



in Schools

Re-Engineering Australia Foundation Ltd

F1 in Schools Sponsorship Prospectus Australia/New Zealand

Re-Engineering Australia Foundation Ltd

Building Australia's Scientific, Technological and Engineering future.

**STEM 4.0
LIFE-LONG
LEARNING**



Re-Engineering Australia Foundation

Re-Engineering Australia Foundation (REA) is a not-for-profit charity and Deductible Gift Recipient focusing on the implementation of a educational programs which take the concept of STEM education to another level. By focusing on the analytical problem-solving capacity, communication and collaboration skills of students, we help build resilience and character, preparing them for their future careers and the world of work. REA's programs promote career relevance, life-long learning and foster the transition of knowledge from primary school, through high school, University and directly into industry.

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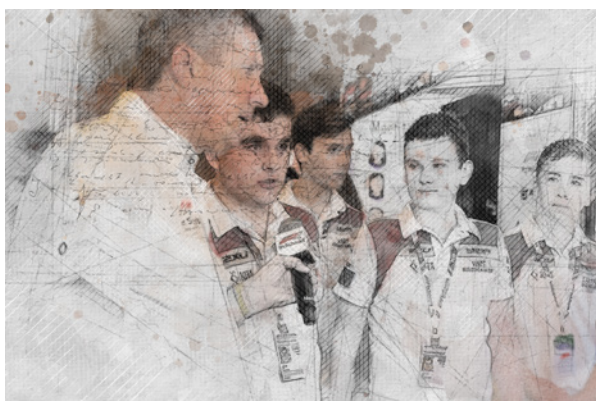
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About REA



“ Re-Engineering Australia Foundation Ltd (REA) facilitates career intervention activities which link schools, industry, TAFE, universities and parents in a collaborative and entrepreneurial environment focused on encouraging students to engage with Science, Technology, Engineering and Maths (STEM).



REA, established in 1998 as a not-for-profit social enterprise, has the primary objectives of increasing students' understanding of Science, Technology, Engineering and Maths (STEM) careers. We are now a leader in the design and implementation of STEM career intervention activities, recognised around the world.

At a time of rapid technological advancement, REA provides teachers with new approaches to help the delivery of STEM-based education and technology in the classroom. Technologies which facilitate the development of the employability skills industry seeks and promoting Life-Long Learning.

Our programs link schools, industry, TAFE, Universities and parents in a collaborative and entrepreneurial environment focused on attracting students to take up STEM-based subjects at school and careers after leaving school.

A significant reason for the success of our programs is the practical and applied project based learning techniques we employ. We confront students with exciting challenges. We equip them with world-class tools and connect them to industry mentors to facilitate the development of their thirst for knowledge.

We empower students and inspire them to learn, creating a paradigm shift in the way we educate our children. STEM is not about “what you learn” ... STEM is about “what you do with what you learn”.



Our Mission

To engage, inspire and educate students, teachers and the community about the value of careers based in Science Technology, Engineering and Mathematics (STEM).



Our Vision

To create the entrepreneurs of the future who will re-engineer our nation's ability to design, create and control its economic future.



Our Values

To provide knowledge, guidance and support to students and teachers which will set them on a path to succeed beyond their own expectations.



Our Focus

To deliver STEM 4.0 Life-Long STEM Learning opportunities which will facilitate students beginning their career pathway journey at the earliest ages.



Engaging with Students

“To meet the challenges of ever more sophisticated international competition in advanced products and services, employers need to be able to access an increasingly skilled workforce, whose skills include traditional sciences and mathematics, communications technologies (ICT), and the 21st century skills that prepare our youth for a lifetime of unfolding career opportunities” ... Dr Alan Finkel AO Chief Scientist (2017).

Student & Teacher Engagement with Industry

A fundamental and critical differentiator of the REA programs has been the requirement for students to work directly with industry partners in the context of their projects. Students have the opportunity to see a direct relevance between classroom activity they enjoy and the world of work.

