



**A I M E R S**  
**F O U N D A T I O N**  
**C R E A T I N G I M P A C T**  
**- F O R A L L - B Y A L L**



**Quarterly Report May 2026**

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## AIMERS Foundation

Is a Technology Not-for-profit registered in Australia under ACNC on 17<sup>th</sup> September 2025. Its official Launch was on 31<sup>st</sup> January 2026 having the Former Chief Election Commissioner of India - Shri TS Krishnamurthy as the Chief Guest and special video message from the State Shadow Minister of Science & Technology – Hon. Jacqui Munro MLC.

Our work bridges access and ability—developing critical thinkers, innovators, and storytellers through Artificial Intelligence, Media, Emerging Fields, Robotics, STEM, and Space Technology.

Built on the belief that talent is universal but opportunity is not, AIMERS exists to create access, exposure, and meaningful pathways for learners of all backgrounds. By connecting education, innovation, mentorship, and real-world experiences, we ensure that individuals do not merely adapt to the future—but actively shape it. Our mission is to give **Dignity** to technologists of all ages.

We aim to enable more students to build startups, secure patents in their own names, and publish academic work—cultivating a vibrant, innovation-driven technology ecosystem and positioning Australia as a global innovation hub by 2050.

## Leadership

### Founder & President



AIMERS Foundation is founded by **Sukruti Narayanan**, who serves as Australian Ambassador & Global Head of Partnerships for Mission ShakthiSAT — a historic all-female-led lunar mission engaging 12,000 girls from 108 countries through 120 hours of hands-on STEM training — positioning young women at the forefront of global space participation.

She is appointed as an Expert reviewer for **UNESCO 8<sup>th</sup> Science report**.

In 2012, she co-founded and served as President of the Robotics and Artificial Intelligence Foundation (RAIF), pioneering grassroots technology access programs that reached over 500,000 students across 23 cities in India — with a strong emphasis on empowering underprivileged youth through robotics and AI education. Her leadership earned her the Young Visionary Award (PRCI) and recognition as one of India's Top 10 Women Technologists by TechStory

## Chairman



**Vivek Narayanan** is a technology leader with 17+ years of experience across FinTech, MediaTech, HealthTech, GameTech, and SolarTech, specialising in cloud-native platforms, DevOps transformation, and secure delivery at scale.

A serial entrepreneur and startup mentor whose heart is in giving opportunity & access to the younger generation through “Just do it” approach.

## Advisor Governance



**T. S. Krishnamurthy (Taruvai Subayya Krishnamurthy)** is one of India’s most distinguished civil servants, best known for serving as the 13th Chief Election Commissioner of India (2004–2005). With a career spanning over 36 years in public service, he is widely respected for his integrity, administrative excellence, and contributions to democratic governance, financial systems, and institutional reform.

## Advisor Innovation



**Tim Roberts** has 54 years of contribution to the University of New Castle. As President of the Hunter Innovation & Science Hub (HISH), Emeritus Professor Tim Roberts AM FRSN provides clear strategic leadership for the region’s flagship STEM-engagement organisation.

He drives HISH’s vision to build an inquisitive, future-focused Hunter community through science, innovation and hands-on learning. He forges partnerships across schools, universities, industry and community groups to expand access to STEM opportunities.

## Advisor Defence



**Jessie Reis** has a military background and is a graduate of the University of New South Wales (UNSW), holding a Bachelor of History and International Political Studies.

Jessie is passionate about the development of young Australians and is committed to applying creative, forward-thinking approaches to deliver meaningful outcomes that support diverse learning journeys.

## Advisor Policy Analysis



**B. Srinivasaprabhu** is a distinguished parliamentary expert and former Joint Secretary of the Lok Sabha Secretariat, Parliament of India, having served the Indian Parliament with distinction for over three decades in one of its most senior administrative and legislative roles.

Playing a critical role in guiding and managing parliamentary proceedings he also oversaw key operational aspects of the Lok Sabha's legislative processes and worked closely with Parliamentary Committees, contributing to the strengthening of democratic governance and legislative practice.

## Advisor Strategic Partnership



**Vinita Chanan** is the Executive Director, University Strategy at UNSW Sydney. She heads up the Strategy Office, working on implementation of UNSW's institutional strategy.

Previously, she was Director and Executive Lead, Strategic Alliances and Initiatives, responsible for developing impactful domestic and global partnerships and alliances in diverse sectors including engineering, health, digital education, quantum technologies and climate. Vinita also led the development of UNSW's Greater Sydney Strategy until July 2025.

## Advisor Global Leadership & Gender Equality



Dr. Srimathy Kesan is the only woman in the World to have launched 27 student led satellite missions till date and is the Founder and Mission director of an all female led Lunar Space Mission – ShakthiSAT.

She has won all the prestigious awards in the world for her work uplifting communities across the world especially girls with the hope and belief in themselves that they can be part of the Space. A true Visionary leader creating an army of young girls to lead and Unite their nations and World. Her previous mission was **AZAADISAT** bringing 750 rural girls from across the lengths and breadths of India and making them launch satellite. This laid the path to **Mission ShakthiSAT**.

## Advisor Research Ecosystem



Kshitij Mall is an Assistant Professor of Aerospace Engineering and the director of the BRAHMAND lab at the University of South Alabama. Previously, he held post-doctoral roles at the Center for Integrated Systems in Aerospace, Purdue University and Aerospace Engineering at Auburn University. He obtained his Ph.D. degree in 2018 and Masters degree in 2013 from the School of Aeronautics & Astronautics, Purdue University. He completed B. Tech. in Mechanical Engineering at JSSATE Noida in 2010 and then worked for a year at Infosys Technologies Ltd. as a Computer Systems Engineer Trainee. He has worked on projects with NASA, DARPA, SERC, the Mars Society, INSPACe, Government of India, Orissa Government, and Tata Steels. His research interests lie in the areas of

Systems Engineering, Atmospheric Flight Mechanics, Explainable Artificial Intelligence, and Human-Class Mars missions. He is a professional member of AIAA.

## Advisor Creative Communications



Triambak Sharma is a distinguished Indian cartoonist, editor, and cultural promoter who has played a pivotal role in shaping and promoting the art of cartooning in India and beyond. Known for his visionary leadership through creative expression, he is one of the most influential figures in the Indian cartooning community.

He is a Science/Maths graduate with a Diploma in Journalism and is known for publishing India's longest running cartoon magazine, *Cartoon Watch*, for three decades. He organised a 15-day cartoon exhibition at Nehru Centre London (2008) and represented India at the Global Cartoonist Forum in Paris, France, alongside cartoonists from 36 countries (2019).

## Advisor Science Inquiry & Critical Thinking & Editorial Board



**Tibor Molnar** is an accomplished autodidact whose career spans science, technology, research, and philosophy. He initially studied Chemical Engineering at the University of New South Wales (UNSW) and worked in industrial chemistry across the paint, rustproofing, and electroplating industries before moving into computing, where he led technology operations as Head of Computer Operations at Zurich Insurance for eleven years, followed by similar roles at BMA and FAI Insurance.

## Advisor Global Space Strategy



Rocío Caparrós is an independent expert in space policy, global governance, gender equality, and international outreach. She brings a strategic, cross-border perspective to AIMERS Foundation, helping to connect education, innovation, and community impact with global space and policy ecosystems.

## Advisor Engineering Impact



**Dr Fatemeh Salehi** is Associate Dean, Engagement and Sustainability in the Faculty of Science and Engineering at Macquarie University, and Hub Chair for the United Nations Academic Impact Sustainable Development Goal 15. With expertise in thermofluid modelling, her research focuses on low-carbon energy solutions, particularly data-driven models that support the safe, efficient and scalable deployment of clean energy technologies such as hydrogen.

She is also an Executive Committee member of the Combustion Institute, a member of the Scientific Advisory Committee of the \$329 million Blue Economy Cooperative Research Centre, and Chair of the Macquarie Park Sustainability Community of Practice, contributing to sustainability through industry partnerships and community engagement.

## Advisor Innovation Entrepreneurship



**Swarnajyoti Mukherjee** is a commercialization and business strategy professional with a strong track record across the Space and DeepTech sectors, spanning both industrial and entrepreneurial ecosystems.

In his role as a Commercialisation Officer at the European Space Agency, he advises European governments and innovation stakeholders on how to translate advanced technologies into viable commercial opportunities, while also supporting investment and ecosystem development across Europe.

He has mentored more than 50+ DeepTech startups, assessed 200+ startups proposals, including ventures connected to international incubators (from USA, Europe, and India) and innovation platforms (from Industry in USA to Government India's Start-Ups initiatives), and brings a practical understanding of what it takes to move from technology potential to commercial traction.

## Advisor Corporate Affairs & Chair – Student Leadership Council



**Michele Lemmens** is Founder of The Longevity Lens and a senior executive with a track record of igniting and delivering strategic and operational outcomes across complex, multi-stakeholder environments.

Most recently APAC CTO and Head of Business Sustainability at Tata Consultancy Services (TCS), Michele has partnered with C-suite leaders across mature and emerging markets to drive impact at the intersection of technology, sustainability, and innovation. Her work spans pioneering ESG initiatives, building innovation ecosystems, and launching purpose-driven ventures globally, including establishing a women-only business process centre in Saudi Arabia. She is known for bringing structure to complexity and momentum to ideas that matter, consistently translating ambition into tangible outcomes.

She has established and scaled eight strategic ventures from concept across corporate, startup, academic, non-profit, and government ecosystems, shaping vision, designing innovative models, and building partnerships to unlock shared value across ANZ, Singapore, HongKong, Saudi Arabia, the UK, & wider Asia.

## Advisor STEM Ecosystem Development & Collaboration



**Dr Frederick Osman** is a highly respected educational leader with over 30 years of distinguished experience across tertiary and secondary education, recognised for driving transformative initiatives that shape educational practice, strengthen governance, and improve student outcomes. His leadership spans the education, community, and industry sectors, where he has successfully led cross-functional teams, developed strategic partnerships, and collaborated with a broad range of stakeholders to advance innovation and excellence in education.

**Dr Osman** currently serves as Associate Director (Academic) for the Boston University Study Abroad Sydney Program, where he oversees academic governance, program development, faculty, internships, and the operational management of academic initiatives. In this role, he ensures the delivery of academically rigorous and globally engaged programs that integrate experiential learning with international education.

## Advisory Council

### Chair



**Veena Nair** is an award-winning STEM educator, consultant, strategic advisor, and systems-thinking specialist with over 30 years of experience working across schools, universities, industry, and government-linked initiatives in Australia and internationally. She supports organisations to design future-ready learning, workforce pathways, and innovation programs that respond to rapid technological change while addressing persistent equity gaps.

Veena is the recipient of the Prime Minister's Prize for Excellence in Science Teaching (2022) and has advised on curriculum reform, systems engineering pathways, sustainability education, and industry–education partnerships at state, national, and international levels. She has served on curriculum review panels, judging bodies, and advisory committees influencing STEM participation and policy outcomes.

### Co-Chair



**Professor Scott Sleap** is a senior STEM education leader with the NSW Department of Education, where he leads large-scale programs that connect schools with industry, universities and community partners to expand opportunity for students across New South Wales.

He is Professor of Practice (STEM) at the University of Sydney and an Honorary Professor at the University of Newcastle, bringing deep expertise in education, research, and outreach. Scott holds a PhD in Environmental Engineering and is widely recognised for his impact as a STEM teacher and system leader, including receiving the Prime Minister's Prize for Excellence in Secondary Science Teaching, the University of Newcastle Alumni National Leadership Award, a Winston Churchill Fellowship, a Commonwealth Bank Teaching Fellowship, and the BAE Systems Global Chairman's Award.

## Corporate Advisory Council



**Dr. Shankar Sivaprakasam** founder- Eartheye Space, a space-tech company that provides near-real-time situational awareness of Earth and space from space. The company is a member of the Seraphim Space and CDL-Space cohorts. Shankar was a co-founder of Antaris Inc., a venture-backed startup, and consulted for leading NewSpace companies before becoming an entrepreneur. Previously, Shankar was a vice president at Planet Labs, and held leadership positions at Hewlett-Packard and OpenText. He graduated in Computer Science and Engineering from IIT Kanpur and holds an EMBA and PhD from the University of Technology Sydney, Australia.



**Mithilesh Bandiwdekar** is a global technology entrepreneur, AI strategist, and thought leader with over two decades of experience in building and scaling intelligent digital solutions. He is the driving force behind Softlabs Group and Ainfinit Ai, where he leads the development of advanced AI-driven platforms, enterprise automation systems, and next-generation digital infrastructure for global clients.



**Sakthikumar R** is the Founder and CEO of OrbitAID Aerospace Private Limited, an emerging Indian space technology company at the forefront of on-orbit servicing, satellite refueling, and orbital infrastructure development. A visionary leader and accomplished aerospace engineer with over 15 years of experience in research, innovation, and technology development, he is driving transformative solutions for a more sustainable and resilient space ecosystem. He holds a Master's degree in Space Engineering and Rocketry from BIT Mesra. Sakthikumar began his career at the Indian Institute of Science (IISc), Bengaluru, where he spent nearly a decade working on advanced spray systems, satellite propulsion, and rocket propulsion technologies—building a deep foundation in high-impact aerospace research.

### Teacher's Council - Advisor (Canberra)



**Paula Taylor** is the recipient of the 2025 Prime Ministers' Prize for Science Teaching and the President of the Australian Science Teachers Association. Paula has a BMLSc, BEd, and MEd from Canada which has led to 30 years of exemplary classroom teaching in Science from K to 12.

She is a system-wide leader in STEM education in the ACT where she mentors and coaches educators to plan and deliver authentic STEM programs that align with Australia's priority areas. Paula is dedicated to raising the profile of the teaching profession through her advocacy work with industry, peak bodies and government.

### Teacher's Council – Chair (Griffith)



**Ian Preston**, HFTGN, BEd (Industrial Arts Technology) (Hons), is a nationally and internationally recognised STEM education leader with three decades of sustained contribution to teaching, system leadership, and STEM education innovation within NSW Dept. of Education.

He is the Founder and Lead of the Murrumbidgee Academy of STEM Excellence (MASE) and the NSW Virtual STEM Academy (NSWVSA), initiatives that have significantly expanded access to advanced, industry-connected STEM education for students across regional, rural, and remote

### Teacher's Council – Vice Chair of Outreach (Dubbo)



**Abelman Garwe** is an accomplished STEM educator who currently serves as a Mathematics and Science Teacher at Dubbo Christian School in Australia, where he combines inquiry-based learning with explicit direct instruction to deliver strong academic outcomes across Stages 4 and 5.

Ableman brings a global perspective to education, with experience across diverse systems in Zimbabwe, Bahrain, South Africa, and Australia. His experience spans multiple international curricula, including Cambridge IGCSE and A-Level, International Baccalaureate (IB), BTEC Engineering, and the NSW curriculum.

