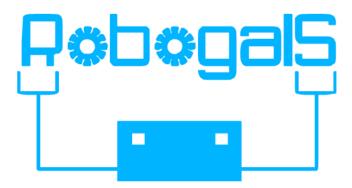




# **Annual Report**

2015



Robogals is an international, not-for-profit, student-run organisation that aims to increase female participation in Engineering, Science and Technology through fun and educational initiatives aimed at girls in primary and secondary school.

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# Letter from the Chair

# **Lizzie Brown, FIEAust**Chair of the Robogals Board

Dear Robogals volunteers, supporters and friends,

As Directors of Robogals, we are very proud of the organisation's achievements over the past twelve months. We would like to celebrate the contribution of the hundreds of Robogals volunteers around the world who are working together to inspire girls to pursue careers in engineering. We would also like to acknowledge the immense commitment of time and energy made by the Robogals leadership teams - at a chapter, regional and global level.

This year, Robogals has delivered 942 workshops to 20,160 school students across Australia, Asia, North America, the United Kingdom and more recently in the Middle East. Each of these workshops provides a valuable opportunity for more young women and men to be inspired and engaged with robotics and related engineering activities. New volunteer chapters haven opened in North America & the Europe, Middle East and Africa regions, and successful volunteer conferences (SINE - Seminars Inducting New Executives) were held in Newcastle, New York and Manchester.

The past twelve months have seen some significant changes on the Robogals Board. In April 2015, Robogals said thank you and farewell to several Board members including Bronwyn Evans (Robogals Board Chair 2011 - 2015). Bronwyn was recognised as a Life Member of Robogals for her substantial contribution to the organisation during this period. Mark Parncutt became Acting Chair for 6 Months and led a significant refresh of the Board's role, composition and memberships - to take Robogals to the next level of impact. As part of this transition, existing Board members Marita Cheng, Jamie Evans, Mark Parncutt and Nicole Brown (CEO) were joined by Dayle Stevens, Erin Kelly, Fiona Borrelli and Lizzie Brown.

The new Board has a number of significant priorities for the coming year - to update the Robogals legal entity to better reflect it's global presence and scope of work, to review and refresh partnerships with supporting companies and to strengthen governance practices and organisational systems. Most importantly, it's time for Robogals to look ahead to the coming three years and put in place a strong, clear and bold strategy. Since it's formation 8 years ago, Robogals has inspired thousands of students about engineering and science. Since then, the need to improve and support women's participation in STEM careers has become more publically acknowledged and Robogals is now one of many organisation working to address the gap. Robogals now has the opportunity to reflect on how it can make the most significant contribution in the future, powered by its ever expanding network of volunteers and supporters.

Robogals' greatest asset is, without a doubt, our people. While this is true of any organisation, it is especially true for an organisation run wholly by our volunteers: your commitment to diversity in engineering is what makes us who we are.

Best wishes, The Robogals Board.

# **CEO's Report**

# **Nicole Brown**

# Chief Executive Officer, Robogals



The year of 2015 has seen a change in the leadership team of Robogals, appointment of new Board of Directors, and further business development. Changes in the leadership team brings about new ideas and fresh perspectives, which need to be addressed and also established within and between regions. We are very proud of the achievements of the year and would like to thank all our volunteers, executives, partners and supporters who have made this past year one to remember. It has also been a year of challenges and opportunities.

We have also been recognised by the external community for our work in Robogals. Our Founder Marita Cheng was recognised in Engineers Australia's Top 100 Most Influential Engineers in Australia and selected as a Winner in the Australian Women's Weekly's Women of the Future Awards. Our outgoing Chief Development Officer, Sam Cheah, was presented with the Tillyard Prize - the oldest and most prestigious prize available to bachelor degree students of the Australian National University for her contribution to the university; and I was named as a Queens Young Leader Runner in the inaugural year of the program. This involved the completion of a one year course run out of the University of Cambridge, England and the opportunity to connect and support other young leaders from around the Commonwealth. Congratulations to Marita and Sam on their amazing achievements this year!

#### **New Board of Directors**

After a lengthy process, 2015 saw a new board of directors take the helm of Robogals. These dedicated professionals have brought Robogals to a new level of operation, accountability and stabilisation that would not have been possible without them. Each brings a specific skill to the team and I would like to welcome:

- Lizzie Brown, Chair.
- Mark Parncutt, co-founder.
- Marita Cheng, co-founder.
- Dayle Stevens
- Erin Kelly
- Fiona Borrelli
- Jamie Evans

Further details about our directors can be found under The Robogals Team, page 28.

#### **Leadership Team**

In 2015, we farewelled four valuable members of the global leadership team of Robogals: Caitlin Burke, Sam Cheah, Lauren Hassall and Taryn Musgrave. I would like to take this opportunity to acknowledge their hard work and commitment to the organisation over the past few years - in particular to Sam Cheah who was a great supporter of mine when we started in the leadership team together in 2013.

These departures however, provided an opportunity for others to step up into leadership roles in the organisation. We have welcomed Julie Boulton, Chelsea Edmonds, Mandy Jor and Yusra Hussain. It has been a privilege to work with these incredible women, especially as they started in the grassroots of the organisation.



Leadership Team 2014 (from left to right): Samantha Cheah, Caitlin Burke, Taryn Musgrave, Lauren Hassall, Nicole Brown, Garima Gupta

#### **Business Development**

As Robogals grows in size, we have committed ourselves to improving different aspects of our organisation to support this growth. There are many projects we have identified and the main focus in 2015 has been: online feedback systems, team assessments and the Self Evaluation Tool as well as our SINE conferences held in each region.

More information on this can be found in our Development Team report.

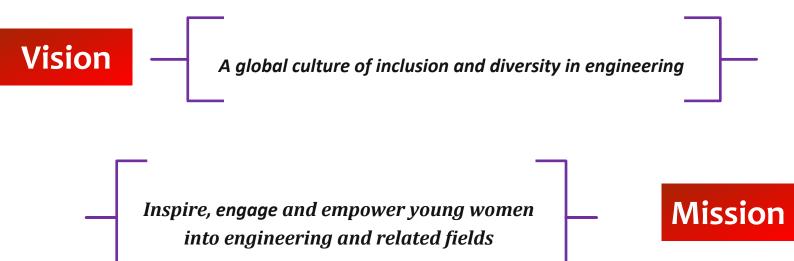
#### Milestones of the year

This year Robogals ran 942 workshops worldwide reaching 20,160 girls! Both are an increase on the numbers reached in 2014 and brings our total young girls impacted by our workshops to a staggering 51,291 since founding! An amazing achievement for all volunteers: thank you for your commitment to our mission: to inspire, engage and empower young women to pursue engineering and related fields.

