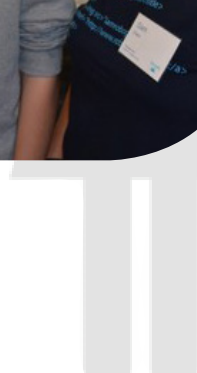
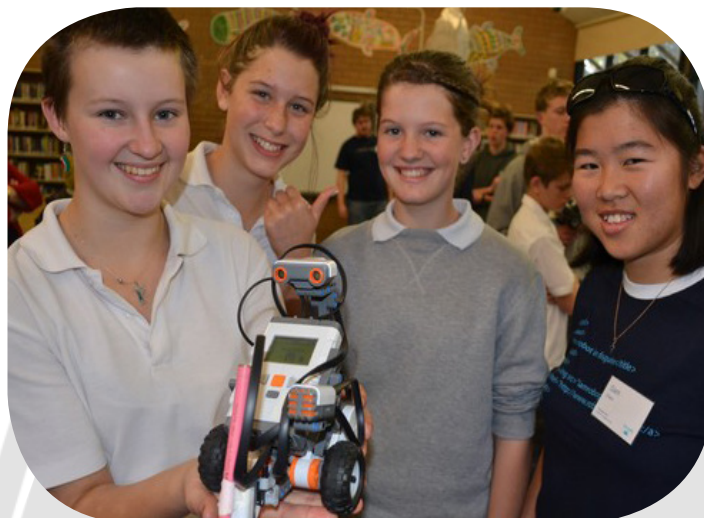


# Annual Report 2013







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# Chair's Report: Dr Bronwyn Evans



Robogals is an important organisation. Our role is to bring the excitement of engineering to girls everywhere.

Our genesis was one young woman's, Marita Cheng, vision for a different future for the engineering profession. At the same time Marita realized Robogals must be sustainable beyond her leadership and went about building the organisational and governance structures to support this goal. This included establishing a Board, defining the executive team roles and responsibilities and creating appropriate operating procedures for Robogals Chapters.

We are now one year into the successful transition of CEO from Marita to Nicole Brown. Nicole and her team have continued to strengthen and grow the impact of Robogals. It has been wonderful to be Chair of the Robogals Board and be part of this inspiring organization.

As Nicole notes in her CEO Report, Robogals' achievements in 2013 are very impressive. They include:

- Eight new Robogals Chapters established, creating a truly global organisation.
- 6,241.5 girls taught in Robogals workshops, with more than 13,000 girls experiencing a Robogals workshop since our inception in 2008.
- The third Robogals Science Challenge held in November 2013 attracted 33 entries.
- More than 1000 university students engaged in Robogals activities.

I would like to thank my fellow Board members for their continuing commitment and passionate contribution. This year we welcomed Ms Catherine Fox to the Board and farewelled Mr Bruce Howard after 3 years on the Board.

On behalf of the Board I congratulate Nicole and the Robogals executive across the globe for their passion, their innovation and for the positive impact they are having on the future of the engineering profession.

Robogals would not be successful without the significant contributions from our sponsors and partners. In 2013 the Robogals Sponsors Advisory Council was established to allow Robogals to benefit from the wisdom and insights of our key sponsors.

I look forward to another stimulating and successful year for Robogals in 2014 when we bring the excitement of engineers to even more girls.

# CEO's Report: Nicole Brown



The year of 2013 has been a year of change for the Robogals Community. We saw our Founder and Executive Director, Marita Cheng, and our Operations Director, Mark Parncutt, step down from the roles they had held since Robogals' conception in 2008.

On behalf of the Robogals family, I would like to extend our thanks to both Marita and Mark for helping to make the organisation what it is today.

## The opportunity for growth

---

Upon this change in leadership we saw an opportunity to further develop the way in which Robogals operated and expand our reach to more locations worldwide. 2013 has seen eight new Robogals Chapters start around the world, the transition from a two tier management system to a three tier management system and record numbers of young girls being introduced to engineering.

As of September 2013, Robogals has reached over 13,000 girls through robotics workshops since 2008! A phenomenal effort that could not have been achieved without the dedication of our Executive Committee members around the world, our committed volunteers, our inspiring Board Members and, of course, our Industry partners.

## Connecting regions and Robogals

---

Robogals is a fast growing organisation with a strong community culture. In 2013, it has been our aim as a Global Team to establish stronger connections between our three regions of the Asia Pacific, North America and the United Kingdom/Europe. These connections have been achieved through social media, the exciting launch of the Robogals internal forum and International 'Skype Hangouts'.