### Advisor AIMERS AI Pillar – Quantum



**Farai Mazhandu** is Founder and Director of the Africa Quantum Consortium (AQC), leading cross-continental quantum strategy across Africa, the U.S., and global partners. Trained in experimental quantum physics at the Colorado School of Mines and the University of the Witwatersrand, he brings 15+ years across quantum research, education, and institutional strategy – mobilizing talent, aligning policy, and building durable quantum capability at continental scale.

### Advisor AIMERS Pillars – Cyber Criminology



**Nakshathra Suresh** is a cyber criminologist, entrepreneur, academic and international speaker based in Sydney, Australia. She is currently the only criminologist in Australia actively advocating for artificial intelligence and emerging technology safety, bringing a unique social science perspective to digital safety challenges. Her primary areas of expertise include privacy, digital literacy and wellbeing; cybersecurity and surveillance on social media and internet-based platforms; stranger-based cybercrime (including technology-facilitated violence); emerging technologies (including IoT) and AI-facilitated harms; and bridging technology innovation with safety, ethics and responsible development.

### Advisor AIMERS Media Pillar – Science Journalism



**Andrew Curran** is a Sydney-based journalist specialising in aerospace. He currently runs his own business producing industry reports and print news articles about commercial aviation in the Southwest Pacific.

Andrew also has extensive experience covering the space and defence sectors, primarily focusing on emerging Indo-Pacific markets, but also covering the big space and defence economies such as China, the United States, and Europe.

## Advisor AIMERS Media Pillar – Creative Media



**Danny Muller** is a media and entertainment professional with a background in news, factual and reality TV content, along with an extensive body of work in music and sound for film, podcasting, games, and the music industry.

## Advisor AIMERS Emerging Fields Pillar & Editorial Board



**Dusya Lyubovskaya** serves as Global Ambassador at IPRI.Tech AG, where she advances international partnerships for Ultra High Temperature Pyrometallurgy™, enabling next-generation industrial processing, critical-materials recovery, and breakthrough materials innovation.

Through The Thorium Network, Dusya supports international cooperation and education focused on safer, more sustainable nuclear-energy pathways for both emerging and developed economies. She also contributes to OrdinalGold, driving the ethical tokenization of in-ground gold reserves through blockchain transparency and Web3-based asset-verification frameworks.

## Advisor AIMERS STEM Pillar



**Ben Newsome** is a pioneer in STEM education and the founder of Fizzics Education, which has inspired 4 million students since 2004. A 2013 Churchill Fellow and UTS Chancellor's Award recipient, Ben specialises in science education outreach and links to industry career pathways.

He co-founded Virtual Excursions Australia to produce digital live education programmes and the AVA Challenge to bring space design thinking to students across Australia and beyond. Beyond teaching, Ben is a casual academic at Western Sydney University, host of the FizzicsEd Podcast, and author of 'Be Amazing!'.

## Advisor AIMERS Space Tech Pillar



Iver Cairns has over 30 years of experience in space physics and space weather research, with over 400 written and published refereed papers. His primary contributions relate to the growth and saturation of plasma waves, especially Langmuir waves, the generation of radio emission in association with shocks, and associated space weather. He is a Co-Investigator on NASA's STEREO mission and, since June 2019, on NASA's two new SMEX missions, PUNCH and TRACERS.

In Australia he led the 2010-2019 Decadal Plan for Australian Space Science. Since then he has worked to "put runs on the board" to convince Governments to invest in the space sector. He led the INSPIRE-2 CubeSat project, which launched in May 2017 and re-entered still working in November 2018. For 2017–2025, but continuing now as a research collaboration, Prof. Cairns led CUAVA (the ARC Training Centre for CubeSats, UAVs, and Their Applications), training people, solving research problems, and working on commercial outcomes for its industry, academic, and governmental partners. CUAVA's 1st CubeSat, CUAVA-1, was deployed from the International Space Station in October 2021. He also leads the Waratah Seed project, Australia's 1st ride-share satellite project. His satellites CUAVA-2 and Waratah Seed-1 launched in August 2024 and are both operating successfully in space.

## Advisor AIMERS Space – Astronomy Pillar & Editorial Board



**Marilena Salvo** is a PhD at the Australian National University under Nobel Laureate Professor Brian Schmidt. Her research focused on supernovae, using some of the world's most advanced telescopes in Europe, Chile and Australia to study the Type Ia supernovae that were used by two Nobel-winning teams to discover the accelerating expansion of the universe. Marilena now works at CSIRO Space and Astronomy, part of Australia's national science agency. The research unit leads major national and international programs in radio

astronomy, space science and technology development. In this environment she brings together her scientific background, systems thinking and organisational leadership to support research programs and cross-sector collaboration.

## Special Council



Dr Abha Suri is a distinguished academic, community leader, and elected Councillor with over 30 years of experience in leadership, governance, and higher education across Australia and internationally. With qualifications in leadership, management, education and coaching, she has built a career centred on empowering individuals and communities through inclusive leadership, education, and innovation.

As an independent Councillor, she brings a thoughtful, values-driven approach to public service, advocating for sustainable development, community wellbeing, and meaningful collaboration. She is particularly passionate about supporting programs that advance STEM education, emerging technologies, and equitable access to opportunity - resonating strongly with AIMERS Foundation's vision of empowering the next generation of thinkers, builders, and leaders.

## Make A Mark - Student Academic Journal

### Editorial Chair



**Dr. T V Gopal** has published around 90+ research papers. He has written four books and co-edited eleven conference proceedings. He is actively associated with many professional societies such as CSI, ICANN, IFIP WG 9.2, IEEE, and ACM India Council. He is an expert member of the Editorial Advisory Board of the International Review of Information Ethics (IRIE), the official journal of the International Centre for Information Ethics (ICIE). Dr. T V Gopal served as Director, Centre for Applied Research in Indic Technologies (CARTI), Anna University (<https://www.annauniv.edu/CARIT/>) until retirement on superannuation

### Editorial Board Member



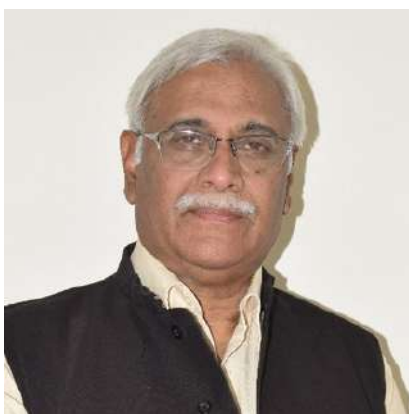
**Dr. Sarika Kewalramani** is an Associate Professor in STEM Education at Swinburne University of Technology & the Department of Education, School Partnerships Lead. She has been a primary/secondary STEM teacher for 10+ years in Australia. Her versatile experiences in PreK-12 contexts & affiliation with primary and secondary public & independent schools/preschools in Victoria, including being a secondary school's Head of Science Domain (2010-2014) guides her research to enhance STEM education opportunities for disadvantaged communities focusing on girls' STEM belonging & early engagement.

### Editorial Board Member



**Dr. Agarkar** has conducted pioneering research in the field of science and mathematics education. Some of the areas of his research are: Instructional Strategies, Use of technology in education, Teacher professional development, etc. His special interest lies in the education of the socially deprived students. Working with disadvantaged students in Mumbai & tribal areas in Maharashtra he has developed Remedial Instructional Strategy to facilitate learning of science & mathematics among socially deprived sections of the society. This work has received international recognition & he receives invitations both from developing as well as developed countries to present his research.

### Editorial Board Member



**Prof. Arun Kumar Pujari** joined as Advisor & Professor Emeritus, Department of CSE, Mahindra University in November 2020. His academic journey includes earning a Ph.D. from IIT Kanpur. He played pivotal roles in various advisory capacities, contributing to decision-making committees of organizations such as DST, UGC, AICTE, DOS, & more. Notably, he served as the Chairman of the Executive Committee on Conservation of Indian Heritage & Related Matters at DST. His involvement extends to serving as a member of the Programme Advisory & Monitoring Committee (PAMC) on the Technology Fusion & Application Research (TFAR) Program of DST, Government of India. Prof. Pujari actively participated in the development of TechDome for the Central Vista Project, chaired by the Principal Scientific Adviser (PSA) to the Government of India. He has over 100 publications to his name & has supervised more than 20 doctoral students.

## Message from the Founder

Sukruti Narayanan - Founder & President, AIMERS Foundation

AIMERS Foundation was established to address growing gaps in access, participation, and representation across science, technology, engineering, media, emerging technologies, and innovation ecosystems. The main purpose of the Foundation is to give **dignity** to the technologists of all ages.

Registered as an Australian not-for-profit under the Australian Charities and Not-for-profits Commission (ACNC), the Foundation focuses on creating equitable pathways for students, educators, migrant professionals, technologists, researchers, and communities to participate meaningfully in future-focused industries.

Australia continues to face significant workforce shortages across STEM and digital sectors. At the same time, many skilled migrant professionals remain underemployed or employed outside their trained disciplines due to barriers including local experience requirements, professional recognition challenges, limited networks, and access pathways. This represents both a workforce challenge and an underutilisation of technical capability at a national level.

AIMERS Foundation was established with the objective of helping bridge these gaps through collaboration between education, industry, government, media, research, and community stakeholders.

The Foundation also recognises the increasing importance of science communication, media literacy, ethical storytelling, and public engagement in an era shaped by artificial intelligence, digital platforms, misinformation, and rapidly evolving technologies.

Research presented in my paper titled “*Bridging the Void Between Science & Journalism in the Glo-cal Space Era*”, published at an international conference in Finland, highlighted the need for stronger engagement between scientific communities and public communication ecosystems. Improving science communication capability is increasingly important to strengthening public understanding, critical thinking, and participation in emerging technologies.

AIMERS Foundation therefore operates as a multidisciplinary and collaborative platform rather than a single-sector initiative. The Foundation currently brings together advisors and contributors from academia, education, policy, media, science, space technology, artificial intelligence, entrepreneurship, sustainability, and industry ecosystems to identify challenges, develop collaborative pathways, and support innovation-focused engagement programs.

The Foundation's activities focus on:

- STEM and emerging technology outreach,
- girls' participation in STEM,
- science communication,
- student leadership,
- innovation and entrepreneurship,
- ethical AI awareness,
- media literacy,
- future workforce capability development, and
- regional and community engagement.

Mission ShakthiSAT, a global all-female-led lunar mission engaging 12,000 girls from 108 countries through STEM and satellite learning initiatives, has become one of the major collaborative platforms through which AIMERS Foundation supports participation in space education and future-focused learning pathways, particularly for students from underrepresented communities.

AIMERS Foundation believes that addressing future workforce, innovation, and participation challenges requires long-term collaboration across sectors. The Foundation supports practical, community-based approaches that connect young people, educators, industry leaders, researchers, policymakers, and community organisations to emerging opportunities in science, technology, and innovation.

Australia possesses significant capability, talent, and institutional strength across these sectors. The challenge moving forward will be ensuring that access to opportunity, participation, and future workforce pathways remains inclusive, collaborative, and equitable across all communities.

Sukruti Narayanan  
Founder & President  
AIMERS Foundation

## Advisory Members Notes – The Challenges & Opportunities

### Advisory Council Chair Report – Veena Nair

## REIMAGINING STEAM EDUCATION IN AUSTRALIA

### *Engaging Girls, Migrants and Undervalued Communities in Emerging Fields*

AIMERS Foundation is a newly established national foundation dedicated to ensuring every young Australian — regardless of gender, background, cultural heritage or postcode — has access to transformative STEAM education and the opportunity to contribute to the industries defining Australia's future.

The Foundation was established by leaders drawn from industry, academia, the space sector and the community. Our founding programs focus on space education as a gateway to integrated STEAM learning, connecting directly to Australia's growing strategic and economic interests in the space sector. The Foundation's model is built on convergence: structurally uniting industry, academia, students, educators and government in genuine, sustained partnership — not one-off events, but the deep collaboration that shifts what is possible for every learner we reach.

As the Co-Chair of Advisory Council, I see AIMERS Foundation having an important role in supporting Australia's future in this regard

### **The Issues: Where Australia Is Failing**

- **Curriculum Built for Yesterday**

Australia's schools remain largely organised around discrete subjects assessed on content knowledge and skills in isolation — mathematics here, science there, technology separate from both. This model was designed for a 20th-century economy built on specialisation. It does not equip young Australians for a world that demands integrated problem-solvers who can move fluidly across disciplines, apply knowledge to genuine challenges, work collaboratively with people unlike themselves, and learn, unlearn and relearn across careers that do not yet exist.

The subjects and approaches that develop these capabilities — hands-on project work, entrepreneurial thinking, design and the arts, integrated challenges — are consistently treated as enrichment extras rather than core entitlements. Students who access them tend to be those who already have the most advantages. This is both an equity failure and a national strategic failure.

## **Girls: A Pipeline That Leaks at Every Stage**

Despite years of awareness and targeted programs, the STEAM gender gap remains deeply entrenched. Women represent only 15% of all people working in STEAM jobs in Australia. Girls make up just one quarter of Year 12 enrolments in information technology, physics and engineering — the gateways to the industries of the future. The 2023–24 Youth in STEM survey found no improvement in girls' sense of relevance of STEAM to their futures, suggesting that current approaches are not reaching the attitudes and aspirations that determine long-term participation.

Of women who completed STEM university degrees in 2011, only 31% were working in STEM occupations a decade later, compared to 56% of men. The system is not just failing to attract girls — it is failing to retain the women it does develop. The cost, in lost talent and diminished innovation, compounds every year.

The disciplines where the gap is widest — AI, robotics, space and advanced engineering — are precisely the fields where Australia most urgently needs capability. We are losing the people most likely to bring fresh perspectives to these fields at exactly the moment those perspectives matter most.

## **Migrants: Australia's Most Undervalued Pool**

Approximately 30% of Australia's population was born overseas. Migrants and their children contribute enormously to Australia's scientific, medical and engineering workforce — yet this community is one of the most systematically underserved by our STEAM education system. The barriers are multiple, compounding and largely invisible to mainstream policy.

### **Barriers that lock talent out**

- Language barriers that make navigating enrichment programs, school systems and career pathways harder, particularly for newly arrived families
- Socioeconomic pressure — especially for refugee and humanitarian arrivals — that pushes young people towards immediate employment rather than extended education
- Credential non-recognition that traps highly qualified migrant professionals outside the industries they trained for, preventing them from modelling STEAM careers to their children
- Curriculum that does not reflect or validate diverse cultural knowledge systems, signalling implicitly that STEAM is not a universal endeavour
- Bias in gifted and talented identification and STEAM enrichment selection that systematically disadvantages students from non-English-speaking backgrounds
- Lack of access to the informal networks through which STEAM opportunities are most often distributed — the parent who knows a researcher, the teacher who runs the robotics club

## **The asset Australia is squandering**

The other side of this picture must be stated with equal force. Migrant students bring extraordinary strengths that Australia is not yet leveraging. Multilingual learners demonstrate enhanced cognitive flexibility and pattern recognition — capabilities directly relevant to complex, cross-disciplinary problem-solving. Students who have navigated life between cultures carry resilience, adaptability and a sophisticated understanding of diverse human experience that is the very foundation of empathetic technology design.

