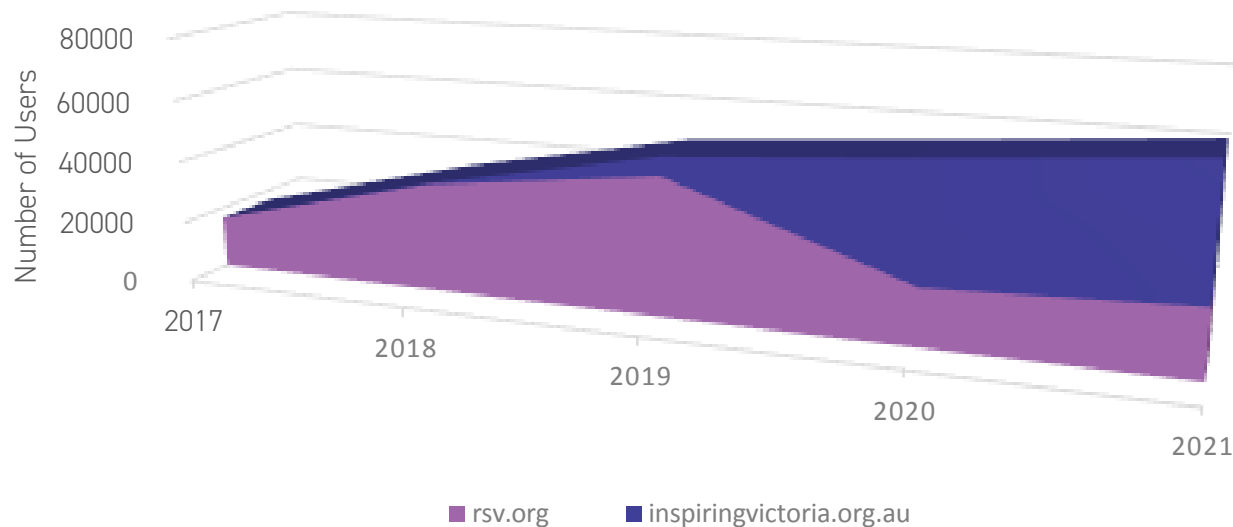
## Website Engagement

While audience participation generally has taken a hit during the pandemic, our online audience has continued its vigorous growth across both the RSV's main website and the new Inspiring Victoria website, reflecting interest in our efforts to publish the content of speakers, programs and workshops with a range of feature articles, along with our efforts in promoting events hosted on each site.

.....  
*The data sets below are derived from Google Analytics reporting tools.*  
 .....

The site at <https://inspiringvictoria.org.au> was constructed and launched in April 2018 and, with the move to providing a completely online program from 2020, experienced a substantial increase in internet traffic while the website at <https://rsv.org.au>, typically concerned with promoting events, declined in audience share.