We are also in the process of creating a three-tier management system consisting of a Global Team, three Regional Teams and our individual Chapters. The establishment of a Regional Team will allow a stronger Regional Identity and provide an improved managerial aspect to the way in which Robogals operates. The Asia Pacific Regional Team was established in September 2013 and we are currently in the process of recruiting for these teams in the UK and North America.

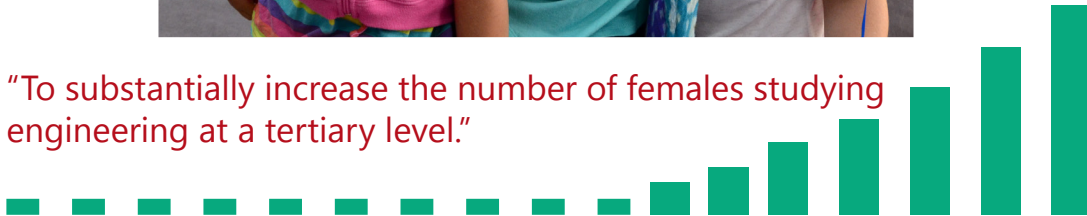


As always, one must look ahead to what the future holds. Robogals is an ever-growing and ever-changing organisation that aims to continue to address the important issue of introducing engineering careers to young girls.

We look forward to expanding our curriculum, starting more chapters in countries around the world, as well as collaborating with similar organisations to promote our vision:



"To substantially increase the number of females studying engineering at a tertiary level."



On behalf of the Robogals Community, I would again like to extend our gratitude to all our supporters around the world. We look forward to what the future holds.

**Nicole Brown**  
Robogals Global | CEO

# Team Members

## Board Members



### **Bronwyn Evans**

Chair  
CEO, Standards Australia

### **Marita Cheng**

CEO, 2Mar Robotics

### **Mark Parncutt**

Software Engineer, Ourcast  
Inc.