Many migrant communities come from countries with deep cultural traditions of valuing education and scholarship. These families bring exceptional motivation when given genuine access to high-quality STEAM learning. And increasingly, migrant students carry direct connections to the global communities that will be the users and co-designers of the technologies Australia develops — a strategic asset for any nation that wants to build technology that genuinely serves humanity.

Australia is simultaneously experiencing critical STEAM skills shortages and sitting on a vast, largely untapped pool of motivated migrant talent. This is not just an equity failure. It is a strategic failure of the first order. *The World Is Not Waiting*

While Australia deliberates, other nations are acting decisively. India's National Education Policy 2020 mandated robotics as a compulsory subject for Classes 8 to 10 nationally from 2025–26. Kerala became the first Indian state to implement this for all 430,000 Class 10 students from June 2025, distributing 29,000 robotic kits and training nearly 10,000 teachers before rollout — deliberately ensuring rural and regional schools were not left behind. Finland has embedded cross-disciplinary, phenomenon-based learning at every level. Singapore mandates integrated applied learning projects. Estonia introduced coding into primary school in 2012. South Korea has made AI education compulsory at secondary level.

The common thread across these examples is not just curriculum content — it is a fundamental conviction that education exists to develop young people who can shape a world that does not yet exist. Australia has the talent, the institutions and the values to lead this shift. What has been missing is the policy ambition.

## **How the Foundation Is Poised to Help Space as the Gateway**

The Foundation uses space education through the immensely successful Mission ShaktiSat program as the entry point for integrated STEAM learning — and the choice is deliberate. Space captures the imagination of young people across every cultural background with near-universal force. It genuinely demands integration

across mathematics, physics, engineering, computing, biology and social science. It connects to Australia's growing strategic interests through the Australian Space Agency. And it offers a horizon expansive enough to include every kind of learner.

Our programs are not aimed to teach students about space as passive recipients of information. Students are placed in the role of engineers, scientists, mission planners and communicators — working on genuine challenges. From the outset, programs are designed to be actively welcoming to girls, indigenous and migrant students and students from regional and lower-socioeconomic communities.

Katherine Bennell-Pegg — Australia's first astronaut under the Australian flag, 2026 Australian of the Year, selected from over 22,500 ESA applicants — grew up dreaming of space on Sydney's Northern Beaches and built more than twelve years of experience across six countries before making history. She is now dedicated to inspiring the next generation and demonstrates precisely what becomes possible when ambition is met with genuine opportunity.

*"I have always dreamed of being an astronaut. When I was young, it was for the adventure, but after more than a decade working in space, it's now because I know the role it plays in tackling real-world problems and developing new knowledge that can benefit our society, environment and science."*

— Katherine Bennell-Pegg, Australian Astronaut and 2026 Australian of the Year

## The Convergence Model

The Foundation's defining contribution is its convergence model: the deliberate, structural uniting of five worlds that too often operate in parallel without genuine connection. Industry partners bring real problems, real tools and real career pathways into classrooms — not as occasional guest speakers but as co-educators invested in outcomes. University researchers bridge the gap between school learning and higher education, offering pathways that many especially migrant students have never before been able to see clearly. Students are co-designers of programs, not passive recipients — with girls and migrant students specifically sought as design partners, because their perspectives are most often missing from the systems meant to serve them.

Teachers receive sustained professional learning and ongoing communities of practice, not one-off workshops. And government is engaged as a design partner in building the policy architecture and investment cases that make systemic change possible.

The history of STEAM reform in Australia is full of excellent programs that did not scale and inspiring pilots that did not persist — typically because they were designed in isolation from the systems they needed to change. Convergence addresses this structurally. When industry, academia, students, educators and government are all invested in the same outcomes, the conditions for scale and sustainability are fundamentally different. The Foundation is not designed to be another program. It is designed to be a platform that changes what is normal.

## **The Graduates We Are Developing**

The Foundation's programs are oriented around a clear vision of the graduate Australia needs especially in the age of AI: someone who is technologically fluent and unafraid of the new; mathematically and scientifically grounded with the rigour to model real problems; a genuine collaborator who can work across disciplines and across difference; an entrepreneurial thinker who identifies unmet needs and builds solutions that persist; and — perhaps most importantly — someone whose innovation is guided by genuine empathy for the communities they serve.

Empathy is not a soft skill. It is the most critical design requirement for technology that actually works. An AI system built without understanding of bias will entrench discrimination. A space technology designed without understanding its users will fail in deployment. Empathy can only be developed through genuine encounter with difference — which is exactly why migrant inclusion in STEAM is not peripheral to the Foundation's mission. It is central to it. Diverse teams build better solutions. Students who understand diverse communities design more powerful technologies. Inclusion is not a constraint on excellence. It is a prerequisite for it.

Grace Brown —University of Melbourne graduate, startup founder of Andromeda Robotics is an excellent example of Empathy meets Robotics. She embodies in every dimension what this Foundation exists to cultivate: rigour, adaptability, entrepreneurial spirit and a commitment to something larger than individual achievement. She, like Katherine Bennell-Pegg, is proof of what becomes possible when education opens doors widely enough.

Many more are waiting in the wings — including young women from migrant families who have never yet seen themselves reflected in a STEAM career. The Foundation exists to find them, show them what is possible, and build the structures that let them fly.

Veena Nair  
Co Chair – Advisory Council  
AIMERS Foundation

## Advisory Council Chair Report – Professor Scott Sleep

As Co-Chair of the AIMERS Foundation Advisory Council, I see one of our most urgent national challenges as also one of our greatest opportunities: how we prepare young people for a world of work being reshaped by artificial intelligence, automation, data, advanced manufacturing, cyber security, space technologies and digital systems.

New South Wales is projected to face a shortage of 85,000 digital workers by 2030, and Australia will need around 1.3 million technology workers by 2030 to meet industry demand. This is not simply a technology workforce issue. It is an education, equity, productivity and national capability issue.

The education system is being asked to prepare students for jobs, industries and civic challenges that are changing faster than traditional school structures can easily match. The World Economic Forum's *Future of Jobs Report* identifies growing demand for technological literacy, artificial intelligence and big data skills, creative thinking, resilience, flexibility, agility, curiosity and lifelong learning. These are not skills for a small group of future engineers or programmers. They are foundation skills for all students, whether they pursue a STEM career or not.

The challenge is that access to strong STEM learning is not evenly distributed. Students in regional, rural and remote communities continue to face barriers linked to access, resources, facilities, technology and specialist programs. The Australian Government's Department of Education reports that the average 15-year-old from remote Australia is around 1.5 years behind metropolitan students in science.

The 2025 Australian Digital Inclusion Index also shows that around one in five Australians are excluded or highly excluded from digital participation, with digital inclusion remaining higher in capital cities than outside them.

This digital divide is not just about devices. It is about confidence, connection, affordability, digital ability, access to mentors, and access to meaningful learning opportunities. For many students, particularly those in low socioeconomic communities, regional and remote areas, and schools without established STEM programs, the gap is widened by limited access to advanced technologies, specialist teachers, and industry experiences.

A major part of the solution must be to focus on students who have been traditionally underrepresented in STEM industries. This includes girls, students from culturally and linguistically diverse backgrounds, students from low socioeconomic backgrounds, and students from regional, rural and remote communities. **These students are not a deficit group. They are an untapped national talent pool.**

The STEM Equity Monitor continues to show the importance of tracking and improving participation by girls and diverse groups in STEM. In senior secondary mathematics, only 37.5 per cent of students undertaking higher mathematics were female, despite girls making up around half of Year 12 students. This shows that aspiration alone is not enough. Students need visible pathways, role models, encouragement, access and sustained opportunities.

This is where AIMERS Foundation plays an important role. AIMERS helps plug gaps in the education system by connecting students to high-quality STEM opportunities that may not otherwise be available through their local school.

Programs such as Mission ShakthiSAT, a global space education initiative empowering 12,000 girls from 108 nations through hands-on satellite projects and STEM training, demonstrate the power of online, real-world and internationally connected learning.

For students who have aspiration but limited local opportunity, these programs can be transformative. They provide access to knowledge, technical learning, mentors, industry connections and authentic projects. They also help students see themselves as contributors to future industries, rather than passive observers of technological change.

The work of AIMERS is also important because it brings together education, industry, government and community leadership. Solving the STEM and digital skills shortage cannot sit with education systems alone. Industry has a responsibility to open doors, provide expertise and create visible pathways. Government has a role in building system conditions and equity. Education provides the foundation. AIMERS sits in the powerful space between these sectors, turning goodwill into opportunity.

The future workforce will need young people who can think critically, solve complex problems, create, collaborate, communicate, adapt and keep learning. STEM is one of the strongest vehicles for developing these capabilities because it places students in situations where they must test ideas, work through uncertainty, design solutions and apply knowledge to real problems.

I joined AIMERS because of its commitment to young people who are too often missed. Its mission is not simply to promote STEM, but to create access to inspiring, real-world opportunities for students who may otherwise be left outside the orbit of future industries.

I commend the work of the AIMERS Foundation founders, the Advisory Council members, teachers, student advisers, corporate partners and supporters. The Foundation brings together some of the brightest minds and most passionate

advocates for young people that I have worked alongside, united by a shared commitment to creating opportunities and improving futures for the next generation.

The challenge before us is significant, but the opportunity is even greater. If we can connect underrepresented students with high-quality STEM experiences, industry mentors, digital capabilities and future-focused pathways, we will not only help address critical workforce and skills shortages, but also build a fairer, safer, more creative and more prosperous Australia for future generations.

Professor Scott Sleap  
Co Chair – Advisory Council  
AIMERS Foundation

### **Advisor – Strategic Partnership Report – Vinita Chanan**

#### **Issues facing universities and students in building the STEM pipeline**

As technology advances at a rapid pace impacting economies and productivity, universities around the world are facing increasing pressure to strengthen STEM pipelines. The challenge is no longer simply increasing STEM enrolments, but ensuring graduates are prepared for success and have the skills needed to work in environments increasingly shaped by AI, digitisation and interdisciplinary problem-solving.

Concerns are emerging about declining participation<sup>1</sup> in advanced mathematics and science, changing workforce needs<sup>2</sup>, and widening educational inequities. These trends are already affecting current school and university students, many of whom are experiencing increased uncertainty about future careers, uneven digital capability, and growing pressure to develop both technical expertise and broader human skills such as creativity, collaboration and adaptability.

In Australia, these challenges are compounded by shortages of qualified STEM teachers, uneven school preparedness, and persistent underrepresentation of women, Indigenous Australians, regional students and students from low socioeconomic backgrounds across several STEM disciplines. When students face structural barriers relating to access, aspiration, cultural belonging and financial security, it results in lower confidence and reduced participation in advanced STEM subjects.

University students from underrepresented backgrounds often face higher attrition risk, financial pressures and weaker senses of belonging within STEM disciplines.

Universities are responding to this by putting in place focussed outreach, pathway programs, student support and developing inclusive learning environments that improve participation, retention and success.

At the same time, demand for advanced technical capability in areas such as AI, engineering, cybersecurity and data science continues to accelerate. With declining STEM capability and increasing demand for interdisciplinary, adaptive and human-centred skills, universities are under pressure to redesign curricula, strengthen industry engagement, expand work-integrated learning, and support flexible education and lifelong learning. University students place a high value on employability, work integrated learning and confidence that their qualifications will remain relevant in a rapidly changing labour market.

These issues are also increasingly linked to national competitiveness and sovereign capability. The strategic imperative for universities is to build integrated and inclusive STEM ecosystems that connect schools, research, industry and lifelong learning linked to workforce skills needs, while ensuring the benefits of technological transformation are broadly shared across society and improve outcomes for both current and future students.

### **Corporate Council Advisor Report – Mithilesh Bandiwdekar**

As the Founder of Ainfinit Ai, an Artificial Intelligence company delivering AI-driven solutions across manufacturing, logistics, infrastructure, smart cities, industrial safety, and enterprise automation, I have had the opportunity to closely observe the rapid acceleration of AI adoption across industries globally. The company operates under the umbrella of Softlabs Group, which brings over 23 years of industry legacy and experience in delivering technology, digital transformation, and enterprise solutions across multiple sectors and international markets.

Through our growing establishment and expansion into Australia, we also recognise the increasing importance of building a responsible, future-ready AI ecosystem that balances innovation with education, ethics, workforce preparedness, and social inclusion.

From an industry perspective, one of the most significant realities today is that AI advancement is progressing substantially faster than societal preparedness.

While organisations across sectors are actively exploring AI for productivity, automation, analytics, and operational transformation, several critical structural challenges continue to emerge:

## 1. AI Literacy Deficit

2. There remains a **substantial gap in public understanding of Artificial Intelligence**. Many educators, parents, institutions, businesses, and even policymakers are still navigating the fundamental implications of AI technologies, including their capabilities, limitations, ethical considerations, and long-term societal impact.

## 3. Future Workforce Readiness

Industries are already facing a shortage of AI-ready talent and digitally skilled professionals. The challenge extends beyond software engineering into operations, governance, safety, compliance, infrastructure management, and decision-making functions. Current education systems globally are struggling to evolve at the pace required by emerging technologies.

## 4. Ethical and Responsible AI Adoption

The increasing integration of AI into education, workplaces, public systems, and decision-making environments raises major concerns around misinformation, bias, privacy, cybersecurity, deepfakes, algorithmic accountability, and safe AI usage. Responsible AI governance and awareness are becoming essential societal requirements.

## 5. Unequal Access to Emerging Technology Education

Without inclusive and accessible AI education frameworks, there is a growing risk of widening technological inequality between urban and regional communities, and between socio-economic groups. Equitable access to AI and STEM learning is critical for long-term national competitiveness.

## 6. Overdependence on AI Without Critical Thinking

As generative AI tools become widely available, there is a concerning trend of overreliance on AI-generated outputs without sufficient emphasis on validation, reasoning, factual analysis, and human judgement. Future education systems must ensure that AI enhances critical thinking rather than replacing it.

It is precisely in addressing these long-term societal and educational challenges that organisations like AIMERS Foundation play a highly important role.

From my perspective, AIMERS Foundation represents a forward-looking model for preparing future generations for an AI-driven world through a balanced combination of Artificial Intelligence, STEM education, robotics, innovation, ethics, creativity, and space education initiatives for children and young learners.

As Ainfinit Ai establishes its presence in Australia, we see strong alignment with AIMERS Foundation's mission and believe that collaboration between industry and educational organisations will be essential in building a sustainable and responsible AI future.

Through its programs and outreach initiatives, AIMERS Foundation can meaningfully contribute by:

- Building foundational AI literacy from an early age, enabling students to understand not only how to use AI tools, but also how AI systems function, their limitations, risks, ethical implications, and societal impact.
- Creating accessible and inclusive pathways for AI, STEM, robotics, and space education across diverse communities, helping reduce future digital inequality.
- Encouraging innovation, scientific thinking, creativity, and problem-solving capabilities required for the next generation workforce.
- Promoting responsible and ethical AI awareness, including digital safety, misinformation detection, cybersecurity awareness, and human-centric technology usage.
- Bridging the gap between industry and education by exposing students to real-world applications of AI, automation, emerging technologies, and future industries.
- Supporting long-term national capability building by helping prepare future innovators, researchers, entrepreneurs, engineers, and technology leaders.