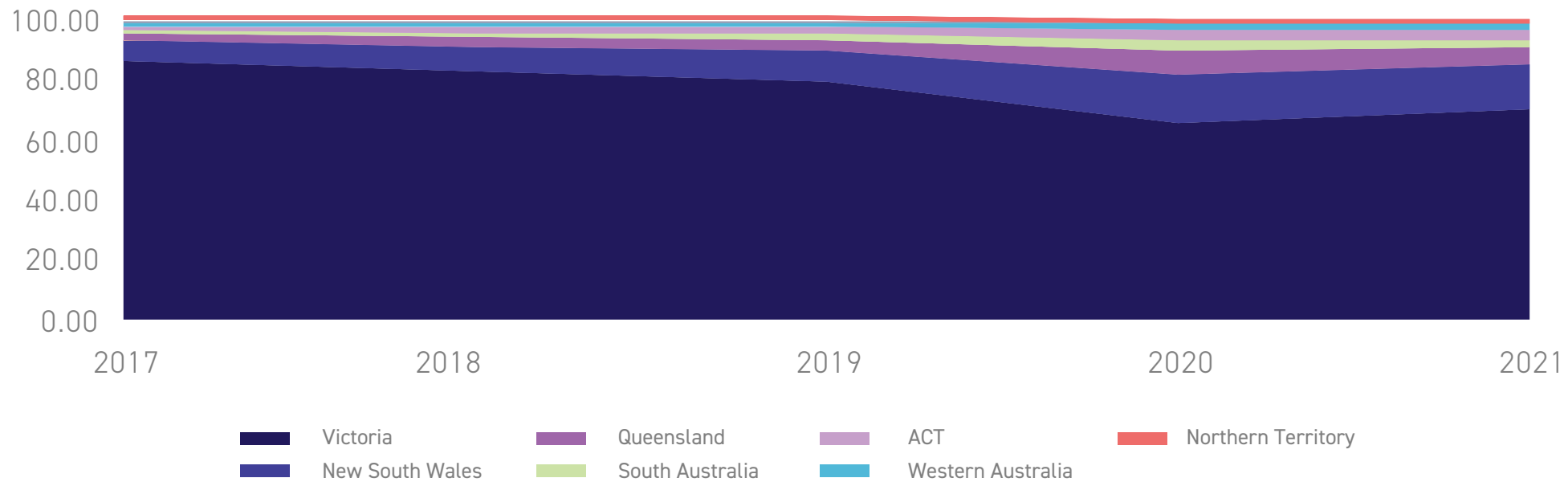
## Global Engagement by Website



## Australian Audiences

Concurrently, while serving a majority of Victoria-based audience members, both websites trended towards interest from a larger proportion of interstate users, particularly from New South Wales and Queensland

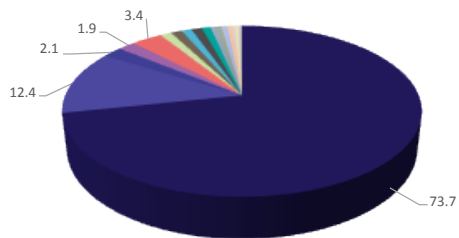
### User Proportions (%) by Australian Region: All Websites