### **Jamie Evans**

Head of Department Elec-  
trical and Computer Sys-  
tems, Monash University

### **Catherine Fox**

Journalist

### **Andrea Ibbott**

Director, Border HR Pty Ltd

### **Nicole Brown**

Chief Executive Officer

### **Sam Cheah**

Chief Operations Officer

### **Caitlin Burke**

Regional Executive Officer

### **Garima Gupta**

Regional Executive Officer

### **Lauren Hassall**

Regional Executive Officer

## Global Team



### **Nicole Brown**

Chief Executive Officer

### **Sam Cheah**

Chief Operations Officer

### **James Li**

Chief Technical Officer

### **Michelle Freedman**

Secretary

### **David Liu**

Media and Community  
Manager

### **Lucy Shaw**

Project Manager

### **Shane Lyndon**

Project Manager

### **Karlo Julian**

Project Manager

### **Software Team:**

#### **Yuk Fai Cheung**

#### **Pallavi Sehgal**

#### **Ida Bagus Manuaba**

#### **Hao Geng**

#### **Kajal Lachhani**

#### **Julie Boulton**

#### **Michael Nam Lee**

## Regions



### **North America**

#### **Garima Gupta**

Regional Executive Officer

### **UK & Europe**

#### **Nicole Brown**

Regional Executive Officer

### **Yuen Lan Chow**

Regional Partnerships Manager

### **Monique Ho**

Treasurer

### **Asia Pacific**

#### **Caitlin Burke**

Regional Executive Officer

### **David Loong**

Secretary & Treasurer

### **Karen Alarcon**

Regional Partnerships Manager

### **Jacinda Bouly**

Regional Mentor

### **Vairacona My Heart**

Events Manager

### **Caitie McClelland**

Events Manager

### **Suhashi Wickramasinghe**

Events Team Member

### **Roza Jiang**

Events Team Member

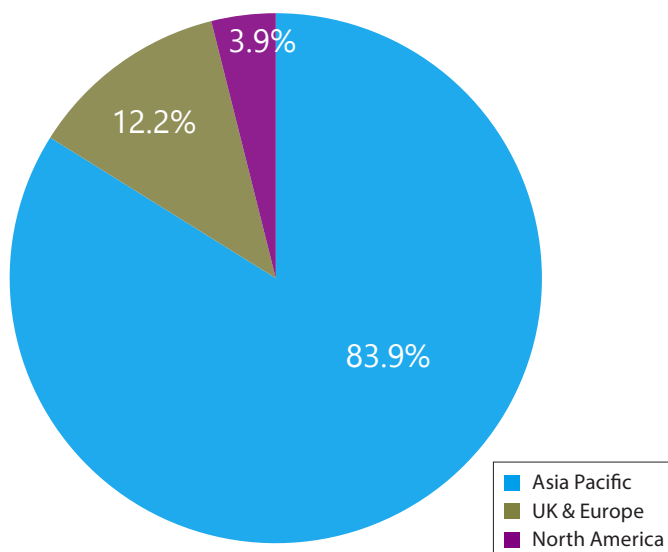
# Global Overview

2013 has seen Robogals teach an unprecedented number of girls – 6241.5 in all (repeated visits count as ‘half’ a girl)! Our chapters across the world have been busy, with the Asia Pacific region teaching 6011.5 girls, the United Kingdom teaching 872.5 girls, and North American region teaching 277.

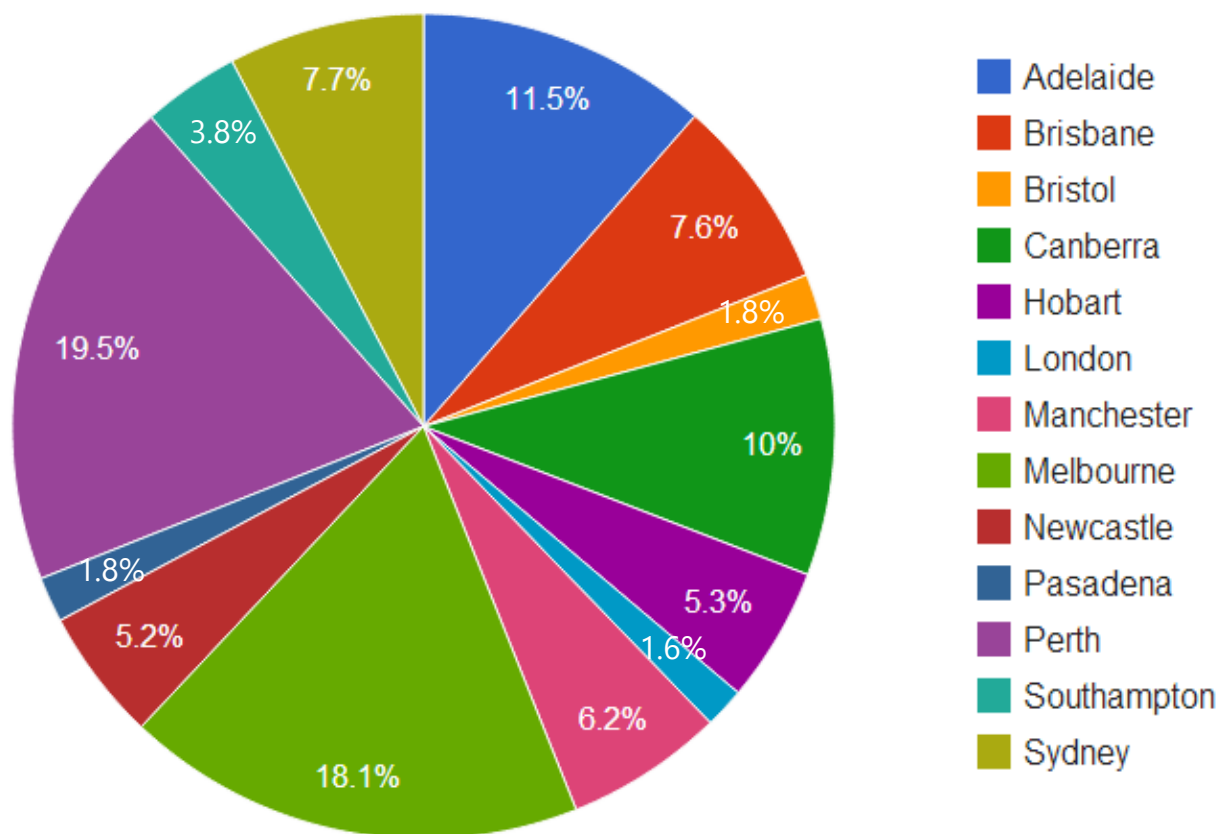
Our “original” region, the Asia Pacific, has led the charge this year, teaching a whopping 83.9% of students taught worldwide. A massive amount of work this year has been spent building up and bolstering the UK and newer North American region, and we hope to see the fruit of this hard work in the upcoming year.