I would like to thank all our members and supporters for an amazing year and we look forward to working with you in 2016!

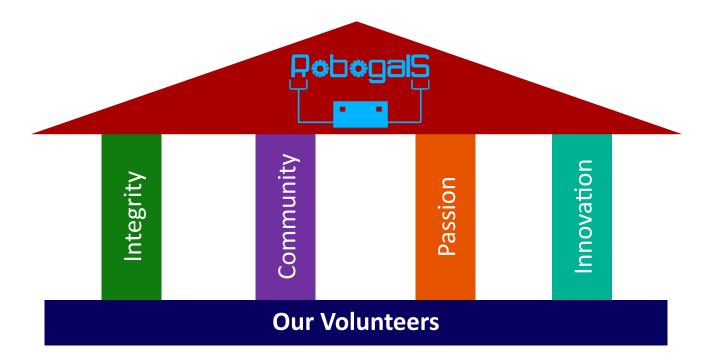
# Robogals - An Overview

In light of Robogals' significant growth and transformation since inception, our board took the time to think about our presence in the community. This resulted in a new set of vision, mission and pillars that were communicated in 2015.



# **Pillars**

Our pillars are the key values that support our mission and guide us in our everyday activities. Our volunteers have been exceptional in displaying these characteristics, which has resulted in our success and growth thus far.



# What We Do

# Workshops

Robogals coordinates our university student volunteers to visit girls in schools to run robotics workshops and other workshops. The primary purpose behind our presence in schools is to introduce engineering, science and technology to young students and build their awareness.

Using programmable robots, we teach the principles of engineering in a fun and creative manner.



Robogals also provides pathways for females inquisitive about engineering to further explore and develop their interests. Our Initiatives teams exist to provide learning opportunities to students in addition to the core workshops offered by Robogals chapters.

Our suite of initiatives aim to unite students interested in STEM and allow girls to take charge of their studies and careers, by participating in inquiry-based learning and gaining longer exposure to the engineering community.

# **Initiatives**



Our major initiatives outside school workshops are:

- The Science Challenge (Australia)
- Pathways into Engineering (Australia)
- Engineering Challenge (UK)

Some of our past initiatives also include:

- Robogals Regional & Rural (RRR)
   Ambassadors program (Australia)
- National Curriculum (Australia)

# **Our Journey**

Since Robogals' founding in 2008, we have seen the organisation transition from groups of student clubs at local universities to a leading global organisation. We recognise there is still room for improvement, but we are very pleased with the progress and growing impact we have been able to make.

In 2008, Robogals began as a single idea of taking robots to schools to introduce the girls to engineering. This idea expanded through our founder Marita Cheng's vision: "If we can do this at one school, why can't we do it at all the schools?". With the support of co-founder Mark Parncutt and other students, the organisation grew - first expanding to London in 2009 when Marita went on exchange and to other major cities in Australia the same year.



In 2010 we saw the first ever United Kingdom (now EMEA) SINE conference held - providing the region the first chance to meet together and begin to form the collaborative culture we see in the organisation today.

The Robogals Science Challenge was launched in 2011 in Australia which still provides additional activities for students to complete at home or at school with a parent or mentor. This aims to increase engagement outside the classroom.

Robogals North America began in 2012 and saw the first conference held at California Institute of Technology. Since 2013, we have seen the organisation expand to Japan, Philippines, South Africa, Canada and New Zealand. We have seen the launch of regional teams as well as a global team, the introduction of a new board of directors, a new website, and introduction of a development team to focus on business development. We have also broadened our scope to include more than robotics to provide our members the opportunity to share their different engineering passions.



With all these changes, we have still made an impact. We continue to be supported by industry and we have reached over 51,000 girls through interactive engineering based workshops. An amazing success that would not have been possible without the work of our incredible volunteers.

Thank you to all our volunteers and supporters past and present - your support is invaluable and we appreciate all your work!

# chapters in

# 2015 Snapshot

10 countries

942 workshops in

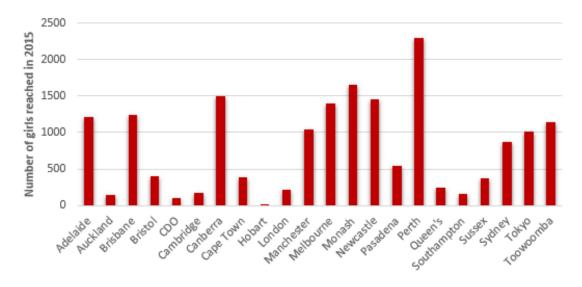
378 schools.





20,160

girls inspired!



Having surveyed our culture for the first time,

our executive volunteers reported an 88%

satisfaction level working with Robogals

and find their role fulfilling!

# International Impact!

Our Tokyo chapter, despite being young, have been trendsetters in showing us new and different ways of running workshops. One of their most impressive feats in 2015 involved a first-of-its-kind journey in Robogals history - international workshops!

Robogals Tokyo visited Bangladesh in February 2015, as part of a Japan & Bangladesh sister schools project. The 3 member team was joined by students from the Chittagong University of Technology as they visited local primary schools and hosted interactives robotics tournaments for the children.

All people involved in this collaborative effort took away some interesting cultural experiences while sharing their passion for engineering and technology. The Tokyo chapter finished their trip having seen more than 700 children and took away great memories of the enthusiastic people they got to meet!



# **Alice Springs Rural Trip**

Two of our chapters who share the Australian outback, Adelaide and Perth, came up with a great idea to share their resources and venture to one of the most remote places in the country—Alice Springs. Located in the middle of the Northern Territory, children in this remote town do not gain the same opportunities and exposure as in most other cities. Hence, the 13 workshops they ran proved popular and valuable!

Both chapters covered more than 10,200 kilometres travelling to the Alice Springs, and were impressed by the enthusiasm shown by the 197 girls and 99 boys. It is fantastic to see our chapters collaborate and work together to make a unique difference to the regional community! We hope to see more such ventures from our chapters in coming years.



# **AP Science Challenge**

The Science Challenge (SC) is Robogals Asia Pacific's annual competition for girls aged 5 to 15, and has thrived with over 120 girls participating this year.