All REA programs require students to collaborate and interact with industry and industry mentors. Students are required to seek out information about career pathways in Industry which aligns with their skills and motivations.

STEM 4.0 Life-long Learning

We are focusing on the implementation of a STEM 4.0 Life-long Learning regime which develops the analytical problem-solving capacity and communication skills of students at a very early stage. Our programs can start in primary school, transition through high school and into University, establishing in students attitudes to innovation and creativity, which support the development of a successful career.

We work with industry to determine targets for the educational outcome and provide support to students and teachers via technology and curriculum to become work-ready.



F1 in Schools Activities



F1 in Schools STEM Challenge



F1 in Schools™ is a multi-faceted and multi-disciplinary program based on the design of miniature F1® race cars. It facilitates students collaborating with industry partners within the context of their projects to learn STEM principles. Program focus is toward students between 11 and 18 years of age.



Primary STEM Project



Primary STEM Project engages primary students as young as five years old in building and racing a paper-based F1® car. The program is a subset of the High School F1 in Schools™ Challenge and is aimed at students in years K-7.



Program Growth & Industry Engagement

“ Our programs build on this innate skill by placing high importance on engagement with industry. Our students learn through both success and failure, along the way developing high levels of resilience.

Industry Involvement

The support of Industry has had a significant impact on REA being able to grow its coverage and the outcomes that it has been able to achieve. The number of teams involved in our activities, the number of high school students directly involved and the number of schools involved have all grown substantially on what is a broad base.

Student Engagement

In the competition component of REA programs, 13,000 students were involved with another 113,000+ exposed in participating schools. The number of students attending participating schools is more than 350,000. Driving this engagement is a social media strategy with the TV coverage that some of our events have achieved coverage of over 8 million people.

Teacher awareness of Career Pathways.

Critical to increasing exposure of students to employment pathways in the industry is the need to raise the awareness and understanding of teachers to these career pathways. Each year REA surveys teachers and students, as part of an ongoing longitudinal study, to understand our performance and to keep updated on students and teachers understanding of Industry career pathways.

Linking Schools with Industry - Collaboration, Mentoring & Networking

A vital component of all of REA's programs is the requirement for students to collaborate with industry. Students are encouraged to undertake many collaborations to facilitate networking opportunities and promote links to the learning outcomes provided by the project. Students have the chance to see a direct relevance between the classroom activity they enjoy and the world of work.

All REA programs require students to collaborate and interact with industry and industry mentors to learn about technology and career path options. To increase student engagement with Industry career pathways, rather than handing career information to students, REA has adopted a pull-strategy to focus students on possible career pathways. Each of our programs has students seeking out information about career pathways which align with their skills and motivations.

The assessment regime involved in each of the programs has students dedicating a portion of both their project presentations and project portfolio to highlighting the career research they have undertaken. This assessment forms part of the overall marking criteria for each competition.

We measure students teams to determine the quality and quantity of collaboration that they undertake and are required to show understanding of the approaches needed, initiate and maintaining stakeholder engagement with collaborators, sponsors, mentors and supporters using multiple tools and methods. The students need to showcase their evidence in these areas in their portfolio and their trade booth by recording several industry-specific collaborations. In their verbal presentations, teams have to highlight their development of a range of personal, life-long learning and career skills acquired as a result of collaboration and networking with industry. Successful interaction with industry is evident when team members show thoughtfully considered future career aspirations. Teams are required to provide evidence that each of the team members has considered their future career aspirations and undertaken research into how these might link with opportunities which align with their specific skill sets.

Supporting Research

Supporting Research

In 2006 REA started a longitudinal research project, which is continuing past 2020, that examines the motivational drivers of children's career decision choices. Data on a wide range of topics pertaining to student career attitudes are collected from students involvement in REA programs. It examines the capacity of these programs to influence change in career motivation. In the last three years, our research has collected primary data from over 3,500 students and 600 teachers.