Our stand out chapters in terms of girls taught in 2013 are Perth and Melbourne, 1270 and 1178 girls respectively. New chapters Toowoomba and Southampton also made their mark this year, managing to get themselves set up as well as teach 482.5 and 248.5 girls respectively.

**Girls Taught in All Regions**

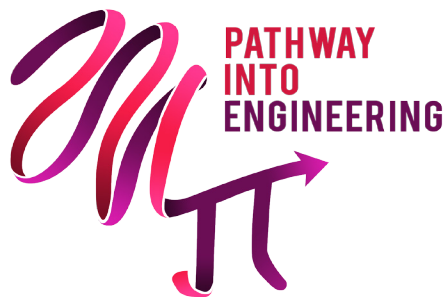


**Girls Taught by All Chapters**





# Initiatives



An exciting new initiative from Robogals is also underway and well in the works! The Robogals Pathway into Engineering Program or PiE, is a project aimed at young women above the age of 14 to discover the world of engineering for the first time or to further pursue their passion in this field.

The program will have a self-education component and a project that would connect the participants to industry members and university students that can help them with this journey.

A website is also being designed at this very moment and all other documents are ready to go. Sponsors will be approached soon to see if we could collaborate together and PIE is expected to be launched in Australia in June 2014!



The 2013 Robogals Science Challenge had a few changes to the structure and organisation. This year we introduced a new part to the structure called the Minor Challenges.

For the Minor Challenges component, we introduced three different types of engineering and one type science each month and gave the participants small challenges to complete.

The challenges had three levels of difficulty and though they were optional to participants, they were designed as a “warm up” to the competition to give the participants ideas for the main part of the competition as well as give them the opportunity to learn something new.

The video part of the competition – which is what we have had in previous years – we renamed the Major Challenge.



We launched the competition this year at the start of June, releasing with it the first round of Minor Challenges. In the first week of being launched, we sent 445 letters to schools as well as an email to all our sponsors on our mailing list to promote the competition. We also appeared on the radio station Triple R in July and asked Robogals Chapters to promote the competition at their workshops.

Our sponsors were also very helpful in promoting the competition with CSIRO promoting the Science Challenge through their medias such as Maths and Statistics and the Helix Club and Engineers Australia writing an article in their magazine. Students responded quite well to our promotion with over 70 people registering for the competition over the five months.



The Minor Challenge was quite successful in its first year with twelve groups, including one school (all their year 5 class), submitting at least one entry (up to three) online. The Major Challenge entries also increased from last year from 29 to 33. Increasing this again next year will be a goal to work on.

The competition closed on the 14th of October and three finalists were chosen from each division as well as three "Crowd Favourites".

The Awards Weekend was held on the 30th November to the 1st December with the Awards Ceremony being held at Engineers Australia and the Sunday being dedicated to visiting science related attractions such as Scienceworks, VSSEC and the Museum.





# Robogals Rural and Regional

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Robogals Rural and Regional (RRR) is an initiative designed to extend Robogals' reach past our chapter's home cities and give girls in rural and regional parts of Australia access to the opportunity to hear about engineering.

On the 20th April, sixteen eager, new RRR Ambassadors descended on Sydney for the annual ambassadors training weekend. The weekend included a variety of skill building activities and presentations by five speakers; Dr Kimberley Clayfield (CSIRO), Trudy Myers (Taylor Thomas Whitting), Jillian Kilby (J L Kilby Pty Ltd), Tish Seneviratne (PWC) and Callum Forbes to help them become effective RRR Ambassadors. They also had the opportunity to visit the Garden Island Navy Base!

Throughout the rest of the year, the ambassadors visited 17 schools and introduced 927 girls from rural Australia to engineering and the opportunities it can bring!

As one Ambassador, Anneleise Carratt, said:

“The Robogals training weekend was nothing like I expected. I gained confidence in myself, became motivated to fulfil my potential as a female engineer and became inspired by the amazing guest speakers. The weekend was action packed, informative and resulted in a close group of friends. I have come to the realisation that women in engineering are powerful and are eager to encourage young women to undertake a career in Engineering through talks in my local area.”



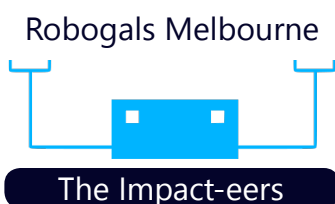
# Regions

Since the first ever SINE in 2009, the Asia Pacific region has grown from 24 excited students hoping to start a club at their university, to a 10 chapter, 1000 member-strong machine for change.