As someone working directly within the AI sector, I strongly believe that the future competitiveness and resilience of nations will depend not only on technological infrastructure and investment, but equally on how effectively societies educate, prepare, and empower future generations to responsibly innovate with Artificial Intelligence.

The conversation around AI must therefore extend beyond technology adoption alone. It must include education, ethics, accessibility, inclusion, workforce readiness, safety, and long-term societal preparedness.

In this regard, initiatives such as AIMERS Foundation can play an important role in shaping a responsible, inclusive, and innovation-driven future for upcoming generations in Australia and globally.

Mithilesh Bandiwdekar  
Corporate Council Advisor  
AIMERS Foundation

## Teacher's Council Advisor Report – Paula Taylor

### Key messages

1. The Australian Science Teachers Association and its state members have been running science fairs across the country over its 75 year history. The fair is targeted toward students in Years 6 to 12 to develop and submit their own scientific investigations and engineering projects that have the potential to solve society's most urgent challenges. On average, the fair receives 8,000 projects with 12,000 students participating each year.

Male and female students are equally represented as well as public and private schools. Annually, we receive 660 engineering projects that demonstrate ingenuity and innovation, and in some cases are ready for market and IP protections.

2. After 38 years, BHP Billiton Foundation, the sole funder, and CSIRO, the program manager, ceased their involvement in the program. This has presented an opportunity to develop a new vision for the program that focuses on organising an in-person fair with national representation of approximately 300 youth, which includes a commitment to diversity and equitable inclusion from each SA4 region. This will allow for Indigenous knowledge systems to be equally prominent at the fair. The numbers since the funding ceased remain strong and continue to grow.

3. This program focuses on identifying, inspiring, and engaging the nation's most promising youngest emerging scientists who are already demonstrating an aptitude and talent in STEM. This program is a pathway for Australian youth to attend ISEF, the international science and engineering fair where they have historically performed exceptionally well (eg. Oliver Nicholls, NSW, Yr 12 - ISEF Grand Prize Winner for 2018 for inventing a robot to clean skyscrapers).

Science fairs are transformative for young people when they connect and are inspired by like-minded peers, meet and receive feedback from STEM professionals, and receive recognition and higher education pathways for their novel research.

4. Currently there is no similar program occurring in Australia that showcases and celebrates the thousands of students across the country who are working scientifically to publish and communicate with the public about their unique research findings. This is Australia's best opportunity to conduct a talent search of students who continue to demonstrate their intellectual abilities and interest in being part of Australia's STEM pipeline.

## Talking Points

- The Australia Wide Science Fair will continue to be overseen by the Australian Science Teachers Association using a similar framework that is used in Canada (over 500K participants each year), which is based on equal representation across each electorate region where students come together for a national fair to be

- (a) selected for the ISEF team

- (b) showcase their work to the general public and STEM professionals and

- (c) receive university scholarships and prize money across Years 7-12

- (d) and community level and national recognition for their achievements

- In March 2026, ASTA conducted its final virtual science fair as we transition to an in-person event in 2027 which could be hosted in the ACT or NSW for a 3-day event. This year's grand finalists were interviewed by a panel of academic researchers, STEM professionals from education and industry. Of the 8,000 projects completed in 2025, ASTA was able to recognise the outstanding achievements of 102 student finalists from Years 5 to 12.

Two Year 9 students were awarded the UNICEF Australia Award for developing a humanitarian-related STEM project.

- Three Year 12 female students were awarded the Grand Awards for Ingenuity, Innovation, and Inquiry, respectively, two of whom were from NSW schools (one regional and one metropolitan area).

- ASTA has added **AIMERS Foundation** as a partner for the iCubed Awards who has provided opportunities for the finalists to showcase their projects through:

- Conducting individual student interviews

- Publishing student research in a publication developed by AIMERS

- This partnership will forge new opportunities for underrepresented students to participate in the in-person fair.

- The fair encourages all students across Australia to engage in active, authentic, independent science or engineering research projects that promote curiosity, critical thinking, communication, and collaboration. It also serves as an opportunity for ASTA to develop partnerships with mentors to support young scientists as they develop their research skills

Paula Taylor

Teacher's Council Advisor

AIMERS Foundation

## **Make A Mark – Student Academic Journal – Editorial Chair**

Working with Students to improve their reporting of works is an important task. "Make - A - Mark" from AIMERS Foundation has begun the task to make Students mature into Science Communicators. It equips them to combat misinformation, improves critical thinking, and prepares the next generation of informed citizens and innovators to tackle societal challenges. The Student specific Academic Journal "Make - A - Mark" helps them develop a strong "science identity" - allowing them to see themselves as active participants in the scientific community rather than just passive consumers of facts.

**- Dr. T V Gopal, Editor - in - Chief. Make - A - Mark, AIMERS Foundation**

## **Emerging Fields Pillar Advisor Report – Dusya Lyubovskaya**

Emerging technologies are advancing faster than many education systems, industries and communities are prepared for. Artificial intelligence, advanced manufacturing, clean energy systems, space technologies, biotechnology, digital infrastructure and automation are already reshaping the global economy, workforce and society itself.

The challenge is not simply technological innovation. The challenge is ensuring that people are not left behind while the world changes around them.

Many students and communities still face barriers to accessing future-focused education, digital literacy, mentorship, industry exposure and real-world opportunities. In regional, rural and underserved communities, the gap is often widened by limited access to technology, specialist programs and global networks.

At the same time, industries are facing growing shortages of skilled workers capable of operating within increasingly advanced and interdisciplinary environments.

Another major challenge is that emerging industries require not only technical skills, but also adaptability, ethical thinking, collaboration, creativity and the ability to work across cultures and disciplines. The future workforce must be prepared not only to use technology, but also to responsibly shape how these technologies impact humanity, sustainability and global development.

This is where AIMERS Foundation plays an essential role.

AIMERS helps bridge the gap between education, industry and future opportunity by creating access to real-world STEM experiences, mentorship,

innovation programs and international collaboration. It gives students exposure to industries and technologies that may otherwise feel distant or inaccessible.

Importantly, AIMERS recognizes that talent exists everywhere, even where opportunity does not. By supporting students from underrepresented and underserved communities, AIMERS helps unlock future innovators, scientists, engineers, researchers and leaders who may otherwise never have had access to these pathways.

As someone working at the intersection of emerging technologies, clean energy, advanced materials and global collaboration, I believe the future depends on building inclusive ecosystems where innovation and human development advance together.

The industries of tomorrow will require more than technical excellence alone. They will require ethical leadership, resilience, adaptability and global cooperation. By connecting young people to meaningful opportunities today, AIMERS is helping build a more innovative, sustainable and inclusive future for the next generation.

Dusya Lyubovskaya  
Emerging Fields Advisor  
AIMERS Foundation

## Media Pillar Advisor Report – Andrew Curran

### **Challenges in the modern media ecosystem: how AIMERS Foundation is responding**

The modern media ecosystem is facing a period of rapid disruption and transformation. Artificial intelligence, social media algorithms, declining trust in institutions, misinformation, digital inequality, and changing workforce demands are reshaping how information is created, distributed, and consumed.

At the same time, these challenges are creating new opportunities for organisations focused on education, innovation, and digital capability building.

According to the AIMERS Foundation Advisory Council Co-Chair, Scott Sleaf, one of the most urgent national challenges is preparing young people for a world increasingly shaped by artificial intelligence, automation, cyber security, advanced manufacturing, data systems, and emerging technologies.

This transformation is not simply changing industries. It is changing society itself, including the media sector. Traditional journalism and communications are

increasingly intersecting with artificial intelligence, data analytics, automation, and digital platforms.

### **Why ethical storytelling matters more than ever**

There is a substantial amount of recent research and industry data showing declining trust in media, rising misinformation concerns, and growing demand for ethical, transparent storytelling.

- In New Zealand, trust in media fell from 53% in 2020 to 32% in 2025 before recovering slightly to 37% in 2026.
- According to the 2025 Governance Institute of Australia Ethics Index, between 20% and 25% of Australians now regard social media platforms as “very unethical”.
- Only 24% of Australians have received any form of news literacy education.

People are increasingly disengaging from news because they find it overwhelming, negative, or untrustworthy. But research shows younger audiences still value ethical and trustworthy journalism. Eighty three percent believed investigative journalism was important and 61% believed journalism plays a vital role in society.

Experts increasingly argue that ethical storytelling is essential because modern media ecosystems influence democracy, education, trust institutions, youth identity and behaviour.

AIMERS is responding to the need for ethical story telling. The challenge is no longer simply producing content quickly. It is producing content responsibly. AIMERS does this by:

- Verifying information before publication.
- Providing context rather than outrage.
- Reducing harm and misinformation.
- Amplifying diverse and underrepresented voices.
- Building trust with audiences, and
- Encouraging critical thinking and media literacy.

### **AI, algorithms, and the new media landscape**

Audiences now consume information through social media feeds, short-form videos, influencers, podcasts, AI-generated summaries, and algorithm-driven recommendation systems rather than relying solely on traditional newspapers or television broadcasters.

The result is a media environment that moves faster than ever before, but one that is also more fragmented and more vulnerable to misinformation and manipulation.

One of the biggest challenges in the current ecosystem is the growing spread of misinformation and disinformation. Artificial intelligence tools are now capable of generating highly convincing text, images, audio, and video at scale. Deepfakes and synthetic media are becoming increasingly difficult for ordinary users to identify, raising concerns about public trust, democratic participation, and the integrity of online information.

At the same time, media literacy skills are not developing evenly across the population. Many young people are entering a digital-first environment without the critical thinking skills needed to evaluate information sources, identify manipulated content, or understand how algorithms influence visibility and engagement.

There is also unequal access to strong STEM and digital learning opportunities. Students in regional, rural, and remote communities continue to face barriers linked to access, technology, resources, specialist teachers, and industry programs. The average 15-year-old from remote Australia is around 1.5 years behind metropolitan students in science, while around one in five Australians are excluded or highly excluded from digital participation.

### **Bridging the gap in digital literacy and STEM**

This digital divide has significant implications for the media ecosystem. Participation in modern media increasingly depends on access to digital tools, technical skills, connectivity, confidence, and mentorship. Without these, many students risk being left behind not only as consumers of media, but also as future creators, innovators, and leaders within digital industries.

This challenge extends beyond technology alone. The divide is also about affordability, confidence, digital ability, access to mentors, and meaningful opportunities.

The modern workforce increasingly requires a blend of technical and human skills. Future demand will centre on technological literacy, artificial intelligence, big data skills, creative thinking, resilience, flexibility, curiosity, and lifelong learning. These capabilities are directly relevant to the future of journalism, media production, communication, and digital storytelling.

This is where AIMERS Foundation is attempting to make a meaningful contribution.

Rather than viewing artificial intelligence and digital disruption purely as threats, AIMERS approaches them as opportunities to empower students with future-focused capabilities.

Importantly, the foundation focuses heavily on equity and inclusion. AIMERS places immense importance on supporting groups traditionally underrepresented in STEM industries, including girls, students from culturally and linguistically diverse backgrounds, students from low socioeconomic communities, and students from regional and remote areas.

This focus matters because the future media ecosystem will require a broader and more diverse range of voices, creators, and innovators. If access to digital capability remains concentrated among privileged communities, existing inequalities within media and technology industries will only deepen.

### **Turning students into creators, not just consumers**

AIMERS is taking a practical approach to achieving this by publishing Make a Mark, a student academic journal, and developing AIMERS Toons. Both provide young people with a digital pathway to learn about science. Importantly, both encourage young people to participate in the pathway, that is, to have science focused content published, not merely consume it.

These underrepresented students are untapped national talent pool. This philosophy reflects a broader shift away from viewing education purely through traditional academic pathways and towards recognising the importance of inclusive participation in future industries.

One example is Mission ShakthiSAT, a global space education initiative involving 12,000 girls from 108 nations through satellite projects and STEM training. Programs such as these demonstrate how digital learning and internationally connected projects can help students develop technical knowledge, communication skills, collaboration abilities, and confidence.

These experiences are increasingly important in a media environment where storytelling, technology, and global connectivity are closely linked.

The AIMERS Foundation also recognises that solving future workforce and media challenges requires collaboration between education, industry, government, and community organisations. Industry has a responsibility to open doors, provide expertise, and create visible pathways, while governments and education systems must support equitable access and opportunity.

This collaborative approach is significant because no single institution can solve the current challenges facing the media ecosystem alone. Schools cannot independently keep pace with rapid technological change. Governments cannot regulate every emerging technology in real time. Media organisations cannot rebuild trust without broader community engagement and education.

AIMERS attempts to bridge these sectors by connecting students with mentors, authentic projects, industry experiences, and future-focused learning pathways. STEM education is one of the strongest vehicles for developing critical thinking, creativity, collaboration, adaptability, and problem-solving skills. These are also among the most important capabilities required within modern journalism and digital communications.

### **Building a more resilient media future**

Ultimately, the challenges facing the media ecosystem are deeply connected to broader social, educational, and technological change. Artificial intelligence, digital inequality, declining trust, and workforce transformation are reshaping how societies communicate and engage with information.

AIMERS Foundation is responding by focusing on access, inclusion, education, and future capability building. Its mission is not simply to promote STEM, but to create meaningful opportunities for students who may otherwise be excluded from future industries.

The opportunity ahead is significant. By connecting underrepresented students with digital capabilities, mentors, and future-focused pathways, organisations such as AIMERS can help build a more inclusive, creative, informed, and resilient Australia for future generations.

Andrew Curran  
Media Pillar Advisor  
AIMERS Foundation

### **Advisor STEM Ecosystem Development & Collaboration Report – Dr. Fred Osman**

#### **The Teachers' Guild of NSW Reflections on Building Stronger Futures Through STEM Education**

The Teachers' Guild of New South Wales has continued to play an active role in supporting and strengthening STEM education across New South Wales through forums, partnerships, outreach initiatives, and collaborative engagement with educators, universities, industry representatives, scientific organisations, and community stakeholders.

A number of encouraging developments are taking place through The Teachers' Guild of New South Wales cross-sector STEM education activities. Strong

partnerships have emerged between schools, universities, professional associations, industry groups, and community organisations, creating valuable opportunities for collaboration, innovation, and shared learning. Initiatives such as the Teachers' Guild of NSW Frontiers of Science Forum, Guild Research Conference partnership with Universities, and the Innovation and Industry Forum have successfully brought together teachers, researchers, students, and industry leaders to explore emerging technologies, future workforce pathways, and the evolving role of STEM education in society.

These initiatives demonstrated the importance of connecting classroom learning with real-world applications and future career opportunities. Participants highlighted the value of strengthened professional networks, increased awareness of STEM pathways, and deeper collaboration between the education, research, and industry sectors. There is strong momentum and shared commitment among stakeholders to continue working collaboratively to improve STEM education outcomes across New South Wales.