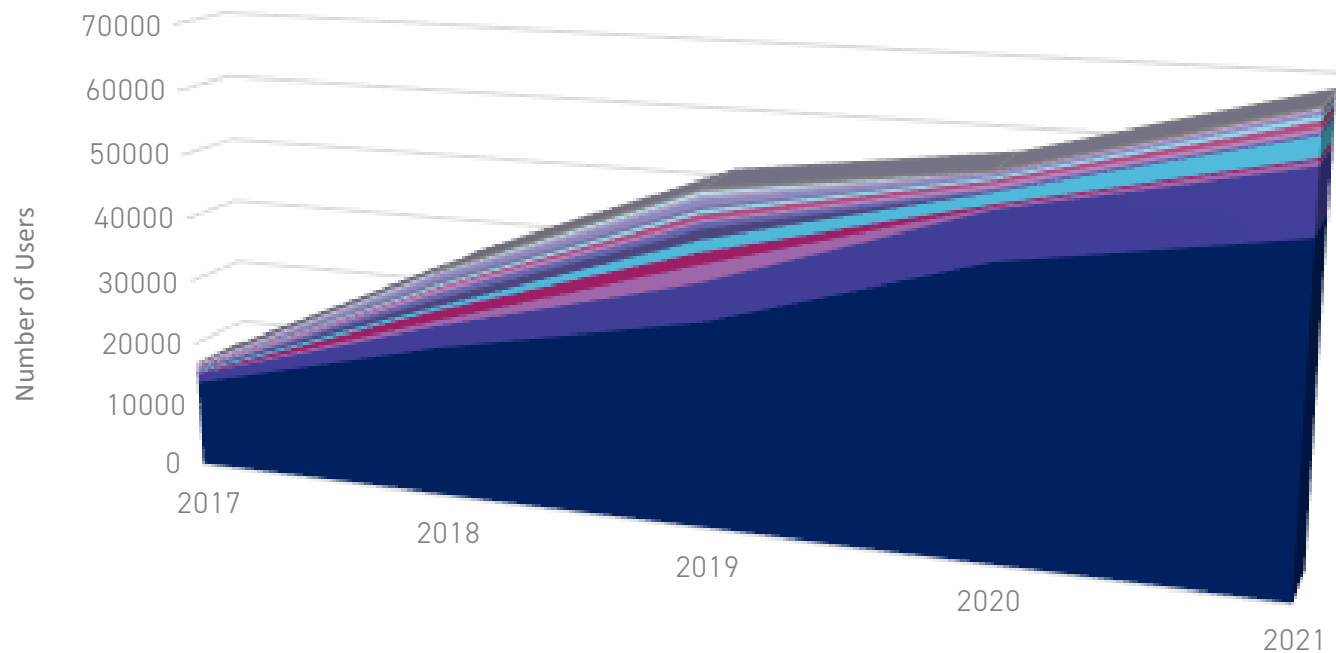
## Global Audiences

Internationally, the program has engaged a majority of Australasian audiences (73.7% over five years), while sustaining interest from audiences in Northern America (12.4%) and Northern Europe (3.4%), with a notable increase in engagement from Southeast Asia, South America and Northern Africa ahead of the outbreak of the pandemic. Given the content is provided in English, it's interesting to note a large minority emerging from typically non-Anglophone regions; while English is pervasively used for commercial and diplomatic communication between linguistically diverse cultures, the uptake in general interest from cultures where English is not the first language may also reflect usage of improved, automated translation functions for online content that is essentially delivered in text form.

User Proportions (%) by Subcontinent: All Websites



Global Engagement by Subcontinent: All Websites



- Australasia
- Northern America
- Southeast Asia
- South America
- Northern Europe
- Northern Africa
- Western Asia
- Western Europe
- Southern Asia
- Eastern Asia
- Western Africa
- Central America
- Southern Europe
- Eastern Europe
- Eastern Africa
- Southern Africa
- Melanesia
- Middle Africa
- Carribbean
- Central Asia
- Micronesian Region
- Polynesia

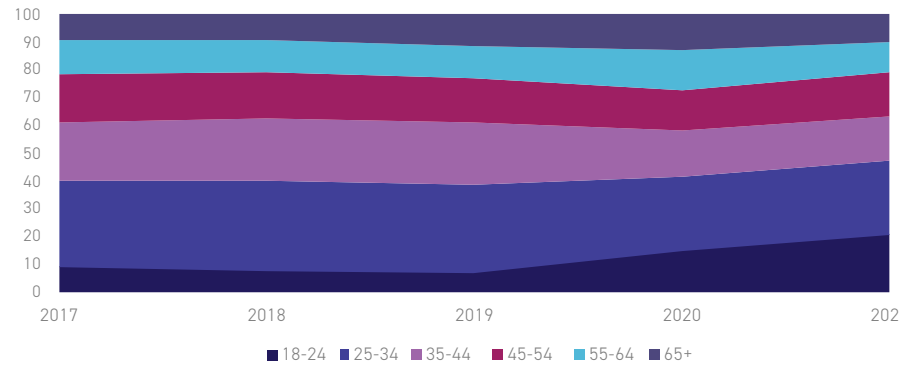
## Age and Gender

We began the initiative with the intention of engaging people typically disinterested or otherwise disengaged with scientific content. While children and families remain a key target demographic, young adults under 34 years of age were of particular interest to us, especially through the design of our major Science Week events in 2018 and 2019.