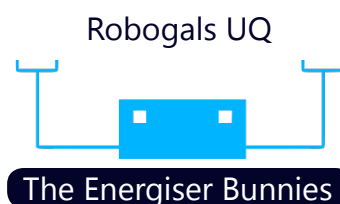
This year, SINE saw 76 Robogals descend on the capital of Australia, Canberra, for a crazy weekend filled with Robot heads, Lego Tarzans desperate for Pepsi, late night Karaoke (featuring the inaugural Robogals Boy Band), brainstorming, learning and sharing with some significant goals being set along the way. The Asia Pacific chapters have grown hugely in the past 12 months, and I hope that the next year has more excitement to offer.



Robogals Adelaide have decided to do everything well, beating their goals, being featured three times in local media, visiting Mt Gambier for a Rural and Regional trip, recruiting 60 new volunteers, hosting movie nights and robot wars, and forming new partnerships.



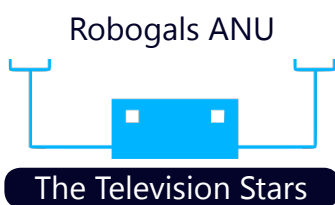
Robogals Melbourne have won the Asia Pacific Greatest Impact award for the fifth year in a row, for seeing an astonishing number of girls, and their great work engaging with their sponsors, and promoting Robogals and its goals to the wider community.



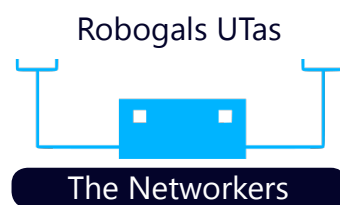
Having three committee members and a handful of volunteers didn't stop the UQ Robogals visiting more than 700 girls, running three Rural and Regional trips and mentoring a group of students (after school) to win prizes at the Young ICT Explorers competition with their Lego robots.



Robogals USQ filling up on their way to SINE 2013



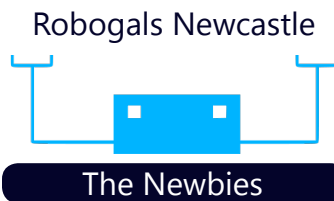
Our local TV stars, Robogals ANU, were featured on the Australian children's TV show, Prime Possum, in April! They also get a special mention for successfully running a river cruise, 150kms inland.



Robogals UTas have been to virtually every networking event and conference on their island (and even some on the mainland) promoting Robogals and improving their reputation in their community.



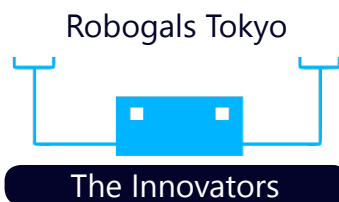
Western Australia isn't small, but Robogals Perth has made an amazing attempt at visiting all the girls their state. Their combined Rural and Regional trips have clocked up an astonishing 8,032km (4,991mi) of distance travelled, more than half of which was driven!



Our newest chapter turned up to SINE with infectious enthusiasm, desperate to learn as much as is humanly possible about how to run a Robogals chapter. Two months out they have seen enough girls to become official chapter!



Robogals UNSW have found an effective and innovative method of acquiring and maintaining relationships with sponsors. Sponsors and their clients were treated to two Robogals run robotics workshop for their children, with more workshops planned in the New Year.



Whether it is taking volunteers out for karaoke and hot pots, introducing the girls they teach to international Robogals via Skype, or inviting 73 Australians to come visit them in Japan; Robogals Tokyo are always doing something new and different.



After a rocky start, Robogals USQ made a comeback, not giving up and succeeding in becoming a fully-fledged chapter with a full committee and beating their goal for the year by an astonishing 150%. They also won the Best of the West Award for Access and Equity.



Robogals Newcastle at their first ever training



Robogals UQ at their Sommertech Workshop



Robogals ANU outside the Prime7 studio where they filmed Prime Possum



The year of 2013 has been a busy one in the UK with new chapters starting up, old chapters continuing to amaze and the first steps being taken in the establishment of the inaugural UK Regional Team.

It has been a privilege to work closely with the presidents of the UK over the past year, although some difficulties were encountered, as always, the strength of a team showed through. In 2014, we are looking to establish a strong Regional team and to host our biggest SINE yet!