A summary of some of the key findings of the ongoing research include the following:

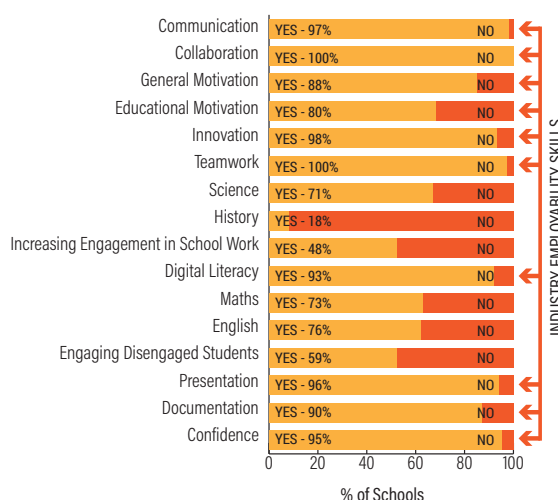
- Students were showing an increased ability to understand the importance of the subjects they are studying at school and how they relate to large-scale problem-solving and real careers.
- 73% of the students who participated changed their motivation to follow a STEM based career as a result of their participation in the program.
- 55% of students have an interest in the manufacturing element of the program. Given that the manufacturing industry is currently considered in decline in Australia, making up less than 13% of our GDP, to have students with high levels of interest in manufacturing goes well for attracting students to the manufacturing careers.
- Teachers highlight the capacity of STEM to impact the complete education process. Teacher perception is that as a consequence of their participation in these programs, students show a marked improvement in interest and performance across a majority of subject areas. They highlight a capacity for these programs to bridge the educational silos and deliver improved performance in all subjects. Of note is the increase in students performance in the areas which could be directly linked to industry defined employability skills. The only subject that did not show a significant improvement was History, where only 18% of teachers recorded an increase in students performance.
- 71% of students indicating that they would recommend a career in specific STEM industries to their peers. A clear indication that students have no blockages to the sector or jobs in STEM based industries.

Our research highlights that biasing girls to take up STEM careers is counter-intuitive and is showing a negative outcome in the attitudes of boys to jobs that they would typically like to take up. Exposing girls to STEM career opportunities in a language that fits with their motivational drivers, has shown to be the key driver which impacts their career aspiration.

While there still exists a perception that boys dominate STEM activities, we can engage with girls just as successfully as we do boys. We do this by utilising the appropriate language which brings the programs within motivation that the students, boys and girls, can relate too.

Industry plays a key role in assisting students make the final career decision choice and this is most effectively done via direct interaction with students and through the provision of ongoing positive messaging about the Industry.

In Which Subject Areas Have You Seen a Visible Improvement in Student Performance as a Result of Their Participation in REA Programs:



Teacher Feedback on the Impact of REA programs on increase students performance across a broad range of subject areas.

Exposure & Creating World Champions

Since 2003 we have produced 7 World Championship teams in the largest and most complex STEM programs in the World.

We understand the meaning and intent of STEM from our industrial heritage, and it is this heritage that has helped us become recognised for producing the best STEM students in the world.

During 2018-19 there have been significant opportunities to gain exposure. These included a opportunity, at the request of the Governor of Victoria, to engage with the Duke and Duchess of Sussex, at an event which was broadcast around the world. Also, there have been numerous national television and radio appearance by students which included three radio interviews with Alan Jones which aired on the Maquarie/2GB Radio networks and a presentation on Jones & Co news program on Sky News.

A key contributor to our capacity to gain high-level exposure has been the success achieved internationally by our students in competitions. While we began out of a passion for making a difference, we didn't realise until 2006 that along the way we were creating the best STEM students in the world. In 2006 we produced our first set of STEM World Champions. Since then, our methodology of engaging with industry to build skills has gone from strength to strength. Seven world championships and numerous other podium positions at final world events are a testament to the students and the ability of our programs to capitalise on their inherent capabilities.

