



National Youth  
Science Forum

# 2020-2021 Annual Report



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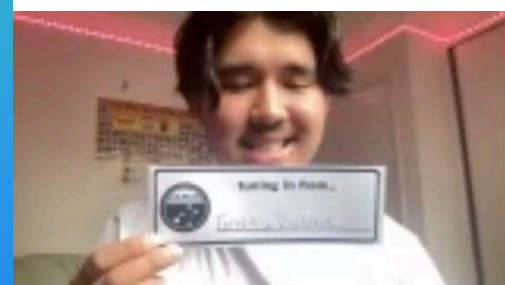
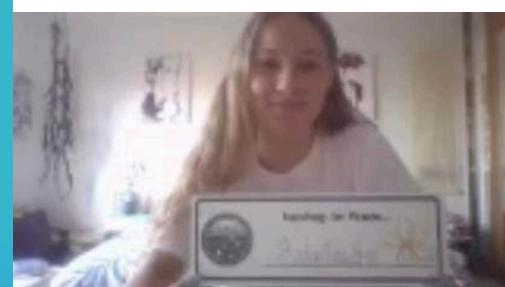
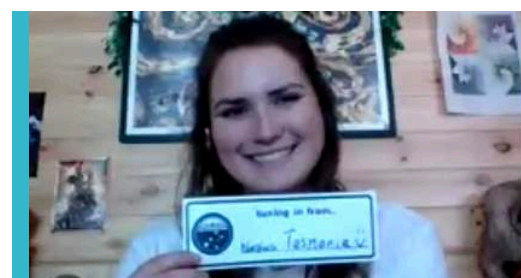
The NYSF acknowledges the Traditional Owners of the country throughout Australia and pay respect to their scientific knowledge and continuing connection to land, sea and community. We pay our respect to their Elders past, present, and emerging.

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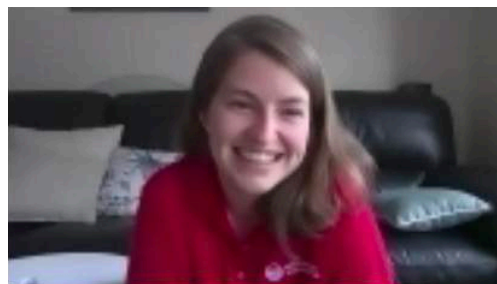
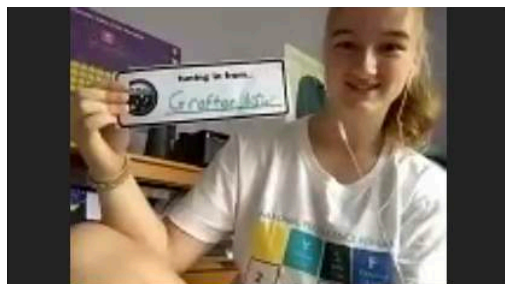
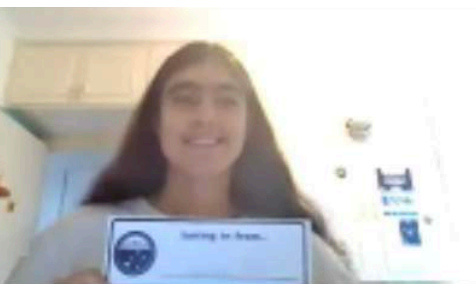
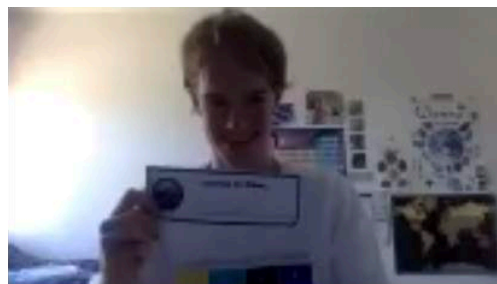
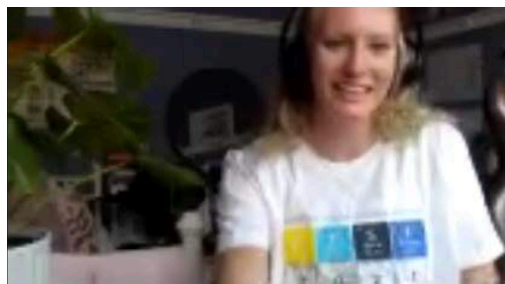
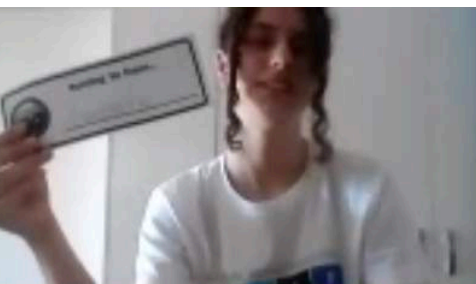
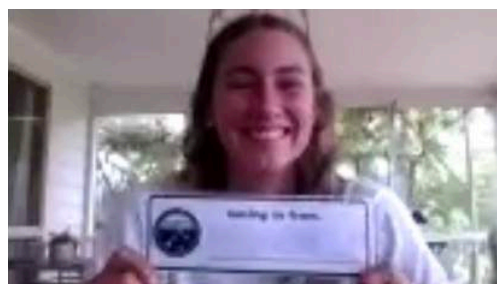
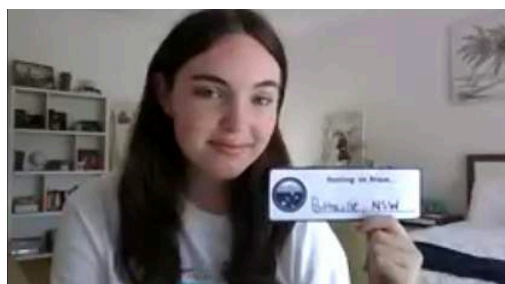
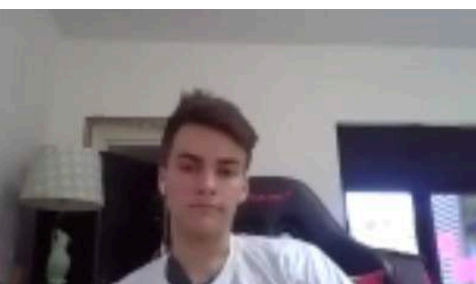
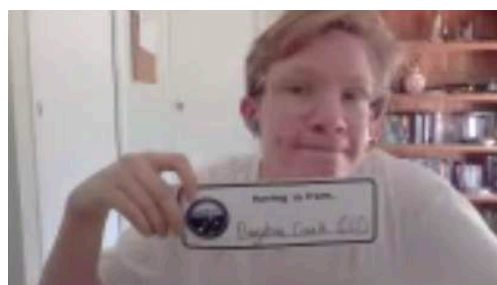
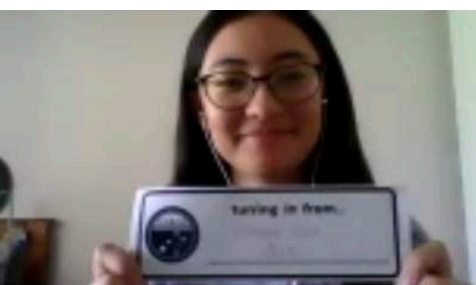
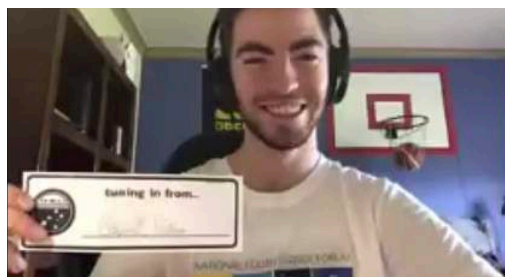
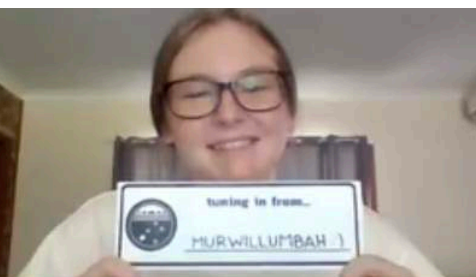