Robogals Manchester

Robogals Manchester held many workshops throughout the year with a highlight being their participation in the local Deer Festival. They were also the gracious hosts of the 2013 UK SINE! They have grown from strength to strength with a strong team around them.



Robogals Bristol

Robogals Bristol has consistently worked hard this past year with a major highlight being their attendance to the UNESCO Conference in Paris! They became the first Robogals Chapter to host an international workshop.



Robogals Southampton

Robogals Southampton, although only becoming official in March this year have become a force to be reckoned with. They have gained several sponsors, nearly 200 girls in robotics workshops and have taken on the responsibility of hosting the 2014 SINE Conference, how exciting!



Manchester preparing for a festival



Bristol in Paris

Some exciting news: Robogals is starting new chapters across the UK! Robogals Liverpool, Robogals Loughborough and Robogals Cambridge will become official chapters soon: check out their orientation stalls!



Liverpool Orientation Festival



Loughborough Orientation Festival

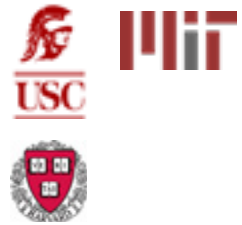
# Regions

## North America

This past year was fantastic for the newly formed North America Region! The 2013 NA SINE was the first of its kind; due to the size of the United States, the SINE was split into two events happening on either coast simultaneously.

The three rookie chapters at the California Institute of Technology, University of Arizona, and Columbia University did well and all reached their goals. We invited students to join the Robogals mission from four new schools:

- University of Southern California (Los Angeles, California, USA)
- Massachusetts Institute of Technology (Boston, Massachusetts, USA)
- Harvard University (Boston, Massachusetts, USA)
- York University (Toronto, Ontario, Canada)



We hope to see great things from all these chapters in the coming years. In the meantime, the following is an overview of each of the three original chapters!



**California Institute of Technology**  
(Pasadena, California, USA)

### Establishing Themselves

The Caltech chapter was active right away, recruiting volunteers at a school robotics competition. They even landed a spot in the school newspaper. They gained more publicity through their Facebook page and their website.



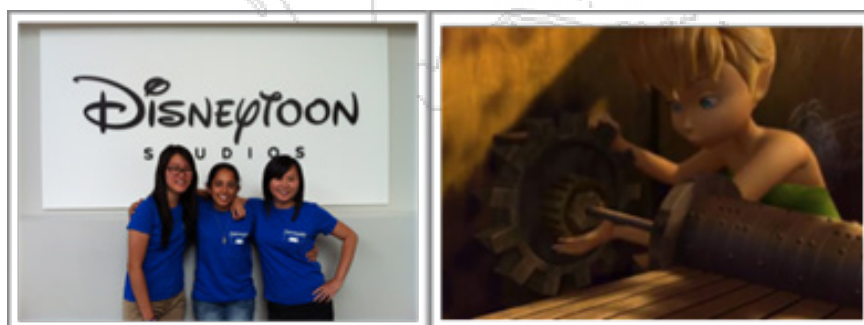
## Workshops

They conducted workshops at various schools in the Pasadena community, including the Polytechnic School and schools in the Pasadena Unified School District. The workshops at the Polytechnic were held on a weekly basis, so the Caltech volunteers were able to see some awesome progress in the girls.



## Community

Caltech collaborated with several organizations on campus and in their community to further their chapter and publicise for Robogals. The primary collaboration was with DisneyToon Studios - Robogals Caltech is helping Disney make a new Tinker Bell Movie about Tink being an awesome female engineer. Through such collaborations and grant funding from Caltech (ASCIT, Moore-Hufstedler Fund, Student Investment Fund), this chapter was able to raise almost \$4000 for their chapter.



## Future Work

This year, the Caltech chapter surpassed their goal! In the future, they hope to partner with more campus organizations to make Robogals a well-known organization within the community and beyond. They also hope to reach more schools and more girls with a new goal of 250 girls.





**University of Arizona**  
(Tucson, Arizona, USA)

### Establishing Themselves

The Arizona chapter worked to establish themselves in their community by partnering with their College of Engineering and local Girl Scout Troops. They became an official club, recognized by the campus administration. They were also able to establish contact with several middle schools in Tucson.

### Workshops

This chapter held multiple workshops, including some at Hohokam Middle School (teaching about robotics in conjunction with sustainable energy) and some at Quail Run Elementary School. They also participated in Imagine Engineering Day, where they were able to reach ~100 girls.