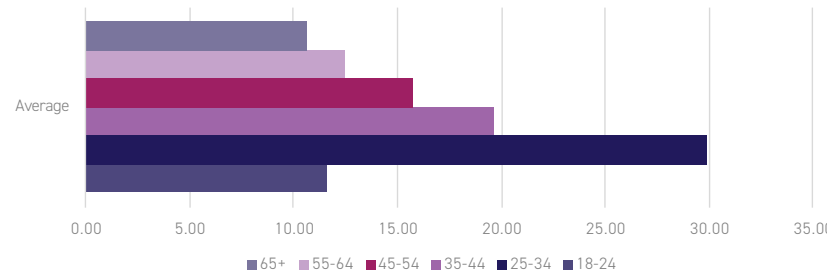
Website audiences reflect the demography of populations with access to, familiarity with and high general utilisation of digital tools and platforms, which generally translates into older people being less engaged. This is borne out with the trend demonstrated below; however, it is pleasing to see a marked increase in engagement from young adults (18-24) with our content over the course of the pandemic, along with a bump in older people accessing our content at the outset of the associated restrictions on gathering and movement in 2020.

Overall, the largest audience over the five-year period represented are 25-34 year olds, at just under 30%.

Website Content Engagement by Age Group (%)

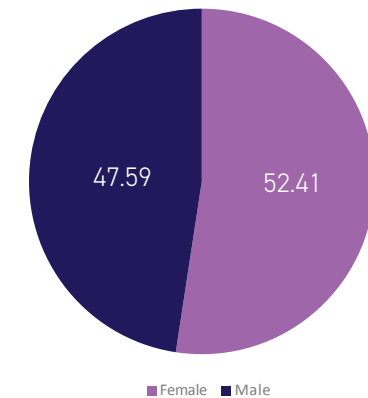


Average Engagement by Age Group (%) 2017-2021



In terms of gender, women were consistently the highest proportion of our website visitors, reflected in the average of 52.41% over the five years period recorded; again, given the underrepresentation of women in many fields of and leadership within STEM, this is a pleasing result for general engagement. *Please note that Google Analytics only collects binary representations of gender, so we are unable to report on the proportion of other gender identities.*

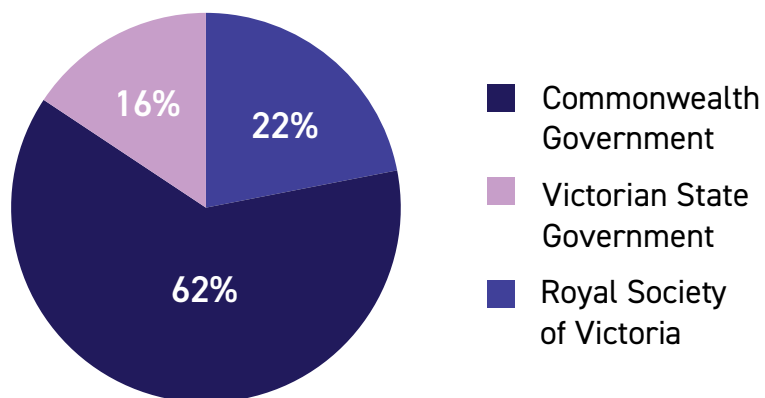
Average Engagement by Gender (Binary) - 2017-2021



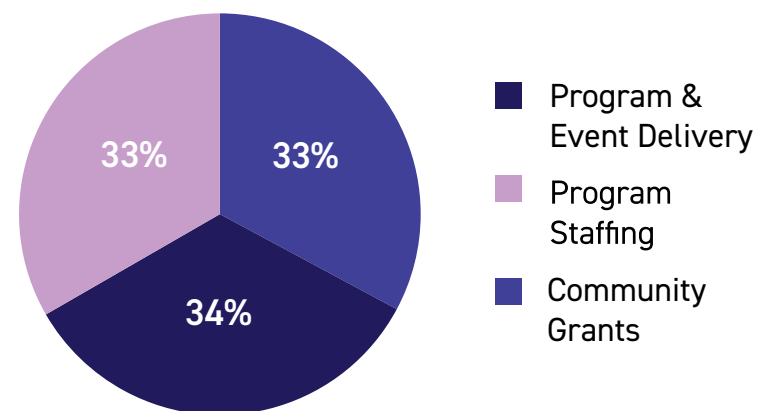


## Funding Contributions and Distributions, 2018 – 2021

Expenditure of program funds has demonstrably followed an even three-way split between community grant-making, program delivery and staffing.