The discussions also recognised the significant contribution teachers continue to make in engaging students in science, technology, engineering, and mathematics. Across schools and educational settings, teachers are demonstrating leadership, creativity, and dedication through innovative programs, practical learning experiences, and industry linked activities that help students develop critical thinking, problem-solving, collaboration, and future-focused skills.

At the same time, several opportunities for continued improvement were identified. Participants noted the importance of providing teachers with greater professional support, improved access to practical STEM teaching resources, and stronger recognition of the essential role teachers play in preparing future generations. Ongoing investment in teacher professional learning, collaboration opportunities, and wellbeing was recognised as critical to sustaining high-quality STEM education. Educational equity remains a key priority. While many students are benefiting from strong STEM opportunities, challenges continue to exist for regional, rural, and disadvantaged communities where access to resources, infrastructure, specialist programs, and advanced STEM pathways may be more limited. There was broad agreement that all students, regardless of background or geographic location, should have equitable access to quality STEM learning experiences and opportunities for future success.

Community awareness and engagement were also identified as important areas for ongoing development. Discussions highlighted the need to strengthen understanding of STEM pathways, careers, and real-world applications among families and the broader community. Improving public awareness of the value and relevance of STEM education will help encourage greater student participation,

aspiration, and long-term engagement in STEM-related fields.

The Guild also recognises the important role that strategic partners such as the **AIMERS Foundation** play in supporting the future direction of STEM education across New South Wales. Through collaboration with education providers, researchers, and industry leaders, AIMERS Foundation has the potential to contribute to innovation-focused learning, emerging technology engagement, industry partnerships, and future workforce development initiatives. Opportunities for collaboration may include supporting STEM outreach programs, teacher professional learning, student engagement initiatives, research dialogue, and programs that strengthen connections between education, artificial intelligence, innovation, and industry.

Importantly, partnerships with organisations such as **AIMERS Foundation** help strengthen educational equity by expanding access to STEM opportunities, resources, and innovation programs for regional, rural, and disadvantaged communities. Collaborative engagement across sectors can further support community awareness, future-focused learning pathways, and greater participation in STEM-related fields.

The Teachers' Guild of NSW remains committed to continuing this important work through partnerships, professional engagement, advocacy, and collaborative dialogue. Current priorities include acknowledging teachers through Guild awards and World Teachers' Recognition initiatives for their outstanding work, supporting teachers, strengthening connections between education and industry, expanding access to STEM opportunities for all learners, and promoting a more coordinated, inclusive, and future focused STEM education system across New South Wales. The Guild acknowledges and appreciates the valuable contributions of participating organisations, educators, researchers, industry leaders, and community partners whose ongoing support and collaboration continue to strengthen STEM education and inspire the next generation of learners.

Dr. Fred Osman  
Advisor STEM Ecosystem Development & Collaboration  
AIMERS Foundation

## Special Council Report - Dr Abha Suri

### A Local Government and Community Leadership Perspective

Independent Councillor & Special Council Member, AIMERS Foundation

The technology sector is rapidly transforming economies, industries, education systems, and communities across Australia and globally. Discussions surrounding Artificial Intelligence (AI), robotics, emerging technologies, STEM, space innovation, and digital transformation are increasingly shaping national priorities and future workforce strategies. However, these conversations are often dominated by universities, corporations, policymakers, and industry stakeholders, while one critical perspective remains underrepresented — the perspective of local government and community leadership.

As an independent Councillor and Special Council Member of AIMERS Foundation, I believe local government occupies a unique and essential position at the intersection of education, community wellbeing, infrastructure planning, youth engagement, social inclusion, and economic development. Councils are often the first to witness the real-life impacts of technological disruption and inequality within communities, yet they are rarely meaningfully integrated into broader innovation policy frameworks.

Australia's ambition to become a global innovation hub by 2050 will require more than technological advancement alone. It will require inclusive, community-centred innovation ecosystems that ensure equitable access to opportunity, skills, mentorship, and participation.

### Key Challenges Facing the Technology Sector

#### 1. The Growing Digital Divide

One of the most pressing challenges facing the technology sector is the widening digital divide between communities that have access to technological resources and those that do not. While metropolitan and privileged communities may rapidly adopt emerging technologies, many suburban, regional, culturally diverse, and disadvantaged communities continue to face barriers such as limited digital literacy, inadequate access to devices and infrastructure, lack of mentorship, and minimal exposure to future-focused industries.

Local governments frequently engage with families and young people who possess talent, curiosity, and aspiration but lack pathways into technology education and innovation ecosystems. Without intervention, technological advancement risks reinforcing inequality rather than reducing it.

## **2. Disconnect Between Innovation and Community Needs**

Technology conversations are often framed through the lens of economic growth, automation, and commercial competitiveness. However, insufficient attention is given to how emerging technologies can directly address community-level challenges such as youth disengagement, mental health, social isolation, sustainability, ageing populations, and workforce transition.

Councils are responsible for responding to these issues every day. Yet many local governments lack the partnerships, funding structures, and specialist expertise required to integrate innovation-driven solutions into community development initiatives.

This creates a significant gap between innovation policy and grassroots implementation.

## **3. Skills Shortages and Future Workforce Preparedness**

Australia continues to face critical shortages in STEM-related skills and emerging technology capabilities. However, the challenge extends beyond technical competency alone. It also includes confidence, representation, exposure, mentorship, and aspiration.

Many students, particularly young women, culturally diverse learners, and students from disadvantaged backgrounds, do not see themselves represented within technology leadership spaces. Schools and communities often struggle to provide practical engagement opportunities in AI, robotics, space technology, media innovation, entrepreneurship, and research pathways.

Without early intervention and sustained support, Australia risks overlooking significant untapped talent within its own communities.

## **4. Limited Cross-Sector Collaboration**

Another key challenge lies in fragmented collaboration between educational institutions, industry, government, and community organisations. Universities may prioritise research outcomes, corporations may focus on commercial objectives, and governments may emphasise policy delivery; however, community-level implementation often lacks coordinated partnerships.

Local governments are uniquely positioned to facilitate place-based collaboration because councils maintain direct relationships with schools, libraries, youth services, multicultural communities, local businesses, and residents. Despite this, councils remain significantly underutilised within broader innovation ecosystems.

## **The Role of AIMERS Foundation in Bridging These Gaps**

AIMERS Foundation represents an important and timely model for addressing these challenges through an inclusive, community-focused innovation framework.

Built on the principle that “talent is universal, but opportunity is not,” the Foundation recognises that technological advancement must be accessible to learners of all backgrounds and communities.

From a local government perspective, AIMERS Foundation can play a transformative role in several key areas.

### **Community-Based Technology Access**

The Foundation can partner with councils to deliver grassroots programs in AI, robotics, STEM, media literacy, and emerging technologies directly within local communities. Libraries, community centres, and council facilities can become accessible innovation hubs where students and families engage with future-focused learning opportunities.

This model is particularly important for communities where exposure to technology ecosystems may otherwise remain limited.

### **Strengthening Youth Engagement**

Youth disengagement remains an increasing concern across many communities. Technology and innovation programs provide meaningful opportunities to re-engage young people through creativity, entrepreneurship, collaboration, and problem-solving.

By encouraging students to build startups, secure patents, and publish academic research, AIMERS Foundation empowers young people to become creators, innovators, and future leaders rather than passive consumers of technology.

### **Supporting Equity and Inclusion**

Importantly, the Foundation’s work aligns strongly with the social inclusion priorities championed by local governments. Women in STEM, migrant communities, regional learners, and underrepresented groups require targeted opportunities, mentorship, visibility, and pathways into innovation sectors.

Inclusive innovation strengthens not only economic outcomes but also social cohesion, civic participation, and community resilience.

## **Mission ShakthiSAT: A Transformative Model for Inclusive STEM Leadership**

A powerful example of AIMERS Foundation's vision in action is *Mission ShakthiSAT* — a global, all-girls space education initiative designed to introduce school students to space science, satellite systems, systems thinking, and collaborative problem-solving through a real-world lunar satellite mission framework.

Bringing together 12,000 girls from 108 countries, Mission ShakthiSAT represents a groundbreaking model of equitable STEM engagement and future workforce development.

From a local government and community leadership perspective, initiatives such as Mission ShakthiSAT address multiple systemic challenges simultaneously.

Firstly, the mission tackles the longstanding underrepresentation of girls and young women in STEM and space technology sectors. While policy discussions around gender equity continue globally, meaningful participation requires more than statements of intent. It requires access, exposure, mentorship, confidence-building, and opportunities for practical engagement from an early age.

Secondly, the initiative demonstrates how emerging technologies can become tools for social inclusion rather than exclusion. Students participating in the mission are not only learning technical concepts; they are developing systems thinking, leadership capability, global collaboration skills, and cross-cultural understanding.

These are critical competencies for both future workforce readiness and responsible global citizenship.

Importantly, Mission ShakthiSAT also reflects the type of visionary educational engagement local governments seek to support but often lack the specialised ecosystem to independently deliver. Councils play a central role in youth development, libraries, learning spaces, and civic participation. Partnerships with organisations such as AIMERS Foundation create pathways for communities to access world-class innovation opportunities at a grassroots level.

The mission further highlights an important national consideration: Australia's future innovation leadership will depend not only on technological capability, but on how inclusively talent is nurtured across all sectors of society.

Programs such as Mission ShakthiSAT demonstrate that young people from diverse cultural, socioeconomic, and geographic backgrounds can actively contribute to global scientific and technological advancement when equitable opportunities are created.

As an independent Councillor, I believe initiatives such as Mission ShakthiSAT are not merely educational programs; they are nation-building platforms that cultivate aspiration, confidence, leadership, and innovation capacity in the next generation.

## **Conclusion**

The future of Australia's technology sector cannot be shaped solely through industry or academic perspectives. Community leadership and local government voices are essential to ensuring that technological advancement remains inclusive, ethical, accessible, and socially responsive. The greatest innovation challenge facing Australia is not simply technological capability, but equitable participation.

AIMERS Foundation demonstrates how collaborative, community-driven approaches can bridge gaps between education, governance, innovation, and opportunity. Through initiatives such as Mission ShakthiSAT, the Foundation is actively creating pathways for young people — particularly girls and underrepresented communities — to engage meaningfully with STEM, space technology, entrepreneurship, and global collaboration.

By empowering future innovators, strengthening local innovation ecosystems, and supporting inclusive community participation, AIMERS Foundation contributes meaningfully to Australia's aspiration of becoming a global innovation leader by 2050.

The future must not simply be designed for communities; it must be built with them.

Dr. Abha Suri  
Special Council  
AIMERS Foundation

## **STEAM Advisor Report – Ben Newsome**

### **STEM Outreach Perspective**

#### **Strengthening the STEM Pipeline: Outreach Challenges and Strategic Opportunities**

## Ben Newsome

STEAM Advisor, AIMERS Foundation | Founder, Fizzics Education | Co-founder, Virtual Excursions Australia | Co-founder, AVA Challenge

As the STEAM Advisor to the AIMERS Foundation, my perspective is grounded in over two decades of front-line science communication. Since 2004, Fizzics Education has reached more than **4 million students** across Australia. Our operations are extensive: we engage over **300,000 students face-to-face annually** and, in the last year alone, visited in person 20% of all Australian high schools across every State for a single national project.

I have been awarded the 2023 UTS Chancellor's Award, the Churchill Trust Fellowship (2013), and have been named Business Leader of the Year. Beyond delivery, I serve as a casual academic for the WSU School of Education and act as an Ambassador for ASET NSW. My work is dedicated to the principle that high-quality STEM education should be a right, not a geographical privilege.

### **Bridging the Gap: The Role of the AIMERS Foundation**

The AIMERS Foundation exists in the vital space between policy ambition and educational reality. While the barriers outlined in this report represent significant systemic challenges, AIMERS provides the bridge through Artificial Intelligence, Media, Emerging Fields, Robotics, STEM, and Space Technology.

Our work is built on the belief that while talent is universal, opportunity is not. We connect education, innovation, and mentorship to ensure learners do not merely adapt to the future—they shape it. By enabling students to build startups, secure patents, and publish academic work, we are cultivating a technology ecosystem that positions Australia as a global innovation hub by 2050.

"AIMERS turns potential into participation. We move beyond 'exposure' to provide meaningful pathways, ensuring individuals from all backgrounds can secure their place in Australia's future industries."

## Critical Barriers to STEM Outreach & Pipeline Delivery

### 1. The Institutional "Invisibility" of Outreach (ANZSIC Omission)

Despite our significant national footprint, the professional science outreach sector lacks formal recognition in the Australian economic landscape.

#### The Issue

There is currently no specific category for informal science educators or science outreach operations within the Australian and New Zealand Standard Industrial Classification (ANZSIC) codes. Organisations are shoehorned into generic 'Education' or 'Professional Services' categories.

#### The Impact

This renders our industry 'statistically invisible.' Policymakers cannot effectively map the growth or health of the STEM pipeline if the primary drivers of that pipeline do not appear in Treasury or Departmental dashboards.

**We miss the opportunity to harvest real-time data on student understanding and teacher confidence that is gathered daily in classrooms across every postcode in Australia.**

### 2. The "Scale vs. Scraps" Paradox (Funding Disparity)

There is a profound disconnect between the government's multibillion-dollar sovereign industry ambitions and the 'symbolic' funding allocated to the human pipeline required to realise them.

#### The Issue

Major industry announcements and policy allocations—totaling hundreds of

billions—are frequently supported by outreach funding that is effectively a rounding error. This includes the **\$22.7 billion Future Made in Australia** package, which breaks down into:

**Critical Minerals & Metals (~\$10.2B+):** Including a \$7B Production Tax Incentive and \$3.2B for Next Generation Manufacturing.

**Renewable Energy Tech (~\$8B+):** Including \$6.7B for Hydrogen Tax Incentives and \$1.4B for clean energy manufacturing (Solar Sunshot).

**Innovation & High-Tech Support (~\$1.7B):** The Innovation Fund for pre-commercial clean energy hardware.

This is further contrasted by the **AUKUS** commitment (estimated at **\$368 billion** over 30 years) and direct tech spending allocations of **\$2.4 billion**. Distributing small grants to support these colossal trajectories is not a strategy.

### **The Impact**

Universities, museums, and specialist companies are expected to build a 'world-class workforce' on 'community-grant' budgets. This prevents the creation of permanent, scalable infrastructure.

**We are currently asking the outreach sector to build a Sovereign Capability on the back of volunteerism and short-term grantsmanship.**

### 3. The "Harvest Season" Paradox (Economic Instability)

The outreach industry is subject to a cyclical workload that threatens the viability of expert organisations and leads to a significant 'brain drain'.

### **The Issue**

Most outreach groups experience significant 'troughs' between February and April, and again from mid-December to late January. These are structural administrative lags within schools and public sites.

### **The Impact**

Organisations must either carry high salary costs during quiet periods or downsize, losing decades of institutional knowledge. Paradoxically, during peak periods like National Science Week, government-funded programs often call for 'volunteerism' or discounted services.