### Future Work

In the future, this chapter hopes to step it up in terms of recruiting and fundraising - for the workshops held this year, the robot kits used were on loan. Hopefully in the next year, they can raise enough money to have some NXT kits of their own. The Arizona Chapter reached its goal of teaching 50 girls this year and hopes to surpass its new goal of 100 girls next year.

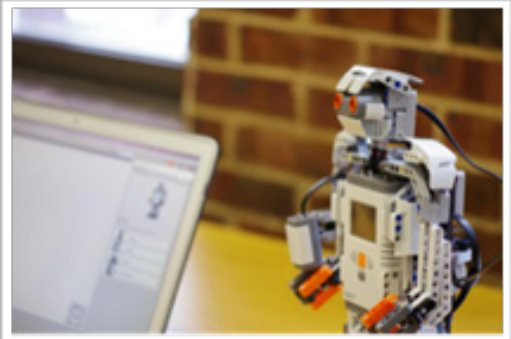
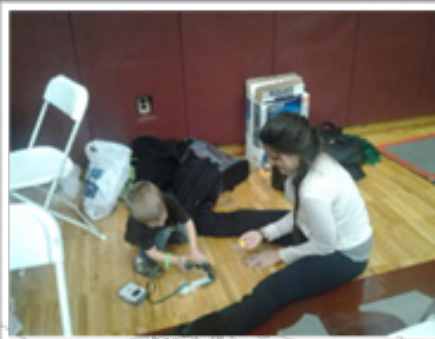


**Columbia University**  
(New York, New York, USA)

### Establishing Themselves

This chapter is still working on becoming known in their community - they are in the process of joining with the campus Society of Women Engineers (SWE) chapter so that they have a larger group of volunteers to draw from. They are also in the process of collaborating with the Robotic Education Office of New York City.





### Workshops

This chapter took a loan from Global to obtain a set of NXT kits, which they used to hold workshops for the local Boys & Girls Club, where they were able to teach 50 kids, and also to man a stall at the New Jersey Science Festival.

### Future Work

In the future, the Columbia chapter hopes to teach 200 girls and reach more parts of the NYC community through their work with the Boy & Girls Club.

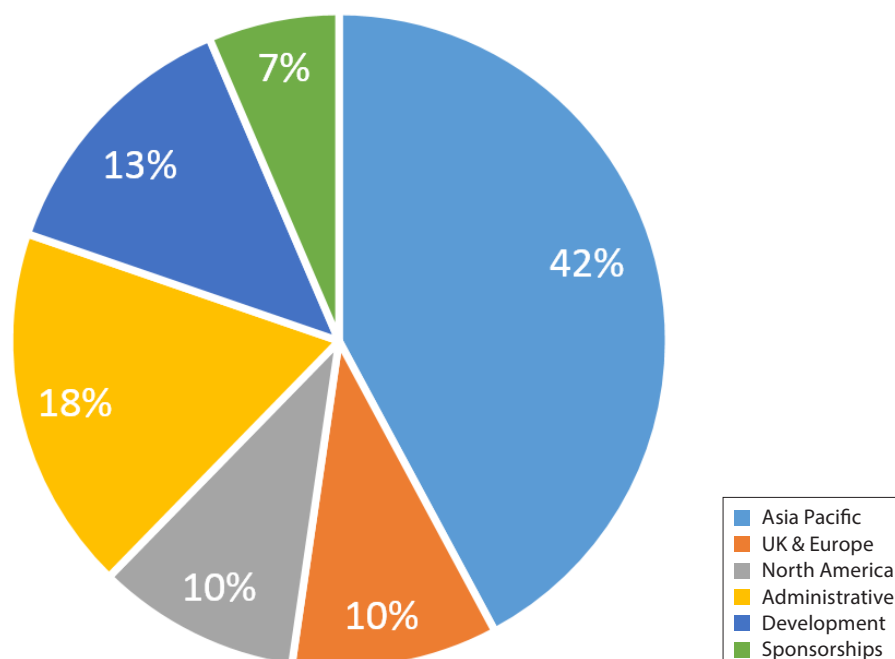




# 2013 Financial Statements

With almost all revenue being derived from sponsorships, fostering Robogals' international presence could not be possible without the support from our sponsors. The use of funds is thoughtfully budgeted, with the process reviewed quarterly. Below is a snapshot of how funds are strategically utilised internationally for the running of Robogals.

