Challenging students to build a future in science and engineering

www.newcastle.edu.au/challenge

FOR MORE INFORMATION PLEASE CONTACT:

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The Science and Engineering Challenge (The Challenge) is an outreach program aimed at changing students’ perceptions of science and engineering. Through The Challenge, students experience an aspect of science and engineering which they would not usually see in their school environment. The Challenge aims to inspire students in Year 10 to consider a future career in science and engineering by choosing to study the enabling sciences and mathematics in years 11 and 12.

By participating in The Challenge students see that science and engineering involves creativity, innovation, problem solving and team work. Students are involved in an exhilarating day competing against other schools in fun and engaging hands-on activities involving principles of science, engineering and technology. Typically 8 schools (256 students) compete in a Challenge day. School teams are divided into eight groups that compete in one or two activities.

The Challenge commenced in in the year 2000 as an initiative of the University of Newcastle. Quickly we were recognised both nationally and internationally as a unique and effective way of promoting science and engineering to students.

In 2004, the commonwealth government acknowledged the value of our program and provided funding for the Challenge to be offered Australia-wide. This was achieved just 2 years later, with the Challenge running in every state and territory of Australia.

The Challenge has grown rapidly. Since our humble beginnings in the year 2000 as a one day event on the Central Coast of NSW, we have grown to reach more than 24,500 students from almost 900 schools each year. The Challenge has also progressed to include three levels of competition; a Regional (local) ‘Super Challenge’ (state) and the ‘National Finals’ the program’s highest level of competition.

The Challenge prides itself on being a cooperative venture between:
- local communities;
- businesses;
- industry;
- government bodies;
- around 30 universities Australia-wide.

Volunteers form the backbone of the program with over 2000 people — Rotarians, engineers, scientists, university students, business men and women — assisting in the running of events nationwide.

The Science and Engineering Challenge is:
- An opportunity to change a young person’s life for the better.
- Focused on encouraging young people into science and engineering careers.
- Effective! This claim is backed up by research.
- Involved in local communities and businesses.
- A truly national, all-Australian program and a world leader in the field!
- An exemplar of the ‘national framework – local action’ model of science communication.
Immediate Impact
Directly reaches over 24,500 students nationwide each year with a media audience of over 3,000,000 people!

Medium Term Impact - Senior High School Subject Selection
The Challenge is committed to measuring the impact on Year 11 subject selection. Research is conducted one year after students compete in the program. A survey of past student participants revealed that:

- 96% of students found the Challenge rewarding;
- 89% of students found the Challenge informative about relevant potential courses and careers;
- 38% of students studying Mathematics were influenced by the Challenge to choose this subject;
- 40% of students studying Chemistry were influenced by the Challenge to choose this subject;
- 45% of students studying Physics were influenced by the Challenge to choose this subject.

Long-term Impact – Career Pathways
Undergraduate students studying science or engineering related degrees at the University of Newcastle were surveyed to determine whether The Challenge impacted their decision to study their chosen degree. Our most recent survey results show that:

The Challenge had a positive influence on them:
- Pursuing a University degree: 42%
- Attending the University of Newcastle: 30%
- Pursuing their particular current degree: 32%

In addition, we discovered that outreach programs on the whole increase students self confidence, their interest in science and engineering, and their awareness of science and engineering careers.

Westside Christian College, QLD “This was the number 1 factor that influenced my decision to do physics!”

Murdoch College, WA “It gave me an insight to the world of engineering.”

Brigidine College, QLD “It made me aware that science is all around us!”

Werribee Secondary College, VIC “It made science fun!”

Boonah State High School QLD “I am thinking of being an engineer now!”

Is it effective?

Directly reaches over 24,500 students nation-wide each year.

Improves participation rates in HSC science and mathematics subjects.

Has a growing alumnus of students who are pursuing careers in science and engineering!

Is a proven solution to the skills shortage!
How can you get involved?

Sponsorship forms the basis of the Challenge. We believe in providing sponsors with high quality and professional service. We strive to present sponsors with the maximum promotional opportunities in return for their investment so that the rewards of being involved in the program have a long term effect.

By partnering with The Challenge, sponsors gain exposure to over 24,500 unique participants around Australia. In addition to this, sponsors are promoted to over 500,000 individuals through the program’s greater audience of student’s relatives, friends, teachers, local businesses, universities, community groups and media publicity.

Please note, that the recognition that sponsors receive through the program is negotiable in consideration of existing sponsors.

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<tr>
<th>Level</th>
<th>Value</th>
<th>Coverage</th>
<th>Naming Recognition</th>
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<tbody>
<tr>
<td>National</td>
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<td><strong>PLATINUM</strong></td>
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<tr>
<td>National Sponsor</td>
<td>1 x $500k per year</td>
<td>National (24,500 students)</td>
<td>Exclusive naming rights to national program: The &lt;sponsor name&gt; Science and Engineering Challenge</td>
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<td>OR</td>
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<td><strong>GOLD – National</strong></td>
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<tr>
<td>Major Sponsors</td>
<td>4 x $150k per year</td>
<td>National (24,500 students)</td>
<td>Shared naming rights: The Science and Engineering Challenge nationally sponsored by W, X, Y and Z Up to 4 national sponsors</td>
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<td><strong>GOLD – State</strong></td>
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<td>Major Sponsors</td>
<td>7 x $100k per year</td>
<td>State x 7 = National (~ 5000 students)</td>
<td>State naming rights: The Science and Engineering Challenge This state is sponsored by &lt;sponsors name&gt; Up to 7 state sponsors</td>
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<td><strong>SILVER</strong></td>
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<td>Activity Sponsor</td>
<td>8 x $60k per year</td>
<td>National (24,500 students)</td>
<td>&lt;Activity name&gt; sponsored by &lt;sponsor name&gt; Up to 8 activity sponsors</td>
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| Local              |                   |               |                                                       |
| **BRONZE**         |                   |               |                                                       |
| Event Only         | $5k per Challenge day | Naming rights for a single event (250 students per day) | The <sponsor name> Science and Engineering Challenge Subject to other National sponsorship |
| **IRON**           |                   |               |                                                       |
| Event Only         | $500 per Challenge day | Naming rights for one activity at a single event (250 students per day) | <Activity name> sponsored by <sponsor name> Subject to other National sponsorship |

Werribee Secondary College, VIC

“It made science fun!”