Social Media Strategy

The social media landscape has significantly changed in the past 12 months with students have moved away from the use of Facebook as a social media platform of choice now preferring to secure messaging network tools such as WhatsApp, Instagram and the like. Media is reporting that the use of Facebook by people under 20 has decreased by 70% . The secure messaging platforms that the younger generation are choosing to use in place of Facebook are not open to the public and are deliberately much harder to penetrate and use as a broad based message or marketing tool. We are creating media in the form of videos and short stories which can easily be linked into these secure networking APS via hash-tag links and direct reference. A Facebook post which 12 months ago would have attracted 100 likes is now attracting few if any hits whereas a posting on a secure messaging network can attract 2,000 hits per story or more.

All social media stories produce by REA are aimed to drive the viewer to the REA website

WORLD CHAMPIONS



World Champions FI in Schools: 2006, 2011, 2012, 2013, 2017 & 2018
World Champions Land Rover 4x4 in Schools: 2016

Podium Places at International STEM events:

1st Place:	7 times
2nd Place:	6 times
3rd Place:	6 times
4th Place:	4 times
5th Place:	6 times



where more detail is contained. Within this re-direction REA's goal is to develop a reputation as a trusted voice which the students are keen to listen to.

REA's key social media activities are built around:

- Maintenance of a web site which acts as the suppository for knowledge about our programs and careers information.
- The development of videos which describe events of activities which can be distributed via all forms of social media.
- The use of Linked-In to maintain exposure within the business world. This is designed to help attract sponsors, mentors and role model to the programs.
- Extensive use of e-newsletters addressed to key stake holders and students
- Live-streaming major events on You tube.
- A Podcast service called Above and Beyond which showcases stories of student success and the perspectives of teachers and industry toward STEM education and the relevance of STEM in developing the skills industry is seeking.

Public Exposure

REA is been involved in a number of careers and public exposure events designed to engage students and the public outside REA's existing program network. At these events REA erects a large display stand which promotes career opportunities. The public exposure that we received via these events can be summarised in the following chart.

Careers and Public Exposure events	Visitors
The number of visitors to REA competition events.	57,920+
The number of students who participated in careers events.	4,283+
Royal Adelaide Show	100,000+

Summary of Social Media & Event Participation

Likes on social media and on-line platforms	4,542
Posts on social media and on-line platforms	114
Views on Social Media Platforms	480,264
Television & Media Coverage (Audience).	8,350,000



Upcoming Events

“ REA is involved in public exposure events throughout the year.

Between July & December each year REA runs 13+ major F1 in Schools events around the country where we directly interacting with over 35,000 students, teachers and event visitors. Within these are a number of events which attract very high exposure. Examples include: in March host the F1 in Schools National Final in Melbourne linked to the Rolex Australian Grand Prix. In August we play a significant role in the Royal Adelaide Show.

The following is an initial list of the competition events planned for 2021 and are an example of the F1 in Schools events we run each year.

Program	Event	Month	Location	State	No. Students	Visitors (2019) Prior to COVID
F1 in Schools	National Final	March	Melbourne	Vic	220	1130
F1 in Schools	Regional Final	July	Redcliffe	Qld	180	150
F1 in Schools	Regional Final	August	Newcastle	NSW	450	200
F1 in Schools	Regional Final	August	Sydney	NSW	195	80
F1 in Schools	Regional Final	August	Gold Coast	Qld	175	50
F1 in Schools	Regional Final	August	Mackay	Qld	235	120
F1 in Schools	Regional Final	August	Toowoomba	Qld	148	60
F1 in Schools	State Final	September	Adelaide	SA	150	30,000
F1 in Schools	State Final	September	Launceston	Tas	120	130
F1 in Schools	State Final	October	Brisbane	Qld	145	95
F1 in Schools	State Final	October	Melbourne	Vic	180	85
F1 in Schools	State Final	October	Perth	WA	98	65
F1 in Schools	State Final	November	Sydney	NSW	178	134
Total					2,474	32,299

Sponsorship Overview

“ The programs, activities and events of Re-Engineering Australia Foundation offer a significant opportunity for our partners to highlight their corporate citizenship both internally and externally.

