

PROGRAMME REPORT



WITH



INNOVATIVE YOUNG MINDS (IYM) RESIDENTIAL 2022 WITH FNZ



Discover. Connect. Be Inspired.

Our story

Innovative Young Minds (IYM) offers young women in Years 11 and 12 the opportunity to learn about the wide range of research and career opportunities available in STEMM (science, technology, engineering, mathematics and high-tech manufacturing).

Now, more than ever, we need to inspire talented people to invent new ways of living. To build a better future for everyone, the next generation of innovators need to reflect our diverse society. This is why it is so important to encourage more young women to get involved in science and technology.

In July 2022, 40 young women from the Greater Wellington Region took part in our six-day residential programme and were inspired by local researchers, innovators and entrepreneurs who are themselves making cutting-edge advances in STEMM.

After a week of seeing incredible opportunities available in science and technology first-hand, these young women are now ready to become New Zealand's next generation of innovators and industry leaders.





Our numbers

57

applications for
the programme

40

Year 11 and 12 young
women took part

100%

were satisfied with
the programme

100%

said the programme
increased their interest in
pursuing a STEMM career

100%

would recommend the
programme to a friend

20

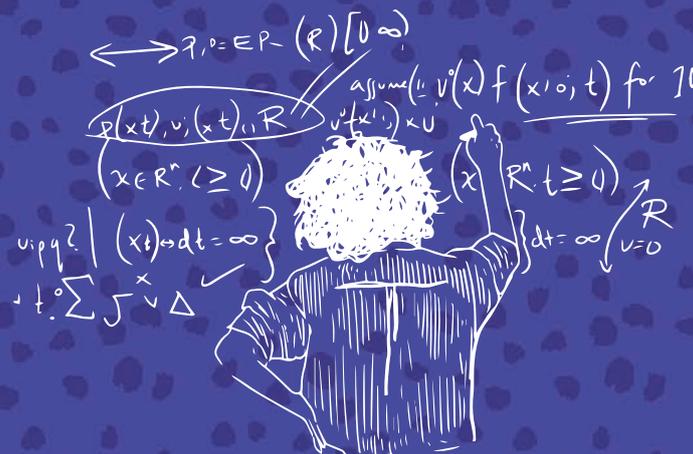
high schools from the
Wellington Region were
represented

100

contributors from 25
STEMM organisations

544

young women impacted
by IYM since 2017





Our programme

Site visits

Weta Cave

Discovering how imaginary movie worlds are brought to life through movie effects – from armour to weapons, creatures to costumes, make-up to miniatures.

MPI's National Biocontainment Laboratory

Exploring the state-of-the-art facility for MPI's infectious disease control.

Parliamentary Reception

Networking reception at Parliament hosted by Dr Ayesha Verrall, Minister of Science, Technology and Innovation. Attended by IYM supporters and industry leaders working in the science and technology sector.

Victoria University of Wellington Coastal Ecology Lab

Experiential site visit to Wellington University Coastal Ecology Lab (WUCEL).

Faculty of Science, Victoria University of Wellington

A tour of the Kelburn campus, including the new Biological Sciences building, Te Toki a Rata, as well as the chance to trial the VR headsets used as a part of teaching and learning in the Engineering faculty.

Finance technology company FNZ

Discovering how sustainability initiatives and artificial intelligence will influence the future.

Callaghan Innovation Quarter (GIQ)

A visit to Callaghan Innovation included experiencing one of the quietest places on earth - the anechoic chamber, plus the Ferrier Research Institute's chemistry lab, Measurements Standards light lab, and the Integrated Bioactive Technologies' lipid and live culture lab.



“People at Callaghan Innovation love to share their knowledge and expertise, and have a very positive perspective on encouraging the next generation so it is our pleasure to be part of your fantastic programme.”

Hayley Ellison, GIQ Programme Team, Strategic Planning Lead, Callaghan Innovation

Key highlights

Jackbord Robotics

Hands-on session with Jackbord, exploring electronics, science and robotics through building movable robots.

Astrobiology

Learning about space, the universe and the planets in New Zealand Astrobiology Network's amazing portable pop-up planetarium.

Peek Robotics

Robotics demonstration showcasing 'Grover', a robotic platform which can traverse many types of terrain and is adaptable to a wide range of agricultural tasks.

JDI

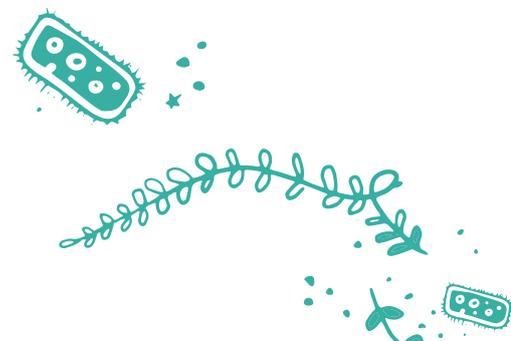
Networking session with business coach Gaylene Hughes, director of JDI. Students learnt the value of, and the how to, in building their own networks and gaining the confidence to approach people to support them in their career pathway.