Inspiring Victoria - Funding Contributions, 2018-2022



Inspiring Victoria - Funding Distributions, 2018-2022

### Contributions

Royal Society of Victoria Contribution:	\$280,000
Commonwealth Government Contribution:	\$796,500
Victorian State Government Contribution:	\$200,000
<b>Collective Contribution:</b>	<b>\$1,276,500</b>

### Distributions

Community Grants – National Science Week:	\$128,883
Community Grants – Science Engagement Program:	\$286,466
<b>Total Community Grants:</b>	<b>\$415,349</b>
Program & Event Delivery – Website, Promotions, Productions & Venue Hire:	\$222,018
Program & Event Delivery – Subject Expertise & Professional Services:	\$147,547
Program & Event Delivery – Governance, Risk & Compliance Overheads:	\$58,242
<b>Total Program &amp; Event Delivery:</b>	<b>\$427,807</b>
<b>Program Staffing:</b>	<b>\$421,282</b>
<b>Total Distribution:</b>	<b>\$1,264,537</b>

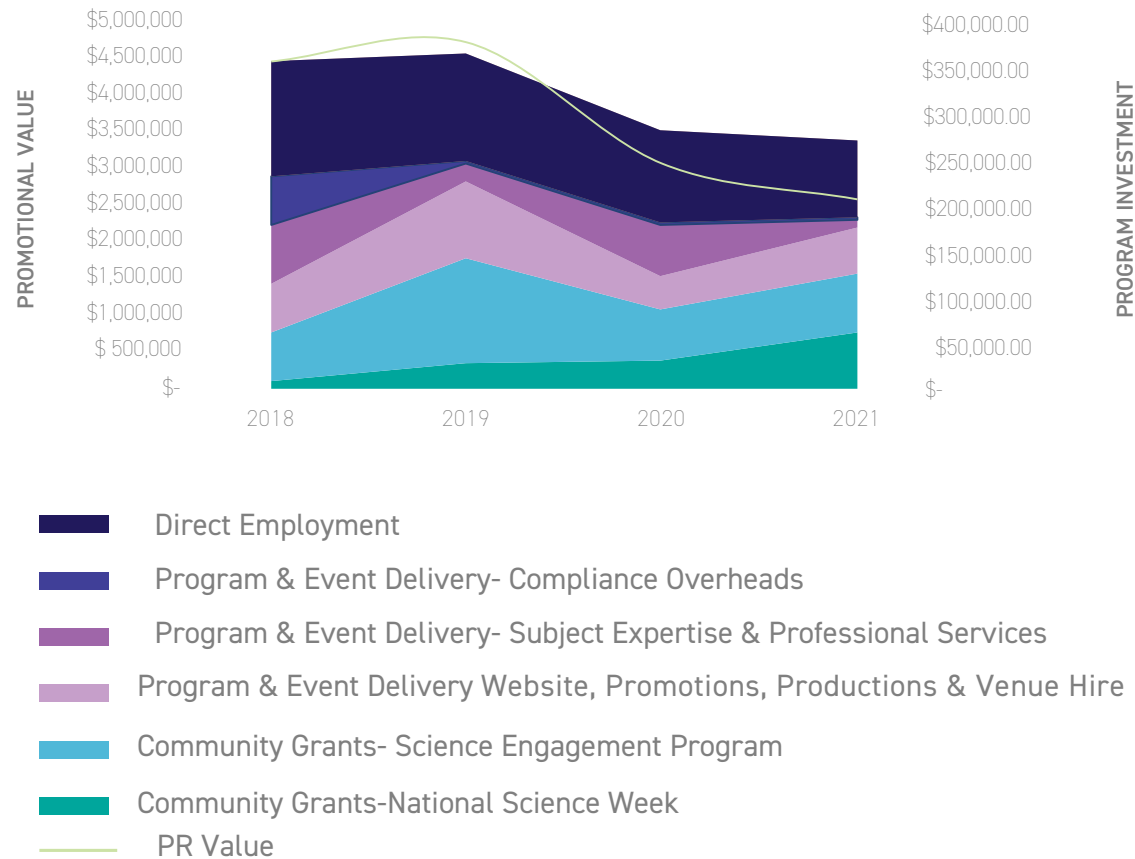
While indicative in-kind value derived from the many partners involved has not been quantified, it is reliably substantial, with several major public institutions and community-convening networks involved in delivery.