REA provides a platform to raise employee awareness of the organisation community leadership by providing opportunities for positive employee engagement activities in the community. We are involved in a wide variety of ongoing marketing activities throughout the year. These activities range from media events to displays at trade shows and conferences, business and careers expos, government and educational events, many of which REA is a keynote presenter.



We will work with our partners to identify agreed vital messages and target audiences to define a strategy and words that directly provides the maximum return for a partners investment. These strategies may include direct mail, email campaigns (e-newsletters), advertising in selected national newspapers, the use of social media and the linking of websites to help stakeholders stay in touch with our progress.

Sponsorship Opportunities

Support and sponsorship can be at several levels, including:

- National Program Sponsorship
- Project Sponsorship
- Event Sponsorship
- REA Membership

REA National Program Sponsorship

National Sponsorship helps expand our activities and is negotiable. In general terms, National sponsorship attracts significant financial support which is negotiable. Preferably, National Sponsorship will be ongoing for three years or more to allow REA sufficient time to deliver a compelling return on investment. National Sponsorship, covers all REA programs, but we are happy to entertain national sponsorship of individual programs to meet specific marketing needs.



At a national level, we work with the sponsors marketing departments to develop an integrated internal & external marketing program around a set of awareness activities aimed at increasing, expanding and exploiting the level of recognition in the market place in alignment with each company's strategic positioning. National sponsors are also invited to have a participant on our marketing advisory board.

Through its technology partners, REA has developed a significant collaboration and support network with schools, students and linked industries. These provide excellent opportunities for our partners to have their brands and messages communicated to thousands of students. Because our programs end up involving parents, they too are part of the target audience for marketing messages.

A significant component of any sponsorship is assigned to the employment of additional staff to focus specifically on achieving the agreed outcomes of the national sponsor. Having multiple national sponsorships from different industries allows REA to maximise the marketing and coverage outcomes and facilitate significant networking opportunities for sponsors at both a business and political level.

National Program Sponsor

- Program Sponsorship is \$80,000 - Recognition covers all events associated with selected program.

Project Sponsorship

Each year REA seeks Government and industry funding to undertake projects which help expand access to technology for students around the country. Funding which will allow disadvantaged groups to participate in our programs is a particular focus.

Many projects involve the establishment of technology-hub in regional and remote areas. Each technology hub provides access to our programs for up to 300+ students and access to the latest technology, for a further 1,500 students. The equipment supplied to each technology hub together with the cost of teacher training is in the order of \$80,000. These hubs can be implemented anywhere across Australia.

An example of a project for which we are currently seeking support for is REA's Outback STEM Educational Initiative which aims to facilitate the establishment of technology hubs in schools in the Northern Territory and Pilbara and Gascoyne regions of Western Australia. Schools in these areas suffer from the educational tyranny of distance more than any other regions of Australia. Our goal is to equalise the educational opportunities for students in these regions.

In addition to the financial support, we also welcome in-kind contributions to the activities of the Foundation and in particular, encourage business to adopt their local school as a way to share experiences and encourage young Australians to take up STEM, engineering and manufacturing as a profession.

In-kind sponsorship can be in the form of mentoring of teams or a school, providing judges to officiate at an event or facilitating site visits for students through your facilities.

The benefits that can come back to sponsors include any or all of the following:

- Providing a funnel of prospective employees.
- Student teams making presentations to your employees.
- Students presenting at industry conferences and forums on your behalf.