**This is the economic equivalent of asking a farmer to discount their produce during the peak of harvest season. It makes the sector financially precarious.**

#### 4. Temporal Misalignment: Financial Years vs. School Calendars

Government bureaucracy and the classroom operate on different clock speeds. This misalignment wastes funding and stifles regional reach.

##### **The Issue**

Grant cycles based on the July–June financial year fail to account for the fact that schools lock in their curriculum enrichment and budgets by November for the following year.

##### **The Impact**

Funding released in January is 'too late' for integration into core planners.

**This results in a stop-start delivery model that prevents feasible long-lead logistics for regional tours, leaving regional students further behind.**

### **Proposed Solutions: Aligning Policy with Practical Reality**

#### **STRATEGIC ALIGNMENT**

##### **Formal Recognition & Data Integration**

The government should formally recognise the professional STEM outreach sector as a critical industry partner.

- **ANZSIC Reform:** Update classification codes to include 'Science Outreach and Informal STEM Education.'
- **Data Intelligence:** Utilise the 'daily fair test' occurring in our

## FISCAL SUSTAINABILITY

classrooms to collect qualitative data on STEM literacy.

### Multi-Year "Pipeline" Funding (The 1% Commitment)

Transition from transactional handouts to infrastructure-level investment.

- **3-to-5-Year Cycles:** Provide established providers with operational certainty to retain expert staff and invest in durable, high-tech equipment.
- **The 1% Levy:** We advocate that 1% of the budget for major sovereign projects (Future Made in Australia, AUKUS, Space) be quarantined for professional outreach.

## OPERATIONAL EFFICIENCY

### The "Early-Bird" Funding Window

Synchronise government capital with school planning cycles.

- **The August Window:** Award and announce outreach funding no later than August/September. This allows organisations to present fully-funded programs to teachers during their peak planning window.
- **Regional Impact:** Ensures Term 1 is dedicated to delivery rather than administrative scrambling.

## PROFESSIONAL STANDARDS

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### Professionalising Outreach (Ending the Volunteer Myth)

We must treat STEM outreach as a professional industry, not a charitable endeavour.

- **Labour-Inclusive Reform:** Reform grant guidelines to explicitly allow for professional labour costs. A high-quality program is defined by the expert who delivers it.
- **Peak Season Value:** End the expectation of free or discounted services during National Science Week and other observance times. Recognise the economic reality of the sector.

EQUITY & ACCESS

## National "Virtual Incursion" Infrastructure

Bridge the achievement gap for remote students through sovereign digital capability.

- **Historical Imperative:** My 2014 Churchill Fellowship called for this; COVID-19 proved it. During the pandemic, we reached 1.5 million students by training 240 organisations—a proof-of-concept for national scale.
- **Direct Investment:** Create a national mandate that recognises virtual incursions as equal to physical ones. This ensures a student in Kununurra has the same access to the AVA Challenge as a student in Sydney.

**"The potential of Australian students is our greatest natural resource. We must move from a model of accidental inspiration to one of intentional professionalised pipeline development."**

### Conclusion

The AIMERS Foundation is ready to partner with government to bridge the gap between aspiration and accessibility. Australia possesses the expertise and the student appetite to build a global innovation hub by 2050. However, we must first address the structural hurdles that treat the outreach sector as an afterthought rather than an essential industrial asset.

By implementing these strategic solutions, we move beyond adaptation to active creation, positioning Australian students not just as participants in the future economy, but as its architects. The current lack of formal recognition and the cyclical nature of funding are solvable problems with the right policy shifts.

### Ben Newsome

STEAM Advisor, AIMERS Foundation

## **Astronomy Pillar Advisor – Marilena Salvo**

### **Astronomy as a Gateway to Science Education in Australia**

#### **1. Purpose**

This submission provides an overview of the role of astronomy as a gateway to science for Australian students and outlines the current status of astronomy and space-related education and outreach nationally. It also highlights the contributions of CSIRO and Australian National University (ANU) visitor centres, particularly during the Artemis mission period.

#### **2. Key Points**

- Astronomy is one of the most effective entry points into STEM due to its accessibility, interdisciplinary nature, and strong public appeal.
- CSIRO and ANU visitor centres in NSW and the ACT have reported significant increases in public inquiries during NASA's Artemis missions, demonstrating heightened national interest in space science.
- There is an opportunity for government to leverage this momentum to strengthen STEM pathways, particularly for regional and under-represented communities.

#### **3. Background**

Astronomy has historically played a central role in inspiring scientific curiosity. The night sky is freely accessible to all Australians, including those in remote and regional areas, making astronomy uniquely positioned to support equitable STEM engagement.

Australia's long-standing involvement in international space missions—from Apollo to Artemis—has further strengthened public interest and provided a compelling narrative for science education.

#### **4. National Infrastructure Supporting Public Engagement**

##### **4.1 CSIRO Visitor Centres**

CSIRO operates several major astronomy and space science visitor centres that serve as national hubs for public outreach:

- **Parkes Observatory (Murriyang telescope, The Dish), NSW**

- Iconic national facility with a legacy spanning Apollo to Artemis.
- Received increased public inquiries during Artemis II tracking activities.
- Provides free or low-cost educational experiences for schools and families.
- **Canberra Deep Space Communication Complex (Tidbinbilla), ACT**
  - Operated by CSIRO for NASA's Deep Space Network.
  - Supported communications for Artemis II and continues to attract strong public interest.
  - Offers exhibits, tours, and school programs explaining Australia's role in deep-space operations.
- **Australia Telescope Compact Array (Narrabri), NSW**
  - Provides public access to advanced radio astronomy facilities.
  - Supports regional outreach and school engagement.

## 4.2 ANU Visitor Centres

ANU operates two major public-facing astronomy sites:

- **Mount Stromlo Observatory, ACT**
- **Siding Spring Observatory, NSW**
  - Home to Australia's largest optical telescopes.
  - Hosts major public events such as StarFest.

## 5. Impact of the Artemis Missions

The Artemis II mission (2026) generated a measurable increase in public engagement across Australia. This surge mirrors the public engagement seen during the Apollo era and demonstrates the enduring power of space exploration to inspire scientific interest.

## 6. Current Status of Astronomy Education and Outreach in Australia

## 6.1 Strengths

- **Strong university programs** in astrophysics and space science (ANU, Swinburne, UNSW, Curtin).
- **Growing integration of Indigenous astronomy**, enhancing cultural and scientific learning.
- **National curriculum alignment** with space science content in physics and earth/space sciences.

## 6.2 Challenges

- Limited astronomy content in early primary education.
- Uneven access to dark-sky environments for metropolitan students.
- Need for sustained funding for visitor centre operations and outreach programs.
- Limited national coordination across astronomy outreach providers.

## 7. Considerations for Government

- Astronomy outreach aligns with national STEM priorities and supports workforce development in science, engineering, and space industries.
- Public interest generated by Artemis presents a time-sensitive opportunity to expand engagement.
- Strengthening astronomy education can support regional development, given the location of major observatories in NSW and WA.
- Enhanced outreach can contribute to long-term national capability in space science and technology.

## 8. Conclusion

Astronomy remains one of Australia's most powerful tools for inspiring scientific curiosity and strengthening STEM pathways. With strategic support, Australia can build on its world-class research infrastructure, international partnerships, and public enthusiasm to enhance national science engagement and prepare the next generation of scientists, engineers, and space professionals.

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## AIMERS Foundation Advisory Council Report

### National Indigenous Infrastructure for Workforce Development and STEM Talent Pipeline

The **Young Indigenous Women's STEM Academy** has evolved beyond a standalone education program and now represents a nationally significant Indigenous infrastructure model for workforce development, STEM participation and future talent pipeline creation.

The STEM Academy provides one of the few long-term, continuous engagement models in Australia supporting Aboriginal and/or Torres Strait Islander young women across critical transition points including:

- Secondary education
- Year 12 completion
- University and tertiary pathways
- Internships and industry exposure
- Early career transitions
- Leadership development

This sustained pipeline approach is critical to addressing Australia's long-term workforce shortages in emerging industries including:

- Space and aerospace
- Artificial intelligence
- Advanced manufacturing
- Clean energy
- Digital technologies
- Cyber security
- Engineering
- Health and environmental sciences

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Importantly, the STEM Academy is not only developing future employees — it is developing future Indigenous STEM leaders, researchers, innovators, entrepreneurs and decision-makers.

The STEM Academy demonstrates how Indigenous-led, culturally safe infrastructure can successfully deliver measurable outcomes in:

- Workforce participation
- Educational retention
- STEM capability
- Regional and remote engagement
- Gender equity
- Leadership development
- National productivity and innovation

As Australia responds to increasing demand for highly skilled STEM and digital workers, the STEM Academy provides a proven national model for building a stronger, more inclusive and future-ready workforce.

Its success highlights the importance of sustained investment in Indigenous-led initiatives that create both social impact and long-term national economic capability.

## **Key Achievements and Outcomes**

### **Exceptional Student Retention and Educational Success**

The STEM Academy has achieved outcomes significantly above national averages for Indigenous student participation and retention.

Key achievements include:

- 94.8% overall retention rate across the program nationwide
- 92% retention from Year 8 to Year 12 in the Northern Territory, compared to the NT average of approximately 33% for Indigenous female students
- More than 200 students currently enrolled in the high school program
- 354 young women supported through university and tertiary pathways
- 100 university graduates to date

These outcomes demonstrate the effectiveness of sustained, culturally responsive mentoring and wraparound support models.

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## **National Leadership in Indigenous Women in STEM**

The STEM Academy is internationally recognised for its leadership model, which embeds Indigenous women's leadership at every level of the program.

Achievements include:

- 100% Aboriginal and/or Torres Strait Islander female staffing model
- Indigenous female STEM professionals serving as mentors and role models
- Establishment of an all Indigenous female STEM Professional Steering Committee co-chaired by four alumni of the program
- Inclusion of an Elder in Residence to provide leadership and cultural governance.
- Long-term support spanning secondary school, university and early career transitions

This model provides young women with visible leadership pathways and demonstrates Indigenous excellence in STEM industries.

## **Real-World STEM Learning and Industry Engagement**

The STEM Academy has delivered more than 150 STEM experiences nationally, including:

- Regional STEM camps
- University immersion programs
- Industry visits and mentoring
- Hands-on engineering and technology activities
- Leadership and wellbeing programs
- International STEM exchanges and collaborations

These experiences expose young women to real-world STEM applications and increase awareness of future career opportunities.

## **Major National and International Achievements**

**Australian Space Agency – Roo-ver Mission to the Moon**

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The STEM Academy will be participating in the Australian Space Agency's nationally significant Roo-ver Mission to the Moon initiative, providing young Indigenous women with opportunities to engage directly with space science, robotics, coding and future space industries. This participation strengthened pathways into Australia's growing space sector while increasing visibility of Indigenous women in advanced STEM industries. The initiative also aligned strongly with Australia's Future Made agenda and national space capability development.

### **International STEM Leadership Dialogue (ISLD)**

The STEM Academy has played a leading role in the **International STEM Leadership Dialogue (ISLD)**, contributing Indigenous Australian perspectives to global STEM leadership conversations.

Participation in ISLD has helped position the STEM Academy as a globally connected initiative focused on:

- Indigenous STEM leadership
- Equity in emerging technologies
- Global collaboration
- Future workforce capability
- Inclusive innovation ecosystems

The Dialogue has also expanded international partnerships and leadership opportunities for both students and staff.

### **Churchill Fellowship Recognition**

The STEM Academy's leadership has been recognised through the Executive Manager, Kim Dyball's participation in the prestigious **Churchill Fellowship**, highlighting the program's innovative approach to Indigenous STEM engagement and global best practice learning.

The Fellowship strengthened international collaboration opportunities and contributed to the STEM Academy's growing international profile in STEM equity and Indigenous education leadership.

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## **National and International STEM Leadership and Systemic Impact**

The STEM Academy has achieved remarkable national and international recognition, significantly increasing both the participation and visibility of Indigenous women in STEM across Australia and globally. The program has been showcased internationally by UNESCO, while the Australian Government presented a case study on the STEM Academy at the United Nations, recognising its leadership in advancing Indigenous women in STEM education and pathways. The STEM Academy has also been featured in major national policy and strategy documents, including the Pathways to Diversity in STEM Review and the National Robotics Strategy, highlighting its contribution to shaping more inclusive STEM systems and workforce development. In addition, the STEM Academy has helped drive systemic change through participation in national working groups, including to inform the development of the National Science and Research Priorities.

## **Engagement with the United Arab Emirates Embassy, Canadian Embassy and US Embassy**

The STEM Academy has strengthened international relationships through engagement with the UAE, Canadian and US Embassies and global education and innovation partners.

These engagements will support:

- International STEM diplomacy
- Cross-cultural collaboration
- Global innovation discussions
- Emerging technology partnerships
- Future pathways for Indigenous women in international STEM industries

The STEM Academy's participation in these discussions reflects its growing international reputation as a model for inclusive STEM education.

## **AIMERS Foundation and Mission ShakthiSAT Collaboration**

The STEM Academy has also engaged with AIMERS Foundation initiatives including discussions surrounding Mission ShakthiSAT, the global satellite education initiative supporting 12,000 girls from 108 countries.

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This collaboration reflects shared values between AIMERS Foundation and the STEM Academy:

- Equity in STEM access
- Empowering girls in emerging technologies
- Global collaboration
- Space education
- Future workforce capability

The partnership opportunities between AIMERS Foundation and the STEM Academy create strong potential for future international engagement for Indigenous Australian young women in advanced technology sectors.

### **Australian Space Awards Recognition – Greta Stephensen**

A major milestone for the STEM Academy community has been the recognition of **Greta Stephensen**, who is a finalist for an award at this year's Australian Space Awards in June.

This nomination reflects the calibre of leadership and talent emerging through Indigenous STEM pathways and demonstrates the increasing visibility of Indigenous women within Australia's space and technology sectors. Her recognition serves as an important inspiration for the next generation of young Indigenous women pursuing careers in STEM and space industries.

### **Global Partnerships and International Reach**

The STEM Academy has developed strong international partnerships with organisations including:

- NASA Jet Propulsion Laboratory (USA)
- Stanford University
- University of California, Berkeley
- University of California, Davis
- Pūhoro STEM Academy (Aotearoa/New Zealand)
- American Indian Science and Engineering Society
- Reykjavik University (Iceland)

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- UiT Arctic University of Norway
- Canadian and United States Embassies
- Asia-Pacific Economic Cooperation (APEC)

Young women and staff have participated in global opportunities including:

- NASA JPL internships
- International Visitor Leadership Programs
- London International Youth Science Forum
- Space industry exchanges
- International STEM leadership programs

These experiences build global networks, leadership capability and international career pathways.

### **Alignment with National Priorities**

The STEM Academy strongly aligns with major Australian Government priorities including:

- Closing the Gap
- Better and Fairer Schools Agreement
- Future Made in Australia
- Women in STEM and Entrepreneurship
- Regional workforce capability
- Digital inclusion and participation
- Building women's participation in male-dominated industries

Importantly, the STEM Academy addresses intersectional disadvantage by supporting young women experiencing overlapping barriers related to:

- Gender
- Geography
- Socioeconomic disadvantage
- Cultural exclusion
- Limited STEM access

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## Sustainability and the Challenge of Securing Long-Term Funding

Despite its nationally significant outcomes and proven impact, one of the greatest challenges facing the Young Indigenous Women's STEM Academy is securing sustainable, long-term funding.