SC 2015 opened in July with the release of fortnightly Minor Challenges, followed by the Major Challenge in September. We received over 60 Minor and Major Challenge entries with Physics, Biology and Mechanical Engineering being the most popular categories. The competition closed on October 25th with three finalists and a "Crowd Favourite" selected from each division.

The Awards Weekend was held on November 29th & 29th in Melbourne, with the ceremony hosted at the University of Melbourne. The finalists also enjoyed tours of Melbourne and a day dedicated to exploring local science attractions, such as Scienceworks and the Victorian Space Science Education Centre.

In 2016, we will be reviewing the rewards structure to best deliver this event to the finalists across Australia.





# **Pathways into Engineering**

Pathways into Engineering (PiE) underwent a structural change in 2015 to being a completely online project-based program. Each PiE cycle requires participants to complete two projects and one industry project designed by a Robogals industry partner. In 2015, LendLease contributed a number of projects towards the PiE curriculum.

There will be two PiE cycles in 2016 (1 Mar—30 Jun and 25 Jul—30 Nov) and we hope to see 5 to 10 girls participating in each cycle. We are working to secure more industry partners to help create projects, as well as host a Google Hangout with all the participants.

# **EMEA Robogals Challenge**

Our EMEA region was delighted to launch their inaugural Robogals Challenge this year! This is a nationwide competition for girls, which enables them to learn a bit more about science and engineering by conducting projects or experiments with a friend, parent or another mentor. Entries to the competition are submitted online in the form of videos, photos and writing in three age categories.

The competition will span across five months, culminating in an awards ceremony. We are also happy to announce to have three amazing judges helping us choose the winners for the Robogals Challenge 2015: Helen Arney, Helen Czerski and Danielle George!

# **Regional & Rural Trips**

Over the previous years, Robogals has laid an emphasis on ensuring we reach out to communities outside the metropolitan universities where most chapters operate. This has been achieved through the Robogals Regional & Rural (RRR) initiative as well as trips organised by chapters to travel to regional locations and host workshops at local schools.

In 2015, some of the towns visited by our chapters include Alice Springs, Armidale, Bega, Coffs Harbour, Goulburn, Jindabyne, Kalgoorlie, Lithgow, Orange, Rockhampton, Tamworth and Whyalla. This has been a great effort considering the large distances our volunteers have covered in visiting these places. The reception to these workshops have also been fantastic as it is not everyday that children in regional areas get to see role models in STEM!

Our chapters are proud in being able to make an impact outside their local community, in spreading STEM awareness to lesser exposed areas.



# **BBC Make It Digital Tour**

Over the British summer, our EMEA volunteers had a great time taking part in BBC's Make It Digital tour, which travelled around the UK to promote the digital world and coding. One of the activities organised by Robogals was the chance to program a robot Dalek from Doctor Who to navigate through a maze.

As well as teaching people to program a Dalek, Robogals also gave Techtalks to the general public, which discussed engineering, the diversity of their applications and the gender imbalance in the field. Looking to the future of digital, they spoke about addressing the gender gap in STEM by encouraging girls to pursue these options.

Over the 13 destinations in the tour, our volunteers introduced around 2,500 children to programming! We hope their interest and enthusiasm in computing and engineering continues!

# **Sponsors Advisory Council**

Platinum and Gold level partners were once again invited to take part in Robogals' Advisory Council. This year, the format of the council was changed to reduce the impact of geographical barriers on attendance. Two sessions were run simultaneously in Melbourne and Sydney, with partners electing which location to attend. The sessions were then connected through real-life conferencing systems with all members essentially attending the same session! Conversation in 2015 centered on finding new ways to involve partners for the New Year.

# Global Village Project

Our Georgia Tech chapter in Atlanta were involved in a Global Village initiative in 2015, which involved hosting a series of workshops in an alternative middle school for refugee girls.

After first introducing the girls to LEGO robots, they have had a "STEM Hour" every week to engage further. This collaboration has been a fantastic opportunity for refugee children to learn engineering concepts and find out about future opportunities!





# **Robogals Industry Galas**

Over the last few years, our Melbourne, Perth and UQ chapters have been trendsetters in organising networking events for our volunteers to meet industry partners.

Following the now iconic Robogals Industry Gala (RIG) held annually in Melbourne, more chapters across the globe have caught onto this. In 2015, Monash and our EMEA region had their shot at hosting their inaugural events.

These events have been highly valuable for our student volunteers to interact with industry representatives, and learn more about fulfilling their engineering career aspirations.

# **Partner Workshops**

In 2015, Robogals hosted industry workshops at our partners' offices, offering a variety of engineering and problem solving tasks to budding engineers. Our Melbourne chapter have pioneered designing workshops for the duration of a business day - allowing working parents to drop their children off before work and take them home after their working day!

Feedback for these workshops has been overwhelming positive, with some industry partners asking for repeat visits! This program has allowed industry representatives to get a feel for our activities while being able to increase our reach amongst girls. We hope to see this program expand to other chapters in the future.



# **New Robogals Website**

Followers of our website would have noticed that a new version was launched in late 2015, and is still under development. Our old website was brought down by a server crash, but our volunteers have converted this into an opportunity to develop a single official domain that will host the Global website, as well as the Regional and Chapter websites together!

This will centralise and enforce consistency of the Robogals brand throughout our regions and chapters, as well as remove the need for chapters to maintain their own websites. This project will be completed in early this year with chapters gaining access in April 2016.



# myRobogals Re-launch

Our Software Team is currently undertaking a project to improve myRobogals, our internal chapter management portal. This project involves updating the Django framework, implementation of a workshop repository and general workflow improvement.

Improvements include making it easier for volunteers to enter workshop statistics, grouping workshops by categories such as time and location, a workshop builder which will provide a template and examples from the Repository, and the ability to submit workshop ideas to the repository.



# **2015 T-Shirt Competition**

We are proud to wear t-shirts to schools, that have been uniquely designed by our very own volunteers! Yet again, the amazing talent of our members was on show this year as we received some absolutely mind -blowing T-shirt designs for our annual competition. The fantastic winning design is featured here.

Moving forward, in 2016, we are looking at different options for the sourcing if our T-shirts to ensure we are purchasing from socially aware companies. I hope you all wear your shirts with pride and look out for our 2016 competition.





# **SINE Conferences**

Once again this year, all our regions saw their largest ever SINE (Seminar Inducting New Executives) conferences held, highlighting the organisation's growth. Moreover, we had some interesting environments as well - the Asia Pacific one was at a Sport & Recreation Centre in a picturesque island, the North American version was held amidst USA's large snowstorm and Europe, Middle East & Africa's conference at Cambridge.