Project sponsors have the option to sponsor the implementation of technology at a hub or a specific school and receive prominent exposure at National Finals events.

Event Sponsorship

REA runs numerous events throughout the year associated with our programs. Depending upon the size of the program, different marketing and exposure opportunities will be available. Our events are either Regionally, State, National or International in nature with each attracting varying degrees of media exposure. Event sponsorship provides funding of student participation in events, covering catering for judges, teams and teachers, the supply of display booths and in some instances to subsidise travel cost of the students.

There are three levels of sponsorship that are available in association with each of these events.

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National Final Event Sponsor

- Corporate Gold Sponsorship is \$25,000 per event.
- Corporate Silver Sponsorship is \$15,000 per event.
- Corporate Bronze Sponsorship is \$5,000 per event.

State Finals - sponsorship

- Corporate Gold Sponsorship is \$12,000 per event.
- Corporate Silver Sponsorship is \$5,000 per event.
- Corporate Bronze Sponsorship is \$3,000 per event.

Regional Event Sponsor

- Event Sponsorship is \$1,000.

World Final Participation Sponsor

- Corporate Gold Sponsorship is \$25,000 per event.
- Corporate Silver Sponsorship is \$15,000 per event.
- Corporate Bronze Sponsorship is \$5,000 per event.

Membership

As a member-based organisation, we welcome both individuals and organisations becoming members of REA. This annual support provided by membership is a valuable component of our fundraising activities. Your support will allow us to provide a consistent pathway for the development of future innovators through interaction with you and your organisation. It will enable you to put back into the Australian community through the students who will soon lead this nation.

Corporate Membership

- Corporate Membership is set at \$2,500 p.a. + GST

Private Membership

- Private sponsorship is set at \$250 p.a. + GST

Sponsor Benefits

Sponsorship Benefits & Provisions

	National Sponsor	Project Sponsor	Event Sponsor	Corporate Member	Private Member
Logo on equipment in hub schools	✓	✓	•	•	•
National public relations coverage	✓	✓	✓	•	•
Member of the REA marketing committee	✓	•	•	•	•
Presentation of certificate recognising commitment to the Foundation	✓	✓	✓	•	•
Company name/logo in REA publicity materials, advertising & other distributed materials; included in ongoing REA activities – eg. Newsletters, invitations to key events, media opportunities	✓	•	•	•	•
Use of REA Foundation logos on company business materials	✓	✓	✓	•	•
Acknowledgment in REA formal speeches/proceedings, incl. Launches; display of company banner/signage at Foundation events; involvement at displays/trade exhibitions	✓	✓	✓	✓	•
Opportunities to develop relationships with key government figures involved with the Foundation at different levels.	✓	✓	•	✓	•
Networking opportunities at Foundation functions.	✓	✓	✓	✓	✓
Acknowledged on REA website, with a link to own website	✓	✓	✓	•	•
Opportunities to network with students, teachers, P&C's,	✓	✓	✓	•	•
Families of students and businesses linked to participating Schools; increased community profile via initiatives – eg. School Visits, work experience, workplace tours, hosting events	✓	✓	•	•	•
Presentation of "certificate of membership" recognising commitment to the Foundation	✓	✓	•	✓	✓
Benefit from ongoing REA activities – eg. Newsletters	✓	✓	✓	✓	•
Invitations to key events, media opportunities	✓	✓	✓	✓	•

STEM education is not about “what you learn”... it’s not about “more maths”, “more science”, “more coding” or “more anything”. STEM is about “what you do with what you learn”... it’s about moving away with a siloed education system and aligning educational outcomes with the requirements of industry based on a foundation of Life-Long Learning, Analytical Problem Solving and Communication. It’s about a networked cross-curricular collaborative learning environment.



RE-ENGINEERING AUSTRALIA FOUNDATION

**ENGAGE
INSPIRE
EDUCATE
STUDENTS
TEACHERS
INDUSTRY**

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