## Science Promotion: Return on Investment

Meanwhile, we can extrapolate a promotional value from the Advertising Sales Rates (ASR) associated with traditional media impact, as below, which demonstrates that collective contributions of \$1,264,537 over four years has returned a benefit of \$14,704,245, representing a promotional return on total investment of **1063%**.

Given this does not reflect the significant impact of the initiative's websites, social media share, in-kind investment by event and program partners nor participation and engagement rates by audiences, this can be considered a very conservative number.

### Promotional Value Correlating with Program Investment



## Acknowledgements

In Victoria, the Inspiring Victoria Board brought together a group of institutions, agencies and networks concerned with community science engagement to oversee the whole program. Reporting to the Board was a Victorian Coordinating Committee for National Science Week, comprised of volunteers from various organisations works to coordinate and promote Victorian National Science Week activities. The Committee's commitment to communicating science enables National Science Week to be such a great success.

Further, the RSV's Outreach and Partnerships Committee, the catalysing body for the whole program, maintained involvement through reviewing and approving grants through the Community Science Engagement Program.

### Inspiring Victoria Board (2021)

- Dr Amanda Caples (Chair) - Lead Scientist, Department of Jobs, Precincts and Regions
- Ms Tamara Niznik - Senior Manager, Questacon National Networks and Programs
- Mr Mike Flattley - CEO, The Royal Society of Victoria
- Ms Kate Barnard - Chair, National Science Week Victoria Coordinating Committee
- Mr Jonathan Shearer - General Manager, Scienceworks, Museum Victoria
- Ms Daniel Arifin - Manager, Tech Schools, Department of Education and Training
- Mr Kade Mills - Chair, Australian Citizen Science Association (Victoria Chapter), Victorian National Parks Association
- Ms Julia Page - CEO, VESKI Ms Angela Savage - CEO, Public Libraries Victoria
- Ms Rena Singh - Inspiring Australia Manager, Victoria, The Royal Society of Victoria

### Victorian Science Week Committee (2021)

- Ms Kate Barnard – Chair, Scienceworks, Museums Victoria
- Mr Mike Flattley – Deputy Chair, CEO, The Royal Society of Victoria
- Ms Catriona Nguyen-Robertson – Science Communications, The Royal Society of Victoria
- Ms Rena Singh – Manager, Inspiring Victoria, The Royal Society of Victoria
- Dr Peter Skilton – Immediate Past Chair, Mornington Peninsula Astronomical Society
- Mr Nick Besley – Thin Green Line Foundation
- Ms Claire Farrugia – 3CR Lost in Science presenter, Science Gallery Melbourne
- Ms Ann Pisarevsky – Science Teachers' Association of Victoria
- Ms Helen van de Pol – The University of Melbourne
- Dr Malcolm Jenkins – DST

### RSV Outreach and Partnerships Committee

- Ms Pamela Borger – Chair
- Mr Siddharth Verma
- Dr Amy Nisselle
- Ms Helen van de Pol
- Mr Stephen Spain
- Dr Sophia Frenz
- Dr James Driscoll
- Mr Mike Flattley

Our warm thanks to all involved, and particularly Dr Amanda Caples and her office for providing Board leadership and governance support for Inspiring Victoria for the past four years. Our gratitude is extended to the Department of Jobs, Precincts and Regions for providing the Victorian Government's funding contribution to this partnership program, currently within the portfolio of Minister Jaala Pulford MP.

From 2022, the Royal Society of Victoria will be partnering with the Victorian Commissioner for Environmental Sustainability, Dr Gillian Sparkes, as the state government advocate for the Inspiring Victoria program and is currently seeking a new source of State Government funding.