These conferences provided a great opportunity for all our chapters in the region to come together and celebrate their achievements while training our future executives. Programs targeted at specific skills like teaching, conflict management, marketing and data analysis were offered as well as support for chapters to plan for the upcoming year.

The annual Robogals awards were also presented in each region, a fitting recognition for our hard working chapters!

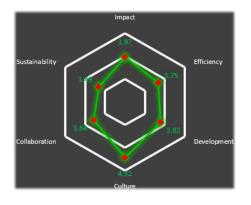
# **Professional Development**

Our PD platform is designed to provide development and growth opportunities for our Robogals members. Our university student volunteers can access training across a range of topics including:

- Strategic Planning
- Resume Writing
- Project Management

The content for some of these topics have already been created and will be released in the upcoming year once the delivery platform is developed. In the future, we will be looking to team up with our professional partners to deliver content of high quality on a regular basis.

# **Chapter SET**



As Robogals has grown rapidly, we have realised our impact goes far beyond just reaching girls in schools. In line with this, we think our evaluation of success and operational planning need to transform.

This year saw the introduction of a Self Evaluation Tool (SET) that encourages our chapters to plan and set goals in a holistic manner and track them regularly. This has allowed our activities and measures of success to include our culture, sustainability and development in addition to impact.

Our future work will also explore improved ways to measure and communicate our impact externally.

# **Asia Pacific**

# Chelsea Edmonds APAC Regional Executive Officer



Robogals Asia Pacific continued to excel in 2015, with each of our 13 chapters reaching new heights. The past year saw chapters working hard to improve the quality of their workshops, with many now running workshops across various engineering disciplines, as well as reaching out into both new and old rural and regional areas.

In 2015, a focus was on improving communication and collaboration across chapters and the regional team. In April, the inaugural Presidents Development Weekend was held - giving the chapter presidents the opportunity to come together, share ideas and gain new skills to assist them in leading their chapters. Additionally, we also hosted virtual meetings for volunteers in similar positions to discuss new ideas, and the regional team ran chapter visits across Australia.

SINE 2015 was hosted by the Newcastle chapter in Broken Bay. The passion and excitement in each of the volunteers was exciting to see, and as always - the weekend provided a fantastic opportunity for executives across the region to connect and collaborate. SINE also gave the opportunity to celebrate chapter achievements across the year, and particular congratulations went to our award winners: Robogals Tokyo (Biggest Impact and the UP Award), Robogals ANU (Biggest Impact) and Robogals UQ (Best Initiative).

In 2016, the regional team is looking to launch several new initiatives such as the Alumni Network program, to allow past Robogals volunteers to keep in touch with the Robogals community. The Initiatives team will be fully launching the Pathways into Engineering (PiE) initiative, and the chapter support team will be working with our chapters to assist them with the fantastic work they do reaching out to girls of all ages, and continue building on the Robogals volunteer network!

We would like to thank our partners, supporters, and most of all the volunteers across the region for their valuable contributions to Robogals in 2015. We look forward to continue working together in the exciting new year ahead!

405 volunteers

contributing to 666 workshops

in 307 schools.



14,030 girls inspired!



# **Adelaide**

Our South Australian chapter has spent a lot of miles on the road this year with various people! Their highlight was a trip to Alice Springs in the Northern Territory, for which they teamed up with the Perth chapter and went on a road trip to teach regional girls.

They also collaborated with University of Adelaide Motorsport Team to run workshops for the children of Schneider Electric, their local partner. They also made sure to show up in the Adelaide Mini Maker Fair, becoming famous around the city too!

# **Australian National University**

Our ANU chapter had a high profile year with presence at the National Science Week activities in Canberra (Science in ACTion) as well as a week of workshops at the National Portrait Gallery.

They were well recognised for their efforts in reaching 1504 girls over the year as they picked up our Biggest Impact award at our SINE while finishing runner-up for the university's Club of the Year. The chapter executives were also featured in The Age newspaper.



# **Auckland**

Having joined the Robogals family as a new chapter in early 2015, Auckland has been steadily growing over the last year. This saw them finish as runner-ups in the annual Auckland University Club Awards for the Best New Club.

Auckland have focused on building their presence in the community through workshops at local libraries including the Onehunga Community Library and Auckland City Library's Makerspace.

# Cagayan de Oro

Our Filipino chapter has been a flag-bearer in marketing and building relationships with partners through their innovative approach.

This year's highlight was organising a BEST (Bringing Engineering, Science and Technology) Program at Balulang Elementary School, with activities like assembling sumobots and tower building.

CDO also participated in a Women Techmaker Event in the Philippines, giving young women in STEM an opportunity to showcase their work.





# Melbourne

Our home chapter in Melbourne has been very busy strengthening their interactions with their partners in 2015. Their key highlight was definitely the Annual Industry Gala at NAB headquarters which many looked out for and was well commended.

In addition, they have run workshops for children of employees in Telstra and Cisco while snagging a site visit to IBM for their volunteers!

# Monash

Monash has been one our fastest growing and innovative chapters as evidenced through their variety of achievements in 2015!

When they have not been designing new workshop themes for kids, they have been organising events like a Women in STEM seminar, partner workshops with ANZ and Cisco, their inaugural Industry Gala and workshops at the Dandenong library.



#### Newcastle

Our Newcastle chapter had a special guest while teaching Year 5 & 6 girls at Swansea Public School, when they were visited by Yasmin Caitley, State Member of Swansea.

Their popularity was also strengthened during a massive rural trip where they covered Armidale, Tamworth and Coffs Harbour, seeing 634 girls in one go!

Having hosted the Asia Pacific SINE as well, Newcastle has had a busy year and is looking forward to more in 2016.

### **Perth**

Our West Australian chapter collaborated with EWB (Engineers Without Border) in significant work this year, during which they inspired 542 students across the state, of which 324 were girls.

They also joined forces with Adelaide to embark on a long rural trip Alice Springs, while experimenting with Makey Makeys in their workshops too. Their volunteers also enjoyed the ConocoPhillips High Tea which gave them the chance to network with industry professionals in Perth.



# **Tokyo**

Our Tokyo chapter is famous for their marketing abilities, which saw them broadcasted on national television at Nagano. Their incredible year also featured Robogals' first ever international workshop, when they taught over 700 children in Bangladesh!

They also organised workshops at the National Museum of Emerging Science and Google's Roppongi office. Having deservedly taken away the region's Best Impact award at SINE, all eyes are on them again in 2016!