# Table of Contents

|  |    |
|--|----|
| Message from the Chair                         | 6  |
| Message from the CEO                           | 7  |
| Vision and purpose                             | 9  |
| Governance                                     | 10 |
| Acknowledgements                               | 11 |
| Our partners                                   | 12 |
| NYSF programs                                  | 14 |
| 2021 NYSF Year 12 Program                      | 15 |
| Program highlights                             | 16 |
| The program in numbers                         | 18 |
| Our impact                                     | 20 |
| NYSF Equity Scholarships                       | 22 |
| NYSF Student Staff Leadership Program          | 24 |
| Marketing, media, and communication impact     | 25 |
| NYSF Connect                                   | 28 |
| NYSF Connect Webinar Series                    | 28 |
| NYSF Connect Online Careers                    | 32 |
| Day 2020                                       |    |
| STEM outreach beyond our regular programming   | 34 |
| National Science Week 2020: A week of webinars | 34 |
| Alumni on ABC's The Science Show               | 35 |
| Financials                                     | 36 |







# Message from the Chair

I'm honoured to deliver my last report as Chair of the National Youth Science Forum (NYSF). I served as Chair through to July 2021 and am delighted to remain on the NYSF Board as Deputy Chair. Thank you to my fellow board members for their support and to the NYSF corporate team for their incredible work throughout the last two years.

COVID-19 changed our lives – the way we work, the way we interact, and how we support one another. This is especially the case for not-for-profits like the NYSF, and we are eternally thankful for the steadfast support of our partners and supporters.

Thank you to our Patrons, His Excellency General the Honourable David Hurley AC DSC (Retd), Governor-General of the Commonwealth of Australia and Her Excellency Mrs Linda Hurley. I also wish to thank our Science Patron, Professor Tanya Monro FAA FTSE FOSA FAIP GAICD, an NYSF alumna and Australia's Chief Defence Scientist. Professor Monro is an active and engaged member of our NYSF community and we greatly appreciate her inputs and advice.

Endless gratitude must go to all of our valued NYSF partners who supported us as we navigated the unusual circumstances of 2020 and 2021. I want to especially acknowledge our major partner, Lockheed Martin Australia, our founding partner, Rotary Australia, and our two host universities, the Australian National University and The University of Queensland.

I also want to express our thanks and gratitude to all the organisations, collaborators, programs, and individuals who supported us as we operated under so much uncertainty and moved our flagship NYSF Year 12 Program to a COVID-safe hybrid digital and in-person format.

Heading into the start of the financial year, the NYSF was in recovery mode

following the refunds associated with the cancellations and evacuations for the 2020 NYSF Year 12 Program due to the bushfire emergency in southeast Australia.

We started the year frugally and deliberately aimed for a surplus to restore our reserves after the significant operating loss in the prior year. This was achieved through targeted interventions whilst maximising the impact of a hybrid program through COVID-19.

Overall, we finished in a stronger position than anticipated due to one-off payments (government stimulus and insurance claim) which has strengthened our financial position to deliver greater impact in future.

Amidst cancellations and postponements, I'm so proud of the work that CEO Dr Melanie Bagg and the NYSF team achieved. Reinventing a program that has a 38-year history within three months was a herculean effort, and I commend the team for delivering one of the best ever line-ups for the 2021 NYSF Year 12 Program.

As we look forward, the board will evaluate our strategic learnings through this time and review our future offerings to best meet our goals for a diverse and high-achieving future science, technology, engineering, and mathematics (STEM) workforce.



**The Hon Kate Lundy**  
Chair, National Youth Science Forum



# Message from the CEO

Like for many other organisations, 2020-2021 was a year of challenges. For the NYSF, it also turned out to be a year of opportunity, many learnings and eventually, success as we achieved our goals.

March 2020 brought the global COVID-19 pandemic, so as with most things in 2020, the NYSF programs looked a little different. I am incredibly proud of our small team for their continued passion and enthusiasm through this last 18 months. I commend them for their ability to innovate and be flexible in shifting situations, and for doing it all while working remotely.

I am so proud of how we reinvented our flagship program, the NYSF Year 12 Program. Pivoting from three residential programs in Canberra and Brisbane, we instead ran a three-week, hybrid in-person and digital extravaganza with the best STEM professionals and organisations in Australia and internationally.