The STEM Academy delivers measurable outcomes in education retention, university participation, workforce readiness, leadership development and STEM capability building. However, programs of this scale and impact require ongoing investment to maintain continuity of support for young women across multiple years and transition points.

Unlike short-term engagement programs, the STEM Academy operates as a long-term pipeline model, supporting students from Year 8 through to tertiary education and early careers. This depth of engagement is what drives the STEM

Academy's exceptional outcomes — but it also requires stable and sustained funding commitments.

The challenge is that many funding structures continue to favour short-term project cycles, despite the evidence showing that transformational outcomes for underrepresented students require long-term investment, trusted relationships and continuity of support.

Without sustained investment, there is a risk that:

- Proven pathways for Indigenous young women in STEM may be disrupted
- Workforce pipeline development into critical industries may weaken
- Regional and remote students may lose access to high-quality STEM opportunities
- Australia may lose future Indigenous STEM leaders, innovators and professionals
- Momentum built through years of community trust and relationship-building may be compromised

The STEM Academy has demonstrated that Indigenous-led, culturally grounded STEM initiatives can achieve outcomes well above national averages. The challenge now is ensuring these successful models are resourced not as short-term

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programs, but as essential national infrastructure for workforce development, equity and future economic capability.

As Australia invests in Future Made in Australia priorities, clean energy, digital transformation, advanced manufacturing and sovereign capability, there is a critical opportunity to recognise and support the STEM Academy as a strategic national investment in the future workforce.

Sustained funding would not only secure the future of the STEM Academy but also strengthen Australia's capacity to build a more diverse, innovative and globally competitive STEM workforce for generations to come.

## **Conclusion**

The Young Indigenous Women's STEM Academy represents one of Australia's strongest examples of long-term, culturally grounded STEM engagement and workforce development.

Its success demonstrates that when Indigenous young women are provided with culturally safe environments, visible pathways, strong mentoring and access to world-class opportunities, outcomes can exceed national expectations.

The STEM Academy is not only improving participation in STEM — it is helping reshape Australia's future workforce, strengthening national capability, and ensuring Indigenous women are represented in the industries that will define the future.

The achievements of the STEM Academy strongly reinforce the AIMERS Foundation vision that inclusive STEM education is essential to building a fairer, more innovative and future-ready Australia.

## Research Ecosystem Advisor Report – Dr. Kshitij Mall

With the rise of AI, humans are becoming more and more dependent on AI tools such as ChatGPT. A 2025 MIT study found that humans who used ChatGPT or similar AI tools a lot showed lower brain activity and weaker memory compared to those working independently. This is leading to a "**cognitive debt**" in such humans, where AI replaces active thinking.

Moreover, the AI can be biased. For example, the AI cannot draw a human writing with a left hand. This is because only 10% of the humans are left-handed and hence the data for humans writing with a left hand is limited. Thus, AI can be unreliable and requires human to double check what information is being presented to them before consuming such information.

A major reason for humans to not check the data that is presented to them is a lack of research aptitude. This results in reactions than responses when humans see a particular situation. They end up making bad calls based on ill-informed data.

Research is also tied to enhancing nation's prosperity and building some core technologies. Australia, at present, is losing talent in research and academia to the US, the UK, and Europe. Australia just got its space program in 2018, but has faced a bottleneck scenario due to limited funding. Space happens to be a critical aspect for future development of the nation and requires many bright Australian minds to work together on challenging problems.

The solution to fix this situation is to promote a research aptitude. Australia happens to be world's first country to prohibit children under 16 from accessing major social media platforms. A similar move is needed by Australia to promote innovation and creativity. Australia has a great opportunity to set firsts in the field of research too.

The idea is to catch them early. Students have an absorbent mind that can learn anything quickly. Instilling research aptitude in them from an early stage can bring a drastic difference. Research should be introduced in the curriculum at an earlier stage in the education system. Some fun activities should be conducted in schools that build research aptitude among the students. Kids should be told the importance of being creative and innovative while questioning data presented to them.

In higher education, research elements should be introduced in a way that AI is used as an assisting tool. The educators globally are facing a challenge of giving homework assignments or take-home exams. New ideas need to be developed to get around this situation. Many instructors have resorted to having practical exams that require students to think through and apply their research aptitude.

The exponential technologies are going to only grow in coming times. The challenges are going to become multi-fold and need to be addressed early on. Having a strong research aptitude will go a long way in overcoming many of these challenges and develop robust solutions for them. For this to happen, Australia needs to invest on building educational capabilities to create a human-centric work force that sees AI only as an assistant.

**AIMERS foundation** is aimed toward creating impact in the research arena and empower communities through these exponential technologies in a sustainable manner. The foundation helps in connecting access with ability while honing the talent pool in several domains including research. Learning how to publish high quality academic work based on thorough research is an ongoing effort by the foundation.

Dr. Kshitij Mall  
Research Ecosystem Advisor  
AIMERS Foundation

## Executive Summary

- Access to quality STEAM education and opportunities remains uneven across gender, geography, culture, and socioeconomic background.
- STEAM, education, and innovation systems in Australia remain fragmented and lack long-term coordination.
- AI, digital, and media literacy are not keeping pace with rapid technological change and misinformation risks.
- Education systems are not developing enough future-ready workers with both technical and human-centred skills.
- Many students lack access to mentorship, industry engagement, and clear pathways into STEAM careers.
- Local communities and governments remain underdeveloped and lacking in integration in national innovation and STEM ecosystems.
- Without stronger inclusion, coordination, and capability development, Australia risks worsening skills shortages, reduced innovation capacity, and growing inequality.
- Professional STEM outreach remains structurally under-recognised despite playing a major role in national workforce and innovation development.
- Australia's STEM outreach sector lacks formal classification, limiting visibility in policy, funding, and economic planning systems.
- Current outreach funding models are short-term, fragmented, and disproportionately small compared to Australia's sovereign industry ambitions.
- Misalignment between government funding cycles and school planning cycles reduces effectiveness, particularly for regional delivery.
- Economic instability across the outreach sector contributes to workforce loss, operational fragility, and reduced long-term capability.
- STEM outreach is frequently treated as charitable or volunteer-based rather than as a professional industry essential to sovereign capability development.
- Regional and remote students continue to face unequal access to high-quality STEM opportunities and industry-connected learning experiences.
- Virtual learning and digital outreach infrastructure remain underdeveloped despite proven national-scale capability during COVID-19.
- Without structural reform, Australia risks weakening the STEM pipeline needed to support future industries including AI, robotics, advanced manufacturing, space, and clean energy.

## Themes

### Systemic equity and access divide

#### Issue

Access to high-quality STEAM education and opportunities remains uneven across various demographics, including gender, socioeconomic background, geography, and cultural background. Girls and women continue to leave STEAM pathways at high rates, migrant and culturally diverse communities face structural barriers, and regional and disadvantaged students have reduced access to resources, mentors, and advanced learning opportunities.

#### Impact

Large portions of the potential talent pool are underutilised or excluded from STEAM and technology pathways owing to lack of access rather than lack of ability. This reduces diversity of thought and perspective, weakens worker contributions, and entrenches long-term social and economic inequality while worsening national skills shortages.

### Fragmented STEAM and innovation ecosystems

#### Issue

STEAM education, innovation, and workforce development efforts are spread across schools, universities, industry, government, and community organisations with limited coordination. Many initiatives operate as short-term or isolated programs rather than sustained, system-wide frameworks with shared accountability and long-term integration.

#### Impact

Successful programs fail to scale or sustain impact, leading to duplicated effort, inefficient investment, and missed opportunities to build a coherent national STEAM pipeline. This fragmentation weakens system-wide effectiveness and long-term capability development.

### Digital, AI and media literacy gap

#### Issue

Understanding of AI, digital systems, and emerging technologies is too slow given their rapid, ongoing development. Many educators, students, policymakers, and communities lack the knowledge required to effectively use, evaluate, or govern these technologies. Access to AI and digital learning is also relatively uneven. The rise of AI-generated content, deepfakes, algorithm-driven media, and misinformation has outpaced the development of media literacy and critical thinking skills. Students and communities are often not equipped to evaluate information sources effectively.

## **Impact**

This increases risks of misinformation, declining trust in institutions, poor decision-making, unsafe or unethical use of technology, and unequal participation in the digital economy, and risks uneven access to more advantaged (e.g., possibly wealthier) groups. It also undermines confidence in evidence-based knowledge systems.

## **Human skills deficit**

### **Issue**

Education systems continue to prioritise technical content over human-centred capabilities such as creativity, collaboration, ethical reasoning, communication, adaptability, and cross-disciplinary thinking. These skills are increasingly essential in complex, AI-induced working environments.

### **Impact**

Graduates may be technically competent but underprepared for real-world complexity, reducing workplace effectiveness and limiting innovation quality. This weakens both individual employability and national workforce capability.

## **Workforce pathways and talent development**

### **Issue**

Across all education levels, Australia is not producing enough workers with the combination of technical skills, adaptability, critical thinking, and interdisciplinary capability required for rapidly evolving STEAM industries such as AI, robotics, cybersecurity, space, advanced manufacturing, and digital systems. In short, education pathways are not keeping pace with the speed of technological change. Moreover, there are weak and inconsistent connections between students and real-world STEM ecosystems, including limited industry engagement, uneven mentorship, and fragmented pathways for identifying and supporting high-potential students.

### **Impact**

High-potential talent is overlooked or underdeveloped, particularly in regional and underrepresented communities. This reduces motivation, weakens progression of STEAM students into related careers, and limits Australia's long-term innovation pipeline. This creates persistent skills shortages, reduced productivity, and growing dependence on external expertise. Over time, it weakens national competitiveness, limits innovation capacity, and constrains Australia's ability to participate in emerging global industries on equal terms.

## Community integration and local innovation gap

### Issue

Local governments and community organisations are often under-involved in formal innovation and STEAM ecosystems, despite being closest to real-world social challenges and community needs. Integration between national policy and local delivery remains limited.

### Impact

Innovation efforts become disconnected from lived community realities, reducing effectiveness and trust. Opportunities for place-based solutions, youth engagement, and grassroots STEAM participation are missed, weakening overall system impact and inclusivity.

## Research Aptitude, Critical Thinking and Human-Centric AI Capability

### Issue

The rapid adoption of Artificial Intelligence and generative AI tools is increasing dependence on AI-generated outputs without adequate critical thinking, verification, and research aptitude. Emerging studies, including research referenced in Kshitij Mall's report, have raised concerns regarding reduced cognitive engagement and overreliance on AI-assisted systems.

The report also highlights challenges relating to AI bias, misinformation, declining analytical capability, and insufficient emphasis on research aptitude within education systems. Additionally, Australia faces ongoing challenges in retaining and developing long-term research and innovation capability in emerging technology sectors.

### Impact

Without stronger focus on research aptitude, critical inquiry, and human-centred learning, there is a risk of reduced independent thinking, weaker decision-making, declining innovation capability, and increased vulnerability to misinformation and unethical technology use.

Over time, this may weaken Australia's research ecosystem, future workforce readiness, sovereign capability in advanced technologies, and long-term competitiveness in emerging global industries.

## AIMERS Foundation Activity Report

Media Coverage in Australia Today & Desi Australia :

[https://www.theaustraliatoday.com.au/science-prize-laureates-to-lead-advisory-council-of-new-tech-not-for-profit/#google\\_vignette](https://www.theaustraliatoday.com.au/science-prize-laureates-to-lead-advisory-council-of-new-tech-not-for-profit/#google_vignette) – Launch coverage

<https://desiaustralia.com/lifestyle/technology/global-fundraiser-for-mission-shakthisat-launched-in-hornsby-by-minister-james-wallace-mp/> - AIMERS Foundation appointed as a Global Fund raising Partner for the Mission.

## We have made it to the State Parliament speech twice

<https://www.parliament.nsw.gov.au/Hansard/Pages/HansardResult.aspx#/docid/HANSARD-1820781676-102806> - Parliamentary Record of the Foundation's work

**Legislative Council** : State Shadow Minister for Science & Technology - **Hon. Jacqui Munro MLC** - <https://youtu.be/Rf2Oe5PJuWA?si=I1P3VB0qey9NZB6h>

**Legislative Assembly** : Member for Hawkesbury - **Ms. Robyn Preston MP** - [https://youtu.be/2d8tmttEUfQ?si=rmeJ\\_siBcjEuzQl6](https://youtu.be/2d8tmttEUfQ?si=rmeJ_siBcjEuzQl6)

- **“Make a Mark”** - Academic journal for school students was launched under the leadership of **Dr. T V Gopal** and we have received the **ISSN**(International Standard Serial Number) - **3083-2594**. This is a bi-monthly journal.
- We have partnered with **Australian Science Teacher's Association** (ASTA) - A 75 year old organisation through the President - **Paula Taylor** , an Australian Prime Minister Science Prize Winner. She has joined as Advisor for Teacher's Council for AIMERS Foundation. We are publishing the work of the Finalists of **icubed** in our journal.
- The first book under AIMERS Foundation - **“The Women who Engineered the Foundations of Innovation and Modern World”** was authored by me and launched first by the Mayor of Hills Shire Council. The foreword of the book was written by the High Commissioner of Mauritius **Her Excellency Sarojini Seeneevassen**. The book is available in National Library of Australia - <https://trove.nla.gov.au/work/265953588?keyword=The%20Women%20who%20Engineered%20the%20Foundations%20of%20innovation%20and%20Modern%20World>

- The first episode with **SBS Radio** for taking **Science to Society** was successfully recorded with Satellite as the centre theme. This has opened opportunities to taking Satellites to various schools + Community events where over 3,000 people have witnessed the engineering model of **Waratah Seed** - The Australian built Satellite under the leadership of **Professor Iver Cairns**, The Australian Space Scientist of the Year Award Winner for 2022 and the Advisor for Space Pillar for AIMERS Foundation.

Here is the speech from the State member for Hornsby on how he resonates with the vision of AIMERS in making Australia a global Innovation Hub by 2050 - Mr. James Wallace MP speech - <https://youtu.be/y8T4UK6c-O0?si=YjVmO4I9VikDOm5U>

- Mission ShakthiSAT Mascot was Unveiled at BRICS CCI WE Summit 2026 on 23rd March. The unveiling was graced by **Ms. Meenakshi Lekhi**, Former Minister of State for External Affairs, along with Ms. Ruby Sinha, President BRICS CCI WE, ambassadors, and delegates from BRICS and partner nations, marked a powerful convergence of diplomacy, science, and gender inclusion. This was conceptualised by the Founder & Mission Director of Mission ShakthiSAT - **Dr. Srimathy Kesan**.

This is a milestone moment for AIMERS as we had the mascots carrying the logo of AIMERS Foundation in their cosmonaut suit.