# Toowoomba

The Toowoomba chapter in regional Queensland continued their growth journey, teaching 1139 students in 2015! They also had contributed significantly to robotics clubs in the community while organising the Robocup.

Toowoomba also got the opportunity to try out their newly procured LEGO EV3 robots in a recent Codo Dojo event they organised, giving them great confidence for the coming year.

### **UNSW**

Robogals in Sydney spent significant time visiting students in regional towns this year, with workshops in Lithgow and Orange. They also organised a number of events with industry partners including workshops with Microsoft, Schneider Electric, NAB, Telstra and Intel while organising a Discover Engineering Day with Engineers Australia.

With their Girl Guides catapult workshop and a BBQ at the ENG-SOC, they are expecting to see more volunteers this year!





# **University of Queensland**

Our UQ chapter in Brisbane enjoyed a successful year in which they picked up the Club of the Year award for UQ Engineering. They also had a shot at organising their inaugural Industry Gala which was a great experience for both the organisers and volunteers.

Their work around the community, which included a Rockhampton Rural Trip seeing 205 girls, was also recognised by the Gympie Times in the regional newspaper. They are looking forward to ensuring their strong growth is sustainable in the community year.

# **Europe, Middle East & Africa**

# **Yusra Hussain**EMEA Regional Executive Officer



2015 has been a defining year for Robogals EMEA - we have progressed from a region that was defined by the UK and one chapter in South Africa, to having one chapter in Africa, the Middle East and several in Europe.

Over the course of this year, we have made out greatest impact to date, through each chapter hosting multiple workshops using LEGO Mindstorms with block programming as well as RobotC and LittleBits! Some of our chapters have started teaching 3D printing as well as other design tools.

Robogals EMEA has been a part of several region-wide initiatives this year, where we toured with the BBC for their Make It Digital Campaign over the summer, teaching over 2000 girls, along with involvement in other national fairs over the year. The Robogals Challenge was launched in 2015, involving three celebrity judges and a prize-ceremony at the Big Bang Fair (the UK's largest STEM fair) in March 2016.

We have also conducted a Micro-Conference, in an effort to give back to our dedicated volunteers. This professional development conference was our first live-streamed conference.

Along with our initiatives, we have had a successful run with our Public Relations, gaining several followers on Twitter and Facebook, as well as appearing on BBC Radio (local and regional), and having articles published on the IET website. We have also maintained a Quarterly Newsletter to each of our partners, sponsors and other external stakeholders.

2016 promises to bring us greater involvement in Regional fairs and festivals, such as the BETT Show, the Big Bang Fair and the Sussex Science Festival!

177 workshops

4,563 girls inspired!

124% growth on last year!



EMEA SINE Conference 2015/16, Cambridge, UK



### **Bristol**

In 2015, Robogals Bristol finally completed the transition from NXT to EV3 robots! Bristol volunteers are now trained on EV3 software and EV3s are already being used in schools. This was also a year when Robogals Bristol collaborated with volunteers from other chapters for the first time ever, through the BBC's Make It Digital roadshows during the summer.

# **Cape Town**

2015 has been a fabulous year for Robogals Cape Town. We visited various local high and primary schools where we played with Little Bits and Lego Mindstorms Robots—making everything from sirens to oil spill avoiding robots!

We partnered with the UCT SHAWCO society, and had some fantastic workshops at disadvantaged schools. In September we welcomed the new committee—and we're looking forward to another explosive year!





#### Sussex

This year, Robogals Sussex said a warm hello to many new committee members, who have shared their personal highlights. Olivia, president, has particularly enjoyed overseeing all of the wonderful changes that this incredible, new committee has been able to produce.

Josh, marketing, said his highlight was being part of a team of likeminded people. Vanessa, Schools, enjoyed the moment when a teacher approached her to tell us that her students "haven't stopped talking about Robogals". Mel, Training, loves to hear the inspired questions ask about robotics while exploring tech. Nancy, Treasurer, found it rewarding to see the huge amount of support for Robogals from out university and other companies in the area.

Overall, it's been a fantastic year with the chapter also winning the Up Award in the 2015 EMEA SINE for their achievements!

### Manchester

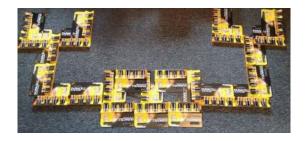
Every second Sunday of the month we try to get as many volunteers as possible to wake up early and set up at CoderDojo in Greater Manchester, a free coding club for children and young people interested in programming. We've been helping out since December 2014 and it's honestly one of the most fun and interesting workshops we run in the community.

Not only do the vast majority of the children want to be there, making it much easier to engage them, but a lot of them have previous coding experience, allowing us to challenge them and really explore our robots' potential.

Unlike most of the other workshops at Manchester CoderDojo, working with the robots allows children to see how their code affects something physical and concrete, which accounts for its popularity — we've had children wait eagerly between workshops because they wanted to play with the robots so badly. CoderDojo is also a place to meet people from all walks of life, from art students to engineers, who are united by their love of programming.

Going to CoderDojo has been amazing for helping to engage children and also for taking inspiration from the activities which other volunteers put on. We hope to continue volunteering there!





# Southampton

We had a great start to the year, with a large number of volunteers attending our introductory events. We've held several events on campus this year, where groups of kids have been able to come in and play with the robots, and this has let us try some new things.

A number of our volunteers have become national STEM ambassadors this year which will help us to become more well-recognised as an organisation. We've also started running a series of after-school clubs at a local secondary school, which has been great fun, and has let some of the kids get more involved in programming.

All in all, this has been a fabulous year for Southampton. We've achieved a lot of great things and we're really looking forward to doing the same again next year.



# **North America**

# **Garima Gupta**NA Regional Executive Officer

Wow, what an awesome year it has been for Robogals North America! We scored our first regional sponsorship with Kobo Inc, started two new chapters, and held our largest SINE since starting Robogals here in 2012. Our goals for the year centered around two aspects:

- 1) transitioning Robogals from a "student club" to a professional organisation
- 2) Fostering a sense of community within the region and building a connection with the global organisation

With these intentions in mind, we set up a Facebook page, Twitter feed (we even got a "like" from Miss America 2014, Nina Davuluri!), and a Wikipedia page. To gain credibility, we partnered with organisations like Uncubed and the Canadian Federation of Engineering Students (CFES).