STEM visit hubs were held online and in-person in Canberra, Perth, Adelaide,

Brisbane, the Gold Coast, Townsville, Hobart, Armidale, and Newcastle. We kept in-person visits state- and territory-based to segment the events in the case of lockdowns. This proved to be a wise choice, as STEM visits in Melbourne, Sydney, Wollongong, Wagga Wagga, and some parts of Queensland couldn't proceed due to COVID-19 restrictions.

As well as the NYSF Year 12 Program, we moved the Student Staff Leadership Program online. Our Staffies took to the new format incredibly well and were essential in the success of the program.

Our remodelled and expanded program was attended by 574 participants. We delivered 67 live digital sessions, featured 182 speakers, and enabled the safe delivery of 57 state-based in-person STEM visits over three days. The program received an overwhelmingly positive response from participants, partners, and presenters.

Our NYSF Connect alumni program also saw great change with a move to digital

2021 NYSF Year 12 Program participants during a STEM visit in Hobart





programming. We focussed on providing webinars to keep our alumni engaged and informed. We ran 30 webinars in 30 weeks, covering topics from science communication to artificial intelligence to careers in space and featuring a phenomenal array of speakers.

We made the difficult decision in tandem with the South Australian Department for Education to postpone the STEM Explorer Program in Adelaide. The National Science Teachers' Summer School and International Program are also on hold due to COVID-19 restrictions and will be reviewed in the coming year.

Financially, it was an unpredictable year. At the beginning of the year, we were aiming to achieve a surplus to replenish our reserves after the fires. To achieve this we approached our activities and ongoing expenses frugally, saving on travel, events, and several staffing- and office-related overheads that we would incur in a typical year. We actively sought out one-off sources of income to help balance what was headed towards a very significant deficit. Pleasingly, a number of these one-off payments came to fruition. This will allow us to use this year's surplus to restore balance to NYSF

financial reserves that were drawn on during a time of crisis.

Our efforts and success this year would not have been possible without our partners, supporters, alumni, volunteers, the NYSF Board, and our staff. Every year I've worked at the NYSF and written this CEO message, I struggle to find words that convey just how thankful I am for your incredible support. I'll leave it at this: thank you. I hope this year has treated you kindly despite our shared challenges and that you are as excited as I am about the future!



**Dr Melanie Bagg**  
CEO, National Youth Science Forum



2021 NYSF Year 12 Program participants visiting the Australian Space Agency Discovery Centre as it was being built in Adelaide



# Vision and **purpose**

The NYSF is a not-for-profit charity that delivers youth-led programs to encourage young people's passion for science, technology, engineering, and mathematics (STEM).

## **Vision**

To inspire young Australians to value science, technology, engineering, and mathematics (STEM) and their importance in our communities.

## **Purpose**

NYSF delivers immersive and transformative youth-led experiences for young Australians to encourage life-long STEM literacy.



# Governance

## Board of Directors

The NYSF is governed by an active Board of Directors. The board comprises nine highly respected and accomplished members of the STEM sector and business community, as well as the NYSF CEO. Board members throughout 1 April 2020 to 31 March 2021 were:



**Chair**  
The Hon Kate Lundy



**Deputy Chair**  
Dr Geoff Garrett AO



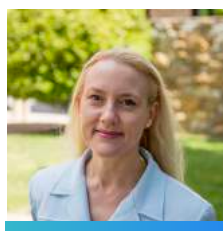
**Deputy Chair**  
Kerri Hartland



**Secretary**  
Rowley Tompsett



**Finance Director**  
James Palmer



**Alumni Director**  
Dr Renée Kidson



**Ordinary Director**  
Professor Sally-Ann  
Poulsen



**Ordinary Director**  
Loren Atkins



**Rotary Liaison  
Officer**  
Kenneth R Hall



**CEO**  
Dr Melanie Bagg

## NYSF Council

The NYSF is guided by the NYSF Council. The council includes representatives of organisations relevant to the purpose and mission of NYSF, including:

- Australian Academy of Science
- Australian Academy of Technological Sciences and Engineering
- Australian National University (ANU)
- University of Canberra (UC)
- Commonwealth Scientific Industrial Research Organisation (CSIRO)
- Former NYSF Chiefs of Staff

## NYSF Patrons

- His Excellency General the Honourable David Hurley AC DST (Retired), The Governor-General of the Commonwealth of Australia (2020)
- Her Excellency Mrs Linda Hurley

## NYSF Science Patron

- Professor Tanya Monro FAA FTSE FOSA FAIP GAICD, Australia's Chief Defence Scientist, NYSF Science Patron, and NYSF 1990 Alumna

# Acknowledgements

It would be impossible for the NYSF to operate without the support of our NYSF partners, STEM experts and organisations, NYSF alumni, volunteers, and other collaborators from across Australia and the world. We work with organisations that share our passion for supporting young people.

These relationships allow the NYSF to offer participants a range of opportunities to participate in STEM programs and events. This is especially the case in 2020-2021.

We thank all the organisations and their staff for opening their labs and workplaces to our participants in 2020-2021, whether in person or online. We'd also like to thank the many STEM experts and NYSF alumni who appeared as guests on our NYSF Connect webinars throughout the year. They volunteer not only their time but also their

knowledge of and enthusiasm for STEM. A very big thank you to Rotary Australia. 21 Rotary Districts and their corresponding clubs worked with us to locally champion the NYSF, run student selections, financially support participants to attend, and provide in-program support to participants. We estimate Rotary volunteers provided more than 20,000 hours to help deliver NYSF programs. Despite being also heavily impacted by COVID-19, Rotary Australia continued to provide, and in many cases increased, their support of the NYSF.

Finally, we thank our alumni volunteers, particularly our Student Staff volunteers. They provide tremendous support to the NYSF team and our program participants.



2021 NYSF Year 12 Program participants and a Rotary volunteer during a STEM visit at The University of Queensland in Brisbane





## Our partners

Partnerships are vital to the NYSF. Our partners contribute financial and in-kind support to ensure the NYSF can continue to deliver transformative STEM experiences for young Australians.

Our partners help our program participants explore both university and industry career pathways across a broad range of STEM areas and topics in a meaningful way. Their involvement in our programs showcases the work they do and connects them directly with their future students and workforce.

We deeply appreciated our partners' understanding and commitment to the NYSF as we navigated through bushfire challenges during the 2020 NYSF Year 12 Program and the COVID-19 pandemic in the lead-up to and throughout our 2021 NYSF Year 12 Program. We are grateful for all that you do to support our programs.