- Australian Astronomical Optics at Macquarie University are participating at Mission ShakthiSAT through their payload **Malya**. The team will be present in India between 23<sup>rd</sup> August and 2<sup>nd</sup> September to teach students the Satellite Build & integration.
- Ainfinit AI has come on board as the digitisation partner and they are building a Student leadership portal to track the impact and the work done by the students which will help in producing a transparent data for the **Early entry to University program**.
- We have received letter of recognition from the Asst Federal Minister of Science & Technology – Dr. Andrew Charlton MP for both AIMERS Foundation and Mission ShakthiSAT.
- We have 66 schools participating in Mission ShakthiSAT from Australia through community outreach programs. Overall we have 140 girls part of this from schools

- Westbourne Grammar School
- Crestwood High School
- Loreto Mandeville Hall Toorak
- Ballarat High School
- Eastern Goldfields College
- Eastern Goldfields College High School (EGCHS)
- Mount Waverley Secondary College
- Castle Hill High School
- Cheltenham Girls High School
- Xavier College, Llandilo
- Islamic College of Brisbane
- Thomas Carr College
- Sacred Heart Girls College
- Corinda State High School
- Our Lady of Mercy College, Parramatta
- Auburn Girls High School
- Glenwood High School
- James Ruse Agricultural High School
- Springfield Central State High School
- Rouse Hill Anglican College
- Kelvin Grove State College
- Indooroopilly State High School
- St George Girls High School
- Mercy Catholic College
- MacGregor State High School
- Cavendish Road State High School
- Mansfield State High School
- Carlingford High School
- St John Paul II College
- The Ponds High School
- Sarah Redfern High School
- Cherrybrook Technology High School (CTHS)
- Strathfield Girls High School
- Girraween High School
- St Francis Catholic College, Edmondson Park
- Macarthur Girls High School
- Burwood Girls High School
- Radford College
- Cranebrook High School
- Blacktown Girls High School
- Leppington Anglican College
- Cerdon College Merrylands

- Gosford High School
- Cammeraygal High School
- Baulkham Hills High School
- Good Samaritan Catholic College
- Penrith Selective High School
- Hills Adventist College
- Chatswood High School
- Atwell Primary School
- Burgmann Anglican School
- Emmanuel College
- St Philip's Christian College
- Asquith Girls High School
- Australian Christian College
- Rooty Hill High School
- Ascham School
- Casino High School
- Lake Illawarra High School
- Camden Haven High School
- Trinity Catholic College, Lismore
- St Mary's Catholic College
- Mareeba State High School
- Bremer State High School
- Prairiewood High School
- Sydney Girls High School

<b>Impact Area</b>	<b>Current Progress</b>
ACNC registration	17 Sept 2025
Official launch	31 Jan 2026
Schools reached in Australia	66 schools
Girls in Mission ShakthiSAT Australia	140
Global ShakthiSAT target	12,000 girls, 108 countries
Public satellite exposure through Waratah Seed	3,000+ people
Make A Mark Journal ISSN	3083-2594
ASTA partnership	iCubed finalists publication

## Next 12 Months Vision Pipeline

Over the next 12 months, AIMERS Foundation aims to expand equitable access to Artificial Intelligence, STEM, Robotics, Space Technology, Media Literacy, Science Communication, and Emerging Technologies across Australia through a strong ecosystem of schools, universities, industry, government, educators, and community partners.

The Foundation plans to scale its outreach across metropolitan, regional, rural, multicultural, and underserved communities by strengthening programs such as Mission ShakthiSAT, AIMERS Innovation Festival, Make A Mark – Student Academic Journal, science communication initiatives, student leadership programs, and future workforce readiness activities.

AIMERS Foundation seeks to empower students not only as learners, but as innovators, researchers, creators, entrepreneurs, communicators, and future leaders by providing access to mentorship, real-world projects, emerging technology exposure, and interdisciplinary learning opportunities.

Key priorities over the next year include:

- Expanding school and student participation nationally.
- Strengthening girls' participation in STEM and emerging technologies.
- Increasing access for regional, rural, migrant, and underrepresented communities.
- Building stronger industry, university, and government collaborations.
- Supporting innovation, critical thinking, ethical AI awareness, and future workforce capability.
- Creating measurable student leadership and impact pathways through transparent engagement frameworks.

Through its programs and partnerships, AIMERS Foundation aims to contribute toward building a more inclusive, innovation-driven, and future-ready Australia — where talent is nurtured irrespective of background, geography, or socioeconomic circumstance.

## Programs of AIMERS Foundation

- Mission ShakthiSAT
- Make A Mark Journal
- AIMERS Youth Innovation & Future Skills Showcase 2026
- AIMERS Toons
- Frustration with Science

## Photos demonstrating Recognition & Work



### **Andrew Charlton MP** MEMBER FOR PARRAMATTA

May 2026

I am pleased to write in recognition of the work being undertaken by AIMERS Foundation, an Australian technology not-for-profit, in the area of space education and international collaboration.

It is encouraging to see an Australian organisation playing a meaningful role in Mission ShakthiSAT – an all-female-led lunar space mission that is providing 120 hours of free satellite-building training to 12,000 girls across 108 countries. AIMERS Foundation has been appointed to lead the Global Fundraiser for this mission, and I note that over 140 girls from Australia are currently participating in the program.

Mission ShakthiSAT is often recognised as the world's first all-female-led lunar space mission, providing young women with hands-on experience in real satellite development. This training is offered entirely free of charge, reflecting a genuine commitment to ensuring access to space education. Australia's participation in a mission of this scale is something worth recognising.

Beyond Mission ShakthiSAT, AIMERS Foundation runs a range of programs spanning space education, robotics, youth media, academic publishing, and STEM entrepreneurship. This breadth of activity works to create meaningful pathways for young Australians, particularly those from underrepresented communities, to engage with technology and innovation.

I wish AIMERS Foundation, Mission ShakthiSAT, and all the young women involved every success with this initiative and with the Foundation's broader goals of growing Australia's technology and innovation capability.

Sincerely,

A handwritten signature in blue ink that reads "Andrew Charlton".

**Dr Andrew Charlton MP**

Cabinet Secretary

Assistant Minister for Science, Technology and the Digital Economy

Federal Member for Parramatta

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🌐 [www.andrewcharlton.com.au](http://www.andrewcharlton.com.au)



Introduction to AI for Seniors – Rotary



Introduction to AI for Seniors in Hindi – Harman Foundation



MacArthur Girls – Satellite Meet & Greet



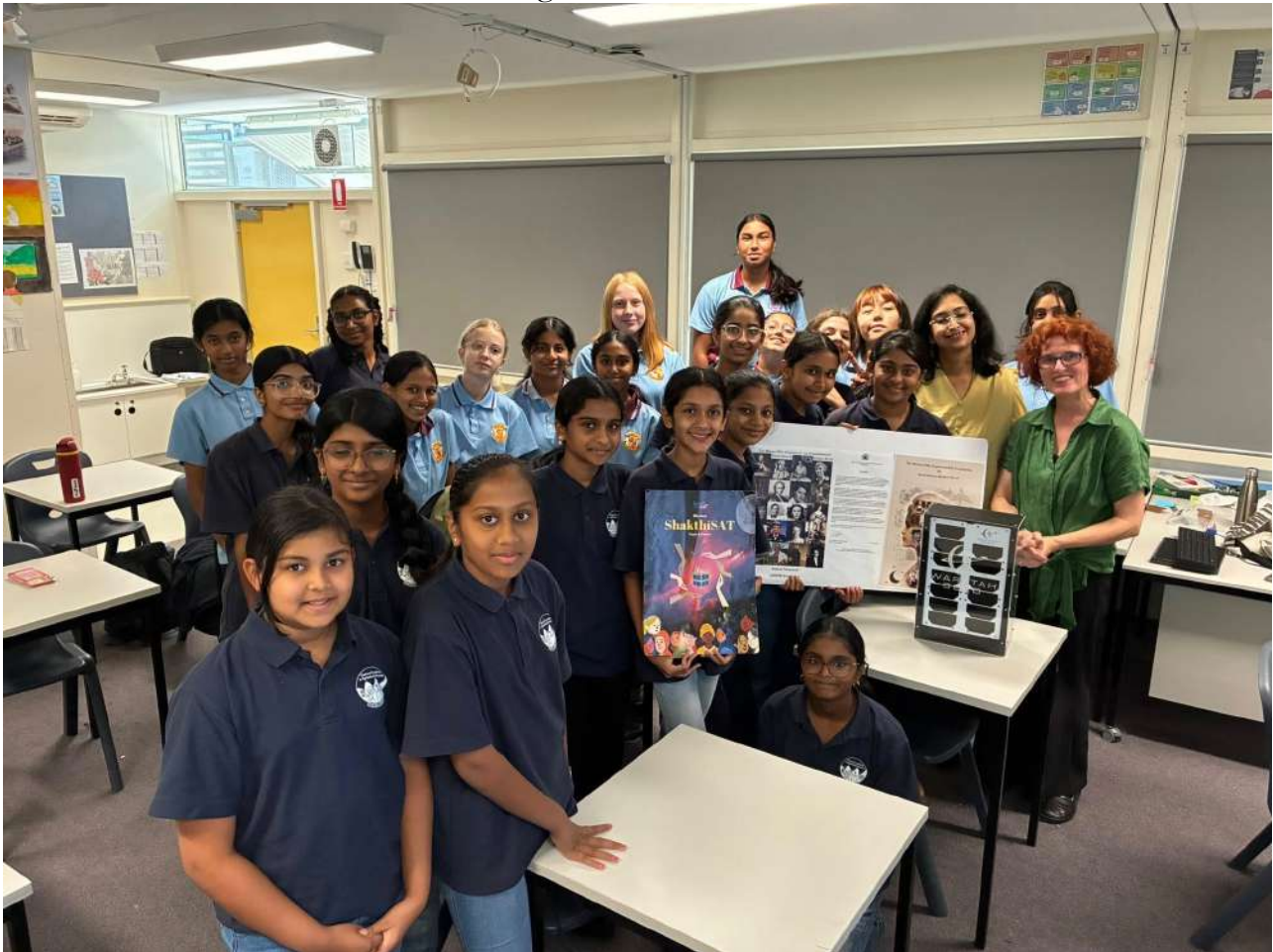
Castle Hill High – Satellite Meet & Greet



Crestwood High – Satellite Meet & Greet



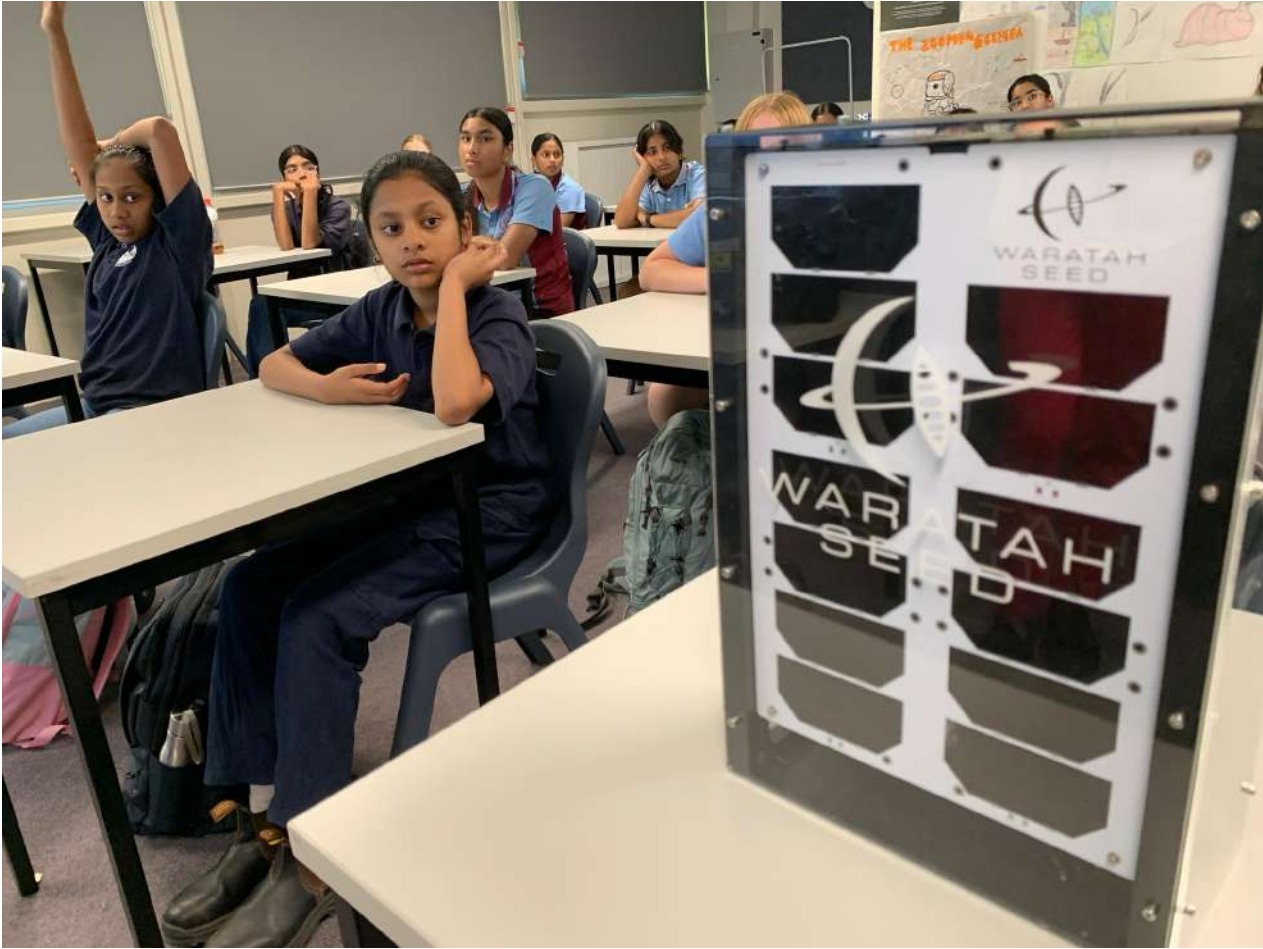
Richmond Agriculture – Satellite Meet & Greet



Asquith Girls High – Satellite Meet & Greet



Students with Waratah



Satellite Meet & Greet with State Minister of Hornsby – Mr. James Wallace MP



Satellite Meet & Greet with State Minister of Hornsby – Mr. James Wallace MP



Satellite Meet & Greet at International Women's Day event



Waratah Seed at SBS



Satellite Meet & Greet with Mayor of Camden Council Ms Therese Fedeli , Clr Dr. Abha Suri and others.



Satellite Meet & Greet with Seniors from Blacktown Council



AT community Durga Havan Event – Celebrating the goddess of Courage



Women who Engineered the Foundation of Innovation & Modern World – Launch By Mayor of Hills Shire – Dr. Michelle Byrne



Book Launch at IWD event



Satellite Meet & Greet with Seniors from Blacktown Council



Eastwood Tamil School with Satellite Program for SBS



**Launch of AIMERS Toons by Hon. Jacqui Munro MLC**