In the coming year, we hope to make even bigger strides, by establishing our first major regional sponsor-ship with WorleyParsons, becoming a recognised non-profit in Canada (we are already an incorporated non-profit in the United States), and starting more chapters. We plan on doing these things during a period of transition, as most of our regional team moves on to other awesome things!

# 1,567 girls inspired!



99 workshops

116% growth on last year!

The snowiest SINE ever in New York, 2016!

23



# **Caltech**

The Caltech chapter has had a great year running workshops with Scratch and LEGO NXTs - they recently received funding for a 3D printer and have just purchased a classroom set of Circuit Scribes!

They have been working closely with a nearby Girl Scout Troop so gaining new technology means exciting workshops ahead. Their latest workshop involved students building Bristlebots, an easy and fun robot involving a motorised toothbrush head and battery!

# **Columbia**

Our chapter at Columbia University has been busy running an afterschool STEM class for a nearby school using their NXT robots. They've also had partnerships with several schools in the area, including the Bank Street School for Children.

Additionally, the chapter's executive board has been doing outstanding work recruiting members and training volunteers. The chapter also did an incredible job hosting the 2016 NA SINE conference at the Columbia University campus!



# An elementario di monaroli constanti in anticiali di giologia di acciono anticiali di giologia di acciono di a

# **Georgia Tech**

The Georgia Tech chapter has done some amazing work with the Global Village Project, an alternative middle school for refugee girls. After introducing the girls to NXT robots, the chapter has been running "STEM hour" workshops with them every week. This partnerships has exposed many students to engineering concepts, coding, and even LEGO for the first time!

Additionally, the chapter has collaborated with many on-campus organisations including Kids@Kollege and CHEER, a local program for gifted students. Their latest accomplishment includes raising funds for a brand new set of NXTs!

# **Queens University**

Our chapter at Queen's University has not only been running regular workshops, but has also expanded their executive board and raised enough funding to purchase all new robots! They've begun a fantastic initiative to address member sustainability, creating positions and hiring for two first year (or Frosh) representatives.

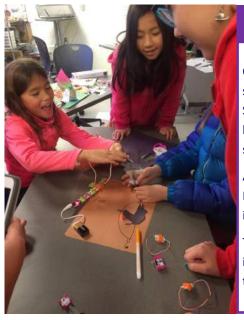
They held a great on-campus workshop with GoCodeGirl and were recently approved for a referendum where future student funds will go towards improving workshops! The chapter was also awarded the "UP" award at the 2016 NA SINE conference!

# **University of Calgary**

One of our newest chapters, the University of Calgary was recently chartered as a student organisation at their university! They were able to send their entire executive board to the 2016 NA SINE conference, where they received the "Future Game Changers" award!

Kicking off their first semester as a full-fledged chapter, they held their first public clubs showcase to recruit members and volunteers!





# Wellesley

Our chapter at Wellesley College has spent their semester bringing students to their campus for workshops using Little Bits and Scratch. They were recently able to partner with the university business school to bring a brand new set of volunteers to workshops!

Additionally, the chapter has been working hard to build a strong Robogals community through social events and fundraisers, including a successful on-campus bake sale.

They've begun a partnership with nearby Olin College of Engineering, hope to work with MIT in the future, and were recently featured in a local TV spot!

Our partners have again played a vital part to Robogals' success in 2015. They have actively joined in our events, dedicating their time to further our cause.

Some of the benefits of Robogals partnership include:

- Supporting gender diversity in the engineering professions
- Engaging with the future generation of engineers
- Supporting a global and high-growth organisation making a large-scale impact
- Engaging with student leaders with a passion for engineering who are agents of change in their profession

We would like to thank all our partners who have supported us in 2015 and look forward to engaging with them further in 2016.

#### **Asia Pacific Partners**























**Europe, Middle East & Africa Partners** 





\* Note: Shell UK partnered with EMEA for the uConference event only.









pi-top







# **EMEA** μ-Conference

Robogals EMEA held their first Micro-Conference in November 2015 in Manchester, UK. Not only did this conference offer volunteers valuable soft skills training, insight into Robogals as a global organisation and fun interactive workshops but also included a highly anticipated Networking Dinner.

Held at Sakana, a pan-Asian restaurant, this gave volunteers from across the region a chance to meet representatives from EMEA's sponsor AECOM and the conference's sponsor Shell. Representatives shared their career paths in the industry and opportunities for volunteers at their companies.

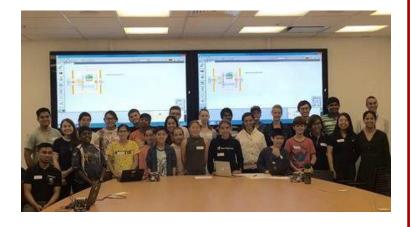
Volunteers greatly appreciated the change to meet and socialise with role models and employees in an informal environment.

Far right in the below image: Sarah Keltonic, Risk & Controls Analyst at Shell

# **Partners' General Meeting**

2015 marked our first Partners' General Meeting. The purpose of this meeting was to inform and receive input from all our partners of the large changes that are happening in our organisation, including potential changes to branding, values and school workshops.

Partners had the opportunity to offer their input and were able to chat with our CEO, Nicole Brown, and AP REO, Chelsea Edmonds, about the proposed changes. Due to the successful reception of this initiative, we hope to run it again in 2016.



# **WorleyParsons Scholarships**

During 2015, our Gold Partner, WorleyParsons, generously supported scholarships for Robogals volunteers who had shown exceptional leadership skills. In total, three scholarships and two grants were available.

This was done to rewarded more of the amazing people that keep Robogals running and growing. The field of applicants was very competitive with over 20 entrants for each category. As such, the recipients and runner-ups of the scholarships were offered to spend one day at WorleyParsons to experience what it would be like to work in the industry.

We hope to again offer scholarships to our dedicated volunteers in 2016.

# **Board of Directors**



Not-for-profit Leadership

Why Robogals:

Because we need women to help engineer a positive future.

Lizzie Brown, Chair



Why Robogals:
To work with amazing individuals to make a difference in a field that needs it.

**Nicole Brown** 

**Chief Executive Officer** 



Legal

Why Robogals:

Because everyone should be equally empowered and STEM is the future.

Fiona Borrelli



Marita Cheng, Co-founder
Entrepreneurship
Why Robogals:
Working with cool people to make a difference.



Jamie Evans
Academia
Why Robogals:
Marita Cheng—what else do you need??



Finance and Audit

Why Robogals:
Female representation in STEM is an ongoing issue of importance and being part of Robogals to help address this issue is a rewarding challenge.