## Major funding partners



Australian Government  
Department of Industry, Science,  
Energy and Resources

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## Host universities



Australian  
National  
University



THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

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## Corporate and government partners



Department  
of Industry



Australian Government  
Department of Defence



Government of South Australia  
Department for Education

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## Partner universities



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## Supporting organisations



PARLIAMENTARY  
EDUCATION  
OFFICE





# NYSF programs





## 2021 NYSF Year 12 Program

574

Participants

Our flagship program, the NYSF Year 12 Program, is held each year in January. It brings together participants heading into year 12 to discover study and career options in STEM fields. The program has run for more than 38 years and is one of the best-known STEM experiences in Australia for young people.

67%

Young women participants

Our program gives participants a broader understanding of the diverse study and career options available in STEM and encourages continued studies in these fields. To date, it has helped more than 13,000 alumni on their STEM journey.

48%

Rural and regional areas

In past years, the NYSF hosted 600 participants across three sessions located in Canberra and Brisbane, with each session lasting two weeks. The participants of the program were joined by 70 Student Staff volunteers, who attended NYSF-led leadership training and team building in preparation for delivering the program.

41%

NYSF Equity Scholarships

The NYSF responded to the challenges of the COVID-19 pandemic by reinventing our mode of delivery for 2021. This year for the first time, the 2021 NYSF Year 12 Program ran as a new-look, three-week hybrid program, featuring in-person and digital sessions, as a response to COVID-19. This COVID-safe format combined a series of live digital events, experiments, lectures, and in-person STEM visits across Australia.

A bonus of the digital delivery: all of the digital sessions were recorded and made available to participants throughout the following year.

It was such a success and so well attended that we are continuing with this style of COVID-safe delivery for the 2022 NYSF Year 12 Program. We look forward to reviewing the delivery format and eventually re-introducing the residential approach when it is safe to do so.

2021 NYSF Year 12 Program participants during a STEM visit at Murdoch University in Perth





## Program highlights

### Sessions with the best:

- Lectures with Nobel Laureates Prof Barry Marshall AC FRACP FRS FAA and Prof Brian Schmidt AC FRS FAA
- All things space with astronomer and Women in STEM Ambassador Prof Lisa Harvey-Smith
- Two sessions with Dr Karl Kruszelnicki AM, science enthusiast and communicator

### Hands on exploration:

- Extracting DNA from fruit and making bioplastics at home with Dr Bianca Warnock and Dr Deborah Devis
- Obscure water organism identification, waist deep in a lake, with Applied Ecology at the University of Canberra (Canberra)
- Coded sunrise alarm clocks with The Creative Element at ANU's Maker Space (Canberra)



### New perspectives:

- Explored endless career options and pathways with NYSF partners at the 2021 Careers Days
- Carbon Neutral Mining lecture by Dr Jessica Hamilton
- Learnt critical thinking skills with Dr Peter Ellerton from The University of Queensland and Dr Melanie Bagg, NYSF CEO and science communicator
- Two STEM communication workshops with experts in media and policy communications

### International STEM facilities

- Live cross to CERN in Switzerland for a tour of the Large Hadron Collider, the world's biggest and most powerful particle accelerator
- Live cross to Casey Station in Antarctica with the Australian Antarctic Division







### STEM in your backyard:

- Learnt how agronomy can help solve global issues affecting crops at the University of New England (Armidale)
- Solved crimes with the Forensic Sciences Service Tasmania (Hobart)
- Honed medical research skills in the Lab Researcher Olympics at the Telethon Kids Institute (Perth)

### Engineering the future:

- Designed, constructed, and launched a solid fuel model rocket with The University of Queensland Engineering (Brisbane)
- Virtual drone racing and 3D printing drone construction with the Australian Army Drone Racing Team
- Explored the space race with Lockheed Martin Australia, the Australian Space Agency, and Defence Science and Technology Group (Adelaide)



### Magnificent medicine:

- DNA profiling and electrophoresis with the Research School of Biology at ANU (Canberra)
- Biomedical sciences at the Griffith Institute for Drug Discovery (Brisbane)
- Working in a clinical environment at The University of Adelaide's Medical Sciences Precinct (Adelaide)

### Getting techy:

- The Internet of Things and molecular ecology with Dr Justin Perry from CSIRO and the James Cook University Molecular Ecology and Evolution Laboratory (Townsville)
- Virtual reality tour through the inside of a storm at The University of Newcastle (Newcastle)
- Created music using computer programming with ANU's College of Engineering and Computer Science (Canberra)







2021 NYSF Year 12 Program participants and NYSF CEO Dr Melanie Bagg with South Australian Premier The Hon Steven Marshall MP and John Gardner MP at Lot 14 in Adelaide

## The program in numbers

1.2K

Students started applications

67

Student Staff NYSF alumni volunteers

80

Rotary volunteers from 21 Rotary districts

182

STEM professionals took part in the program, either face-to-face or online

10

Immersive STEM visit hubs around Australia

20K+

Volunteer hours contributed by Rotary









2021 NYSF Year 12 Program participant during a STEM visit at The Creative Element in Canberra

## Our impact

Every year we survey students on their first and last days of the program to measure impact, track progress and evaluate our sessions.

The data shows the program influenced participants' future career and study decisions by giving them access to the very best STEM facilities and top STEM professionals across Australia and beyond.

The program exposes them to a broad range of future STEM study and career options they might not have previously considered.

9.2/10

Satisfaction rating with participants

65%

Said the NYSF expanded or changed their choices

94%

Rated their digital experience as good to brilliant

Thank you so much. My life and aspirations have changed so much after this program and my passion for STEM has grown so much more!