**Robogals Costs Distribution**



Region specific costs include all costs necessary to run local SINE annual conferences, and any grants distributed to chapters. In the Asia Pacific region, major events also include the Science Challenge and the Robogals Rural and Regional Ambassadors program.

Development costs relate to activities that develop and promote initiatives. This includes marketing costs and also allows our representatives to participate in industry events and conferences.

Administrative costs include all costs involved in the day to day operations of Robogals.

Sponsorships are given to organisations who successfully apply and share similar values with Robogals. Sponsorships in 2013 include science related events and sponsoring an Australian Robocup team to compete overseas.

*Please contact [accounts@robogals.org](mailto:accounts@robogals.org) for any enquiries or to request a copy of Robogals' Financial results for the year ended 31 December 2013.*

# Partnership

The engineering industry has recognised the need for workplace diversity and has taken positive action to build the pipeline of young female engineers through support of Robogals and its initiatives.

Robogals' steep upward growth trajectory would not have been possible without both the financial and in-kind support that professional engineers and their companies have offered Robogals over the years. These organisations are a credit to the engineering industry and Robogals hopes to continue these strong partnerships into the future.

## Key benefits to partnering with Robogals include:

- Supporting gender diversity in the engineering profession.
- Engaging with university student leaders with a passion for engineering communication and gender equity.
- Supporting a global and high-growth organisation that is making a large-scale impact.

Robogals partnerships have developed significantly since its inception, and now provide more than financial assistance to the organisation. Key engagement programs with partners have been initiated in the past year alone, and some of these are highlighted below.

### Sponsors Advisory Council

An advisory group comprised of highly committed sponsors (platinum & gold level) which review Robogals activities and provide recommendations on how Robogals can further its reach and impact using industry resources.

This group was founded in 2013 and key outcomes included targeting students at decision-making milestones (Year 9, Year 10 and Year 12), using in-kind sponsor resources (site visits, bus rentals) and implementing an events calendar for better chapter engagement.

### Robogals Careers Newsletter

Launched in 2013, the Robogals Careers Newsletter provides an opportunity for partners to submit careers opportunities timed with vacation and graduate recruitment, and also to submit specialised profiles on young female engineers at their organisation.

The newsletter also includes job application advice, and has been circulated to Robogals volunteers and some university careers advisors.

## National Event Attendance

Partners are invited to network with Robogals volunteers at key national events (SINE & RRR program), and in 2013 saw the attendance of over 15 sponsoring organisations at these events.

## Chapter level Engagement

Partners are invited to attend nationally-sponsored industry networking events held at local chapters, with pilot program successfully launched in Melbourne in 2012.

## Volunteering in Schools

Some partners have participated in a pilot program in Melbourne to facilitate workshop volunteering in schools, and have been able to participate in a total of 6 visits over the past year.

## Scholarships

Some partners have piloted scholarships programs to female university students, and have even found suitable vacation work students as part of the process.

## Special Projects

Some partners have instigated special projects with Robogals which involve skilled employee volunteering to develop new initiatives or plans. Some of these include a high-level communications strategy and Skills Development Workshop plans.

Interest in these was initiated by sponsors, and Robogals refined the scope and purpose of this involvement to create further value for volunteers and the female engineering community.

If Robogals aligns with your partnerships goals and you would like to take steps to creating a partnership, please get in touch with Karen Alarcon, the 2014 Regional Partnerships Manager, for more information.

THANKS!



Robogals would like to thank all our volunteers, sponsors, partners, and supporters.

The achievements of 2013 are all a result of your time, energy, and dedication.

# Sponsors

Platinum



Part of the Lend Lease Group



AUSTRALIAN  
CONSTRUCTORS  
ASSOCIATION



IT'S HOW  
WE CONNECT

# WOMEN

IN THE AUSTRALIAN DEFENCE FORCE

Gold



Silver



**Deloitte.**



**Google**



Bronze

**ERICSSON** 

**ConocoPhillips**



**WorleyParsons**  
resources & energy



Supporters







This Annual Report covers our activities and performance for the period Jan 1 2013 to Dec 31 2013. The information included in the report has been determined through consultation with the Robogals Global team and reviewed by our Board.

***Contributors:***

Michelle Freedman (Editing Engineer)

Sam Cheah (Editing Engineer)

Roza Jiang (Formatting Engineer)

James Li (Formatting Engineer)

Robogals Global and Regional Team 2013