**Erin Kelly** 



Mark Parncutt, Co-founder

Software and Operations

Why Robogals:

So girls can see engineering as a potential career path, and enjoy it as much as I do!



Engineering Leadership

Why Robogals:
I'm passionate about making a difference in gender equality in STEM & so is Robogals, a perfect match!

**Dayle Stevens** 

# The Robogals Team

# **Leadership Team**



Nathan Chan Chief Financial Offer & Company Secretary



Julie Boulton
Chief Development Officer



Mandy Jor
Chief Operations Officer



Chelsea Edmonds
Regional Executive Officer



Garima Gupta
Regional Executive Officer



Yusra Hussain
Regional Executive Officer

# **Operations & Development Teams**



Kellie Ly
Deputy COO



Qamran Tabo
Media & Marketing



Sriraj G.S.
Business Improvement



Caitie McClelland

Development



Shayryl Mae Ramos

Development



Helen Tong

Development



James Owens
Development

# **APAC** Regional Team



Chelsea Edmonds REO



Lara Antoniolli Deputy REO



Henry Chui Financial Controller



Ruwan Devasurendra
Initiatives Director



Vi Nguyen Regional Mentor



Sharon Chen
Communications



Chris Dabrowski Marketing



Pasangi Wickramarachchi Chapter Resources



Karen Alarcon
Partnerships Director



Simone Bush
Partnerships Manager



Sherilyn D'Costa
Partnerships Operations



Alison Mantegazza
Partnerships Manager



Mun-Xin Lee
Project Administrator



Suhashi Wickramasinghe Science Challenge



Shirley Tian
PiE Co-Manager



Jacqui Beech
PiE Co-Manager

# The Robogals Team

# **EMEA** Regional Team



Yusra Hussain REO



Daniel Branch Social Media



Natalie Cheung
Partnerships



Susie Coleman Events



Michael Howell
Robogals Challenge



Doga Kuyucu
Communications



Dorodi Krishty
Conferences



Subha Singh Regional Mentor



Amy Tong
Secretary / Treasurer



Ellie Welch
Public Relations



Garima Gupta REO



Nanavati Low Partnerships (USA)

# **NA Regional Team**



Nicole Proulx
Partnerships (Canada)



Shriya Raje Marketing



Lily Sundararaj
Secretary / Treasurer



Cherish Weiler Regional Mentor

# Financial Reporting Pack

# ROBOGALS INC.

AUDITED FINANCIAL STATEMENTS FOR THE YEAR ENDED 31 DECEMBER 2015

# ROBOGALS INC.

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### Statement of Profit or Loss for the Year Ended 31 December 2015

	Note	2015	2014
(Loss) / Profit Before Income Tax Income Tax Expense	1	(85,997)	17,249
(Loss) / Profit After Income Tax		(85,997)	17,249

# Statement of Comprehensive Income for the Year Ended 31 December 2015

	2015	2014
(Loss) / Profit for the year	(85,997)	17,249
Other comprehensive income for the year	•	_
Total comprehensive (loss) / profit attributable to members	(85,997)	17,249

#### ROBOGALS INC.

# Statement of Financial Position as at 31 December 2015

	Note	2015 \$	2014
Current Assets			
Cash		149,805	101 694
Receivables	3	25,134	191,684 78,408
Total Current Assets	3	174,939	270,092
Total Assets		174,939	270,092
Current Liabilities			
Payables	4	2,744	5,150
Scholarship liability	5	6,250	13,000
Total Current Liabilities		8,994	18,150
Total Liabilities	4430,4934	8,994	18,150
Net Assets		165,945	251,942
Accumulated Funds			
Balance at beginning of year		251,942	234,693
(Loss) / profit for the year		(85,997)	17,249
Total Accumulated Funds		165,945	251,942

The accompanying notes form part of these financial statements

# Statement of Changes in Accumulated Funds for the Year Ended 31 December 2015

Note	Retained Earnings	Total
	234,693	234,693
	17,249	17,249
	251,942	251,942
	251,942	251,942
	(85,997)	(85,997)
	165,945	165,945
	Note	234,693 17,249 251,942 251,942 (85,997)

# Statement of Cashflows for the Year Ended 31 December 2015

	Note	2015 \$	2014
Cash flows from Operating Activities			
Receipts in the ordinary course of business		156,897	153,535
Interest received		5,613	7,288
Payments to suppliers and employees		(204, 389)	(179,412)
Net Cash provided by Operating Activities	6 (b)	(41,879)	(18,589)
Net (decrease) / increase in cash & cash equivalents		(41,879)	(18,589)
Cash & cash equivalents at beginning of financial year		191,684	210,273
Cash & cash equivalents at end of financial year	6 (a)	149,805	191,684

# Notes To and Forming Part of the Financial Statements for the Year Ended 31 December 2015

#### 1. STATEMENT OF ACCOUNTING POLICIES

This special purpose financial report has been prepared for distribution to the directors of Robogals Inc. to fulfil the association's financial reporting requirements under the Associations Reform Act 2012. The accounting policies used in the preparation of this report, as described below, are consistent with the financial reporting requirements of the Act, and are, in the opinion of the committee, appropriate to meet the needs of members.

The financial report has been prepared on the accrual basis of accounting including the historical cost convention and the going concern assumption.

The requirements of Australian Accounting Standards, Accounting Interpretations, and other professional reporting requirements, do not have mandatory applicability to Robogals Inc, except to the extent required by the Act, because it is not a "reporting entity".

#### Sponsorship Income

Sponsorship income is recognised as revenue when received.

#### Income Tax

Robogals Inc. is not liable for income tax. The Income Exempt Charity status is subject to the association meeting the terms of the Deed of Settlement with the Commissioner of Taxation of the Commonwealth of Australia.

#### Cash

For the purposes of the statement of cash flows, cash includes cash on hand and in at call deposits with banks or financial institutions, investment in money market instruments maturing within less than twelve months, net of bank overdrafts.

#### Trade Receivables

Trade receivables are measured on initial recognition at fair value. Appropriate allowances for estimated irrecoverable amounts are recognised in profit or loss when there is objective evidence that the asset is impaired.

#### Goods and Services Tax (GST)

Revenue, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Tax Office. In these circumstances the GST is recognised as part of the cost of acquisition of the asset or as part of an item of the expense. Receivables and payables in the statement of financial position are inclusive of GST.