**2021 participant**

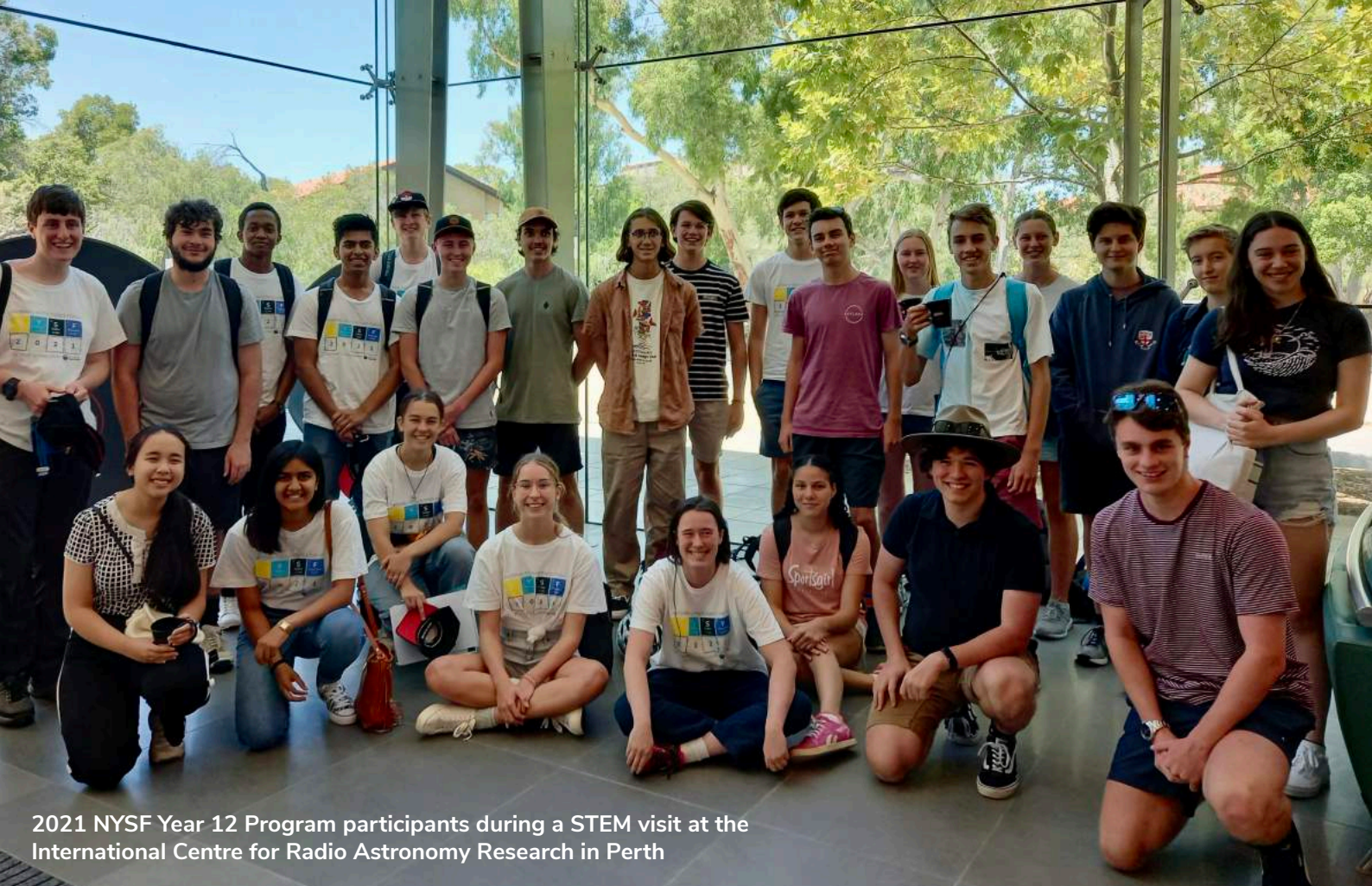


I was sceptical that the program was “life-changing”. I was proven wrong many times on that. I can confirm it is life-changing! A big thank you to all the staff behind the scenes, running zooms and such. They deserve some appreciation.

**2021 participant**







2021 NYSF Year 12 Program participants during a STEM visit at the International Centre for Radio Astronomy Research in Perth

## NYSF Equity Scholarships

At the NYSF, we recognise that some participants, for a variety of reasons, face barriers in attending NYSF programs. It's important to us that we provide as many avenues as possible for participants to attend our programs, so we can foster and encourage diversity in STEM fields in the future.

In 2021, 41 NYSF Equity Scholarships were awarded to assist participants from low

socio-economic or other disadvantaged backgrounds to attend the NYSF Year 12 Program.

The NYSF Equity Scholarships were made possible in 2021 thanks to funding provided by the Department of Industry, Science, Energy and Resources (DISER), Bayer Australia, and the Office of the NSW Chief Scientist & Engineer.



Office of the  
Chief Scientist  
& Engineer



Australian Government  
Department of Industry, Science,  
Energy and Resources



*The scholarship allows me as a rural student, to participate in the NYSF program. This is a wonderful opportunity for me to network with industry professionals and to expand my interests in STEM.*

**2021 Participant**





2021 NYSF Year 12 Program participants during a STEM visit at the University of Canberra in Canberra





## NYSF Student Staff Leadership Program (SSLP)

SSLP is a leadership and team building program that prepares recent NYSF Year 12 Program alumni to return as Student Staff volunteers.

Student Staff volunteers, or 'Staffies' as they're affectionately known, assist NYSF staff during the program by leading the participants through their sessions, organising social events and delivering our 'for youth, by youth' charter.

Like many NYSF programs in 2020, SSLP switched to a digital delivery. Our Student Staff volunteers handled the change with professionalism, enthusiasm, and positivity.

Over eight weeks, Student Staff volunteers learnt about different leadership styles and techniques as well as health, risk, and safety management in online sessions. They heard from a range of leaders in their fields:

- Dr Kirstin Ferguson, former Deputy Chair of the ABC
- Dr Geoff Garrett AO, NYSF Board Deputy Chair, former Queensland Chief Scientist, and former Chief Executive of CSIRO
- Georgeina Whelan, AM, CSC and Bar, ACT Emergency Services Commissioner
- Professor Aidan Byrne, Provost at The University of Queensland
- Dr Melanie Bagg, CEO of the NYSF

Student Staff volunteers also gained first aid training and the necessary working with vulnerable people checks.

During the 2021 NYSF Year 12 Program, Student Staff volunteers introduced digital and in-person sessions, managed the Q&A process for sessions, and worked to keep participants engaged during sessions. In addition, they hosted social functions online, including a formal dinner, a trivia night, and STEM groups where participants met to discuss their individual STEM interests.