Inspiring speakers from New Zealand Astrobiology Network, MPI Winkless Science Storytelling and Our Kids Online.

Innovation Challenge where student teams designed and pitched innovative smart city solutions to industry judges.

Team building, design thinking and mentoring sessions led by IYM alumna and mechanical engineer, Janis Baker.

High energy exercise sessions with fitness coach, Martine Carroll.





Our students' feedback



IYM further fueled my fascination to learn more about the STEMM area. This set in stone my choice to pursue the three sciences and a math as my Year 12 and 13 subjects.

Chiarella Yap, Year 11, Wellington Girls College

IYM 2022 has been one of the best opportunities I have ever had, I got to realise once again there are so many options and pathways for us to go into in STEMM. I realised that I should keep my options open, not just closing my eyes to one thing. Before going to this programme, I was only thinking about going into medicine, but now that I have looked at other fields of STEMM, I'm slowly starting to think about other things too. I thought working in a chemistry lab with all the chemicals or biology lab, researching the ocean creatures was very interesting.'

Anna Lee, Year 12, Newlands College



IYM made me want to continue learning in STEMM to peruse my computer science path. I also learnt that I have many choices available in the science/technology area. The space science was very interesting and may be a subject that I take next year.

Trinisha Patel, Year 11, Tawa College

I'm really interested in picking up earth and space science, as well as studying how past civilisations read stars and mapped them.

Anika Park, Year 12, Tawa College



After attending the programme and gaining exposure to many new areas of the STEMM sector that I hadn't had the chance to experience, I feel extremely inspired to continue to develop my STEMM understanding, not just through my subjects at school, but through personal research and exploration. The programme has shown me the value in broadening my skills, especially in the technology sector. Over the next few weeks I will begin a coding course to learn a new skill that is likely to be extremely beneficial for future careers in STEMM.

Louise Scriven, Year 12, Paraparaumu College

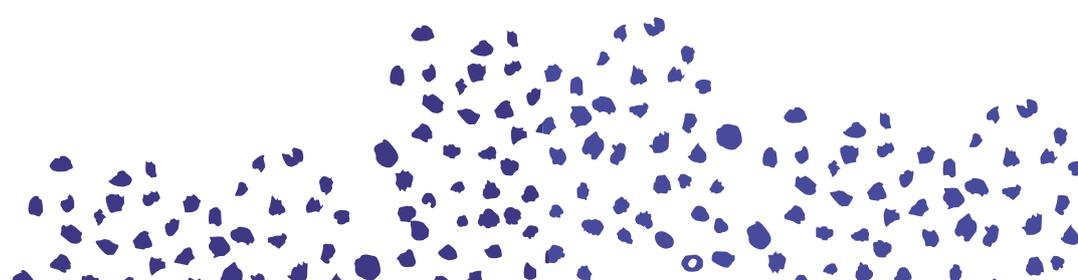
IYM helped me open my eyes to the huge amount of opportunities within the STEMM field and find jobs that I didn't even know existed. This taught me to keep my options open, as science isn't a set job, there are many different paths I could take!

Mia Brown, Year 12, Hutt Valley High School



The IYM Residential programme taught me so much and has opened my eyes to all the amazing opportunities and options in the STEMM world. I would have not have known how to properly advance myself in my career and I would not have known about opportunities such as internships and part-time jobs at some of these institutions. I cannot emphasise enough how grateful I am to be able to be a part of IYM Residential.

Thamar Smyrni, Year 11, Upper Hutt College





Our impact

We know IYM's programmes are making a difference. Each year we survey our programme participants and alumnae to measure our impact. We are genuinely interested in how IYM has influenced the many young women who have attended our programmes.



NEARLY

550

young women from around New Zealand have been impacted by IYM's programmes.



84%

of high school graduates who attended IYM are studying or working in STEMM.*



81%

of IYM attendees who are still at high school plan to pursue STEMM and 12% have yet to decide.*

IYM's mission is to break down barriers and encourage young women to enter the STEMM sector and to do so we must ensure that our programmes are as engaging and accessible as possible. This is only possible with the help of our dedicated sponsors and supporters. With our two annual programmes – IYM Online and IYM Residential – we look forward to making an impact on the lives of even more young women and creating a better future for everyone.

“Encouraging more young women to grow into successful leaders could change our society in profound ways that benefit people and the environment. Young people think of solutions that adults would never dream of. Investing in them might be the key to building a better world.”

Dr Catlin Powers, Namaste Foundation, Programme Sponsor

*2021 survey results

Our supporters – thank you!

IYM Residential 2022 with FNZ would not have been possible without our generous sponsors and supporters. Our programme was a success thanks to the valuable contributions made by:

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Naming sponsor



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-

Programme sponsors

- Allan and Trish Brown
- Namaste Foundation
- Silver Science Jewellery



IYM is also grateful to its dedicated volunteers and the 100 staff from 25 STEMM organisations who generously gave their time and knowledge.



See www.iym.org.nz for more information.

To find out more about the programme or how you can help, email us at info@iym.org.nz

Facebook: @iym.nz

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