#### Prior Year Comparatives.

Prior year comparatives disclosed in the detailed statement of profit or loss have been restated to reflect the reallocation of expense classifications.

# Notes To and Forming Part of the Financial Statements for the Year Ended 31 December 2015 (cont'd)

		2015 \$	2014 \$
2.	OPERATING (LOSS) / PROFIT		- honey
	Operating (loss) / profit before income tax has been determined after:		
	Sponsorship	102,500	187,500
	Other Operating Revenue: Other Sundry Income	6,736 109,236	7,288 194,788
3.	RECEIVABLES		
	Current		
	Trade and Other Receivables Less Allowance for Doubtful Debts	27,634 (2,500)	80,908 (2,500)
		25,134	78,408
4.	PAYABLES		
	Current		
	Trade Creditors GST Other payables	123 551 2,070	73 4,317 760
		2,744	5,150
5.	SCHOLARSHIP LIABILITY		
1	Current		
	Scholarship liability	6,250 6,250	13,000 13,000
			,0,000
	Non-Current Scholarship liability		
			-

The \$6,250 scholarship liability under current liabilities is made up of scholarships as follows;

\$5,000 has been carried forward from 2012. This \$5,000 was provided by Worley Parson's. This fund has not yet been spent.

The remaining \$1,250 is part of the \$10,000 scholarship provided by the Australian Constructors Association in the 2013 financial year over 2 years (\$5,000 per year over 2014 and 2015). \$5,000 of the initial \$10,000 scholarship was disbursed in 2014 and \$3,750 was disbursed in 2015. The remaining \$1,250 was disbursed in February 2016.

The \$3,000 scholarship from Ericsson Australia Pty Ltd received 2014 was fully disbursed in 2015.

# Notes To and Forming Part of the Financial Statements for the Year Ended 31 December 2015 (cont'd)

		2015	2014 \$
6.	NOTES TO THE STATEMENT OF CASH FLOWS		
(a)	Reconciliation of Cash		
	Cash at the end of the financial year as shown in the statement of cash flows is reconciled to the related items in the statement of financial position as follows:		
	Cash at bank and / or on hand	149,805	191,684
(b)	Reconciliation of Cash Flow from Operations with Profit after Income Tax	(85,997)	17,249
	Add / (Less): (Increase) / decrease in trade & other receivables (Decrease) / increase in trade & other payables	53,274 (9,156)	(33,715) (2,123)
	Net Cash provided by Operating Activities	(41,879)	(18,589)



# Independent Audit Report To The Directors of Robogals Inc.

#### REPORT ON THE FINANCIAL REPORT

We have audited the accompanying financial report, being a special purpose financial report, of Robogals Inc. (the "Entity"), which comprises the statement of financial position as at 31 December 2015, statement of profit or loss, statement of comprehensive income, statement of changes in accumulated funds and statement of cash flows for the year then ended, a summary of significant accounting policies, other explanatory notes.

The responsibility of the Directors for the financial report

The directors of the Entity are responsible for the preparation of the financial report that gives a true and fair view and have determined that the basis of preparation as described in Note 1 to the financial statements, which form part of the financial report, is appropriate to meet the requirements of the Associations Reform Act 2012 and is appropriate to meet the needs of the members. The directors' responsibility also includes such internal control as the directors determine is necessary to enable the preparation of a financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

#### Auditor's responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We have conducted our audit in accordance with Australian Auditing Standards. These Auditing Standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the financial report that gives a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the directors, as well as evaluating the overall presentation of the financial report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### INDEPENDENCE

In conducting our audit, we have complied with the independence requirements of the Associations Reform Act 2012. We confirm that the independence declaration required by the Associations Reform Act 2012, provided to the directors of Robogals Inc. would be in the same terms if provided to the directors as at the date of this auditor's report.

#### **AUDITOR'S OPINION**

In our opinion the financial report of Robogals Inc. is in accordance with the Associations Reform Act 2012, including:

- a. giving a true and fair view of the Entity's financial position as at 31 December 2015 and of its performance for the year ended on that date in accordance with the accounting policies described in Note 1; and
- complying with Australian Accounting Standards as described in Note 1 and complying with the Associations Reform Act 2012.

#### BASIS OF ACCOUNTING

Six hungers

Without modifying our opinion, we draw attention to Note 1 to the financial report which describes the basis of accounting. The financial report has been prepared for the purpose of fulfilling the directors' financial reporting responsibilities under the Associations Reform Act 2012. As a result, the financial report may not be suitable for another purpose.

Stannards Accountants and Advisors

Michael Shulman Partner

Dated: 26/4/16

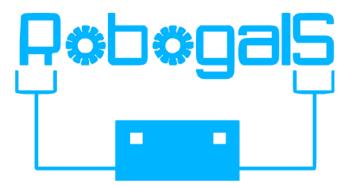
Stannards Accountants and Advisors Pty Ltd A.C.N. 006 857 441 Postal: PO Box 581, South Yarra, Vic 3141 Level 1, 60 Toorak Road, South Yarra, Vic 3141 Tel: (03) 9867 4433 Fax: (03) 9867 5118 Email: advisors@stannards.com.au

stannards.com.au

Partners Marino Angelini, CA Michael Shulman, CA Nello Traficante, CPA Jason Wall, CA Nicole Postan, CA

# Detailed Statement of Profit or Loss for the Year Ended 31 December 2015

	2015	2014
	95.0	*
Income		
Sponsorship	102,500	187,500
Other revenue	6,736	7,288
Total Income	109,236	194,788
Expenses		
Accounting fees	350	385
Accommodation	53,553	18,430
Advertising	-	598
Bad debts	4,574	6,550
Bank fees	925	974
Consulting fees	20,000	_
Event expenses	7,368	31,810
General ICT expenses	9,995	1,626
Global loan expense	5,595	_
Grant expenses	4,071	9,558
Insurance	1,852	1,210
Legal fees	1,513	587
Other admin expenses	6,055	1,269
Other miscellaneous	78	456
Production	4,909	6,353
Salaries & wages	24,842	15,908
Travel	49,222	81,472
Postage & freight	15	332
Website	316	21
Total Expenses	195,233	177,539
Profit for the year	(85,997)	17,249



The Annual Report encompasses our activities and performance for the period of 1st January 2015 to 31st December 2015. The information included in this report has been determined through consultation with the Robogals Leadership Team and reviewed by our Board of Directors.

#### **Contributors:**

Sriraj G.S. (Editor)

Robogals Global and Regional Teams 2015/16

Robogals Chapters 2015/16