# Marketing, media, and communication impact

## Leading up to the program

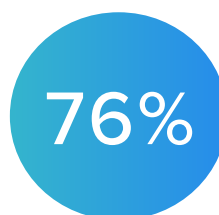
### Email communications with participants

Due to the change in program delivery, it was important to keep participants, their families, and our Rotary volunteers up to date with developments in the program and aware of any COVID-19 impacts.

We developed a weekly email update, that announced program confirmations, highlighted the benefits of attending the program, and included any administrative requirements. These emails were key in retaining participants in the program.



Emails sent to more than 1,500 participants, parents, and guardians



Open rate  
(industry average: 34%)

### State governors' videos

Due to COVID-19 restrictions, annual state governors' and administrators' events congratulating participants on their selection were not possible this year. We invited each of the state governors and administrators around Australia to share a congratulatory message with 2021 NYSF Year 12 Program participants.

We received videos from each state and territory and an extra special congratulatory video from the NYSF's Patrons, The Governor-General of Australia, His Excellency General the Honourable David

Hurley AC DSC (Retd), and Her Excellency Mrs Linda Hurley. The messages were warmly received by participants and lifted spirits and built excitement for their participation in the program in January. The congratulatory messages can be viewed on the NYSF website.



The congratulatory messages can be viewed on the NYSF website by scanning the QR code.



The Governor-General of Australia, His Excellency General The Honourable David Hurley AC DSC (Retd) and Her Excellency Mrs Linda Hurley

## During the program

### Owned channels

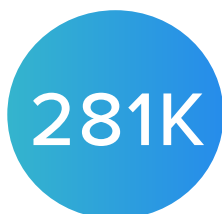
The NYSF website and social media channels showcased the wide range of exciting events and activities we delivered throughout January. Scan the QR codes below to read some of the blog articles about the program.



Posts across  
our social media  
platforms



NYSF website  
news articles



People reached  
on social media  
during January



A new look for the  
2021 NYSF Year 12 Program



Looking back at the  
2021 NYSF Year 12 Program



The 2021 NYSF Year 12  
Program - the regional  
edition

### Media attention

The 2021 NYSF Year 12 Program achieved excellent media attention:

- The Canberra Times, WIN News Canberra, The Newcastle Herald, and The Newcastle Weekly covered in-person STEM visits in Canberra and Newcastle
- ABC Radio Adelaide interviewed the NYSF CEO and a participant about their experience
- ABC Radio New England North West interviewed one of our Student Staff volunteers at the Armidale STEM visit

A number of community print and online articles detailing participants' NYSF experiences were also published after the program concluded.



2021 NYSF Year 12 Program participants at The University of Newcastle in Newcastle  
Source: The Newcastle Weekly



## More opportunities for the NYSF partners

The 2021 hybrid program format saw the NYSF offer a range of new branding opportunities for NYSF partners.

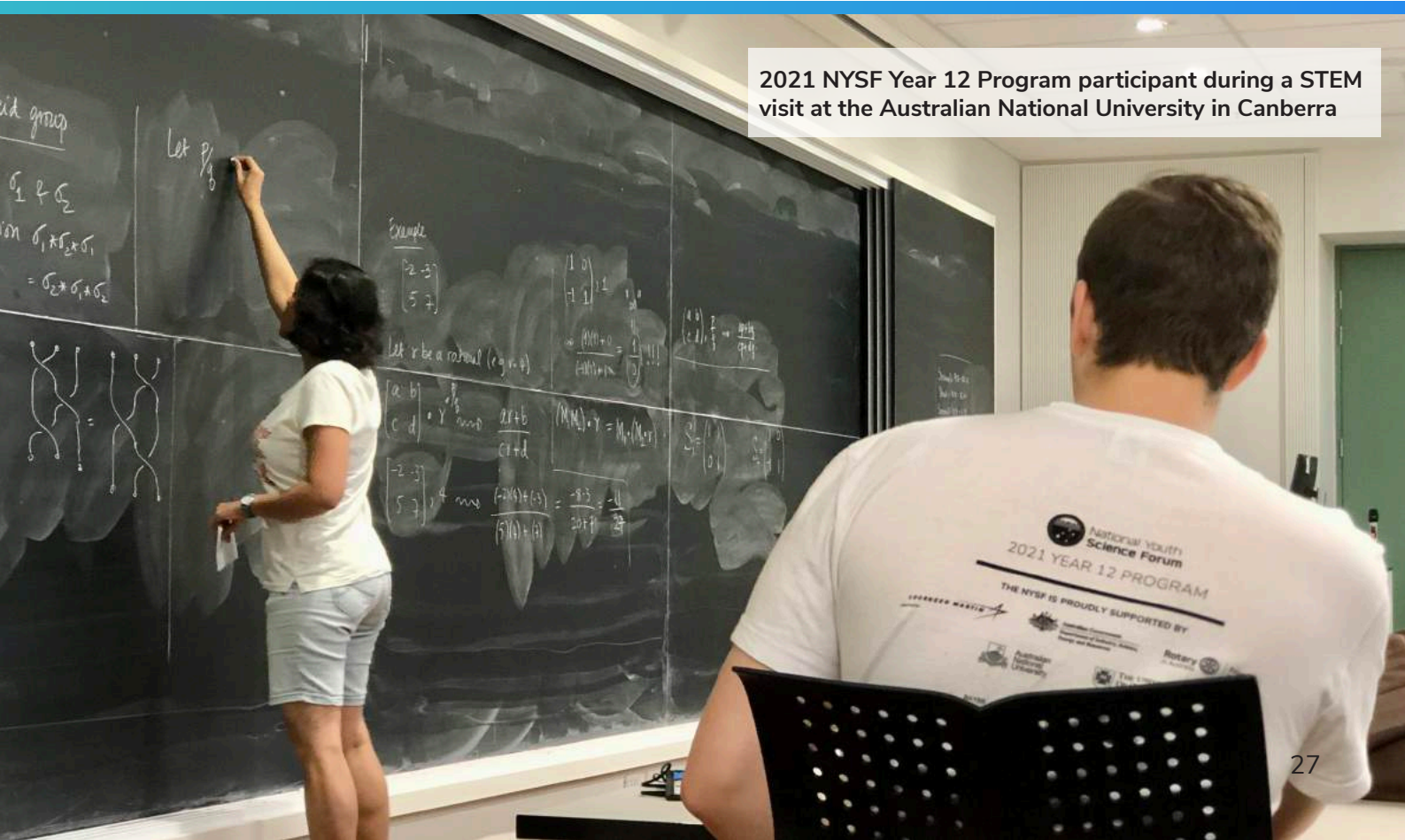
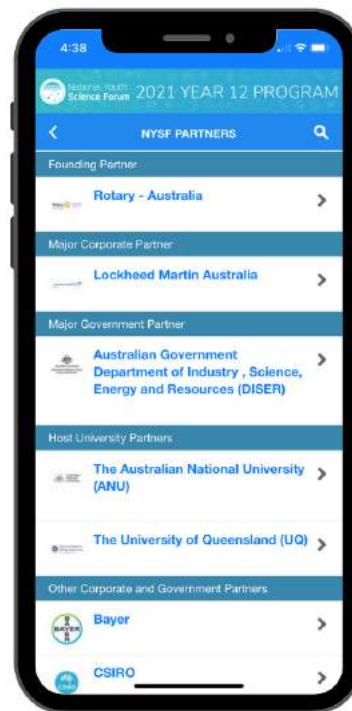
NYSF partners hosted sessions online and at their venues in-person around Australia, the first time many had the opportunity to do so. Partners also received two dedicated days for the 2021 Careers Days, where participants explored the numerous pathways into our partner organisations.

As well as featuring in sessions both in person and online throughout the program, NYSF partners were acknowledged for their support to further promote each organisation's work, celebrate our partnership, and drive traffic to their pages:

- extensively across the event app
- through links to partner pages and websites
- at the start of each live session in January
- at the beginning of each digital

session recording

- on the back of the official participant t-shirt
- across the NYSF website and social media channels and in the media



2021 NYSF Year 12 Program participant during a STEM visit at the Australian National University in Canberra

## NYSF Connect

We stay connected with our alumni through the NYSF Connect program. NYSF Connect provides resources, information, professional development, and networking opportunities to our 13,000+ strong alumni community.

Usually, we host face-to-face events across the country throughout the year, giving alumni the chance to catch up with

old friends, meet new alumni, and create connections that span careers. In 2020, we piloted a webinar series, featuring STEM experts and NYSF alumni speaking about their passions.


## NYSF Connect Webinar Series

Being unable to run in-person events in 2020 didn't stop the NYSF delivering opportunities and information to our alumni. In an ambitious move, the NYSF delivered 30 webinars in 30 weeks throughout 2020.

Launching in April 2020, the NYSF Connect webinar series was viewed by more than 740 alumni and featured 41 leading STEM professionals. These webinars, housed on a private page on our website only accessible to NYSF alumni, continue to provide professional development opportunities. We also featured experts from all NYSF partners, expanding on our value.

As an additional professional development opportunity, NYSF alumni were invited to host the webinars.

We thank our webinar guests for giving us their time and offering invaluable wisdom and advice to our alumni. We also thank our volunteer alumni hosts and NYSF staff who gave their time to run these webinars.

A screenshot of a video call featuring Dr. Cathy Foley. She is a woman with short brown hair and glasses, wearing a dark blue blazer over a light blue shirt and a teal tie. She is smiling and looking towards the camera. The background shows an office setting with a white door, a black office chair, and a bookshelf. A small blue pin is visible on her lapel.

Screenshot of then CSIRO Chief Scientist, Dr Cathy Foley AO PSM FAA FTSE, speaking during an NYSF Connect webinar





Screenshot of then Australia's Chief Scientist, Dr Alan Finkel AO FAA FTSE FAHMS, speaking during an NYSF Connect webinar

The whole session was interesting and absorbing. As many questions asked as answered.

**2020 webinar attendee**

Hearing the personal experiences of such an established scientist in the field was incredibly inspiring.

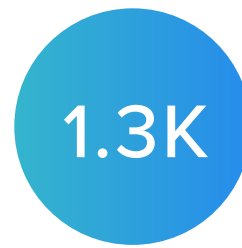
**2020 webinar attendee**



Average  
star rating



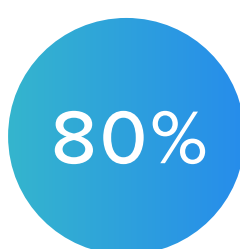
Webinars  
with 41  
guests



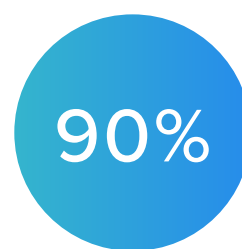
Online  
views



Live  
views



Found the  
webinars  
valuable



Recommend the  
webinars



Applied mathematician and 2005 NYSF alumna, Dr Sophie Calabretto



ABC Radio National host and science communicator, Robyn Williams AO



Australia's Chief Defence Scientist and 1990 NYSF alumna, Prof Tanya Monro



ABC weather presenter and 2001 NYSF alumnus, Nate Byrne

## Featured guests

Dr Cathy Foley AO PSM FAA FTSE  
 Dr Alan Finkel AO FAA FTSE FAHMS  
 Rod Drury  
 Professor Tanya Monro FAA FTSE FOSA FAIP GAICD  
 Nate Byrne  
 Professor Lachlan Blackhall  
 Professor Catherine Travis  
 Professor Sally-Ann Poulsen  
 Dr Brad Tucker  
 Dr Sophie Calabretto  
 John Pring  
 Dr Adi Paterson  
 Associate Professor Charley Lineweaver  
 Professor Jenny Graves AO FAA  
 Oliver Stuart  
 Brittany Brockett  
 Audrey Prasetya  
 Chun-Chia Chou  
 Associate Professor Rachel Allavena  
 Amgad Hanna  
 Renier van Zyl  
 Adrian McDonald  
 Professor Julie Arblaster  
 Dr Clare Kenyon  
 Robyn Williams AO  
 Jeffrey Greenhill  
 Dr Kirstin Morris  
 Dr Katie McGibbon  
 Associate Professor Belinda Ferrari  
 Professor Dane McCamey  
 Associate Professor Neeraj Sharma  
 Dr Andrew Johnson FTSE FAICD  
 Dr Monther Alhamdoosh  
 Dr Catherine Ayres  
 Vikram Sondergaard  
 Sophie Burgess  
 Namitha Sara John  
 Dana Pye  
 Lieutenant Commander Cameron Taylor  
 Lieutenant James Heydon  
 Varuni Fernando  
 Cameron Brimelow  
 Dennis Damsma  
 Upasana Pathak

Scan the QR code  
 to read more about  
 the NYSF Connect  
 webinar series  
 guests







2021 NYSF Year 12 Program participants during a STEM visit with BioBarcode in Perth

## NYSF Connect Online Careers Day 2020

During the 2020 NYSF Year 12 Program, bushfires led to the premature ending of Session A and the cancellation of Session C. This meant that these participants didn't get the opportunity to hear from and interact with NYSF partners during Careers Day, a popular feature of the program.

To ensure they had this chance, we organised an alternative three-day event: the inaugural NYSF Connect Online Careers Day. From 7 to 11 July 2020, nearly 300 freshly minted alumni logged into the event. Each NYSF partner organisation presented, answered questions, and spoke with alumni in smaller breakout groups.

This was an important opportunity to assist the 2020 alumni with their career and study choices towards the end of their year 12 studies and to discuss study paths that would lead them into potential employment opportunities with NYSF partners.

This was an extra deliverable for NYSF partners during the 2020-2021 financial year, followed by the 2021 NYSF Year 12

Program Careers Day which was delivered in a similar format for the whole NYSF cohort of 574 students.

We surveyed those who attended this additional event, and it was a major success. 87.5 per cent of alumni said the NYSF Online Careers Day expanded or helped confirm their study or career choices.

286

Total attendees

46K

People reached through live tweets







As someone not certain on what I want to go into in the future I found the breakout sessions were ideal for asking questions about their experiences, I found that the range of presenters all had valuable insights and they were able to provide helpful advice all-round.

**2020 Online Careers Day attendee**



I enjoyed learning about the career pathways into biomedical science or health and medicine from The University of Queensland.

**2020 Online Careers Day attendee**



## STEM outreach beyond **our regular programming**

### **National Science Week 2020: A week of webinars**

National Science Week is an Australia-wide annual celebration of STEM. Scientists and STEM professionals from around the country connect to host events, answer hard-hitting questions, and inspire STEM learning through interactive workshops for people of all ages.

Due to COVID-19 restrictions, like many other organisations, the NYSF went virtual to host events and engage the public in a wide range of STEM topics.

We showcased various webinars from the NYSF Connect webinar series in our Week of Webinars. We curated 14 webinars that are usually exclusive to NYSF alumni and made them freely available to the public.

Throughout our extensive social media channels and messaging, we reached more than 56,000 people during National Science Week and received more than 230 webinar views.



# Alumni on ABC's The Science Show

In January 2020, ABC Radio National presenter and The Science Show host Robyn Williams AO extended an invitation to all NYSF alumni from any year to be featured on his radio show.

Running since 2001, The Science Show is a weekly segment on ABC Radio National that delves into all areas of science from all kinds of people. It's a testament to the awareness of the NYSF that Robyn extended this opportunity to our alumni.

2019 NYSF Alumnus Max La Galle and 2000 NYSF Alumna Dr Amy McLennan from the Australian National University spoke about jobs, the future, new industries, and other industries transformed thanks to STEM developments and innovation.

Dr McLennan returned to the show the following week, joined by NYSF CEO Dr Melanie Bagg, to share their experiences with the NYSF Year 12 Program.

Scan the QR codes below to listen to their segments.



## Let Max tell you about fusion power

3 October 2020

Max shares the story of fusion power as a power source – the challenges, the promise, and why he wants to be involved.



## Designing our AI future

10 October 2020

Dr McLennan is working with the A3 Institute at the Australian National University and a group of researchers to lead the development of artificial intelligence with human values such as safety, responsibility, and sustainability at the forefront.



## National Youth Science Forum boosts young people keen on science

17 October 2020

Dr McLennan returns to The Science Show joined by NYSF CEO Dr Melanie Bagg to speak about the 2021 NYSF Year 12 Program. Dr Bagg gave a rundown of the program and Dr McLennan reminisced about her experiences on the program and the glimpse it gave her into her future.

# Financials

For the 2020-2021 financial year (1 April 2020 to 31 March 2021), the NYSF ended the year with a surplus of \$953,499. This followed the 2019-20 financial year's deficit of \$264,406.

The surplus for this financial year is due to several factors. We started the year frugally and deliberately aimed for a surplus to restore our reserves after the significant operating loss in the prior year. We reduced any costs we could, particularly underspending on travel, events, marketing, and a number of our usual staffing and office overheads.

To further mitigate the situation, NYSF pursued several one-off payments via an extensive insurance claim following the bushfires of 2019-2020 and COVID-19-related payments. We successfully received an insurance payment and government COVID-19 support in the form of JobKeeper and Cash Flow Boosts.

Surplus was achieved through targeted interventions whilst maximising the impact of a hybrid program through COVID-19. Overall, we finished in a stronger position

than anticipated due to one-off payments which strengthened our financial position.

It is important to note that this is not a reflection of our financial situation going forward and will enable us to restore NYSF contingency reserves that were expended at a time of crisis, ensuring the future viability of the organisation as it continues to grow and adapt in a quickly changing environment.

Our recovery would not have been possible without the many NYSF partners, supporters, and donors who have stuck with us at a very challenging time. We express our deepest thanks for their ongoing support.

To access the full financial report, download it from the Australian Charities and Not-for-profits Commission by scanning the QR code.





## Financial breakdown for 2020-2021

| Item                                      | Amount (\$)        |
|---|--------------------|
| Program attendance fees                   | 914,169            |
| Partnership income                        | 542,045            |
| Insurance income                          | 352,661            |
| COVID-19 Stimulus                         | 261,950            |
| Government grants                         | 140,000            |
| Program application fees                  | 45,609             |
| Donations                                 | 4,417              |
| Merchandise sales                         | 3,186              |
| Interest                                  | 2,319              |
| <b>Total income</b>                       | <b>2,266,357</b>   |
| Program-related expenses                  | (63,050)           |
| Administration expenses                   | (139,757)          |
| Marketing and merchandise expenses        | (11,210)           |
| Staff salaries and other related expenses | (1,068,309)        |
| Other expenses                            | (30,532)           |
| <b>Total expenses</b>                     | <b>(1,312,858)</b> |
| <b>Total surplus</b>                      | <b>953,499</b>     |