

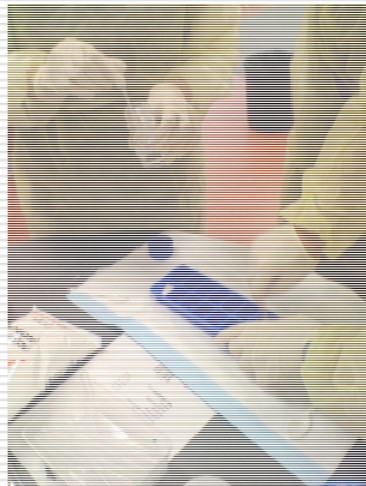


# Outreach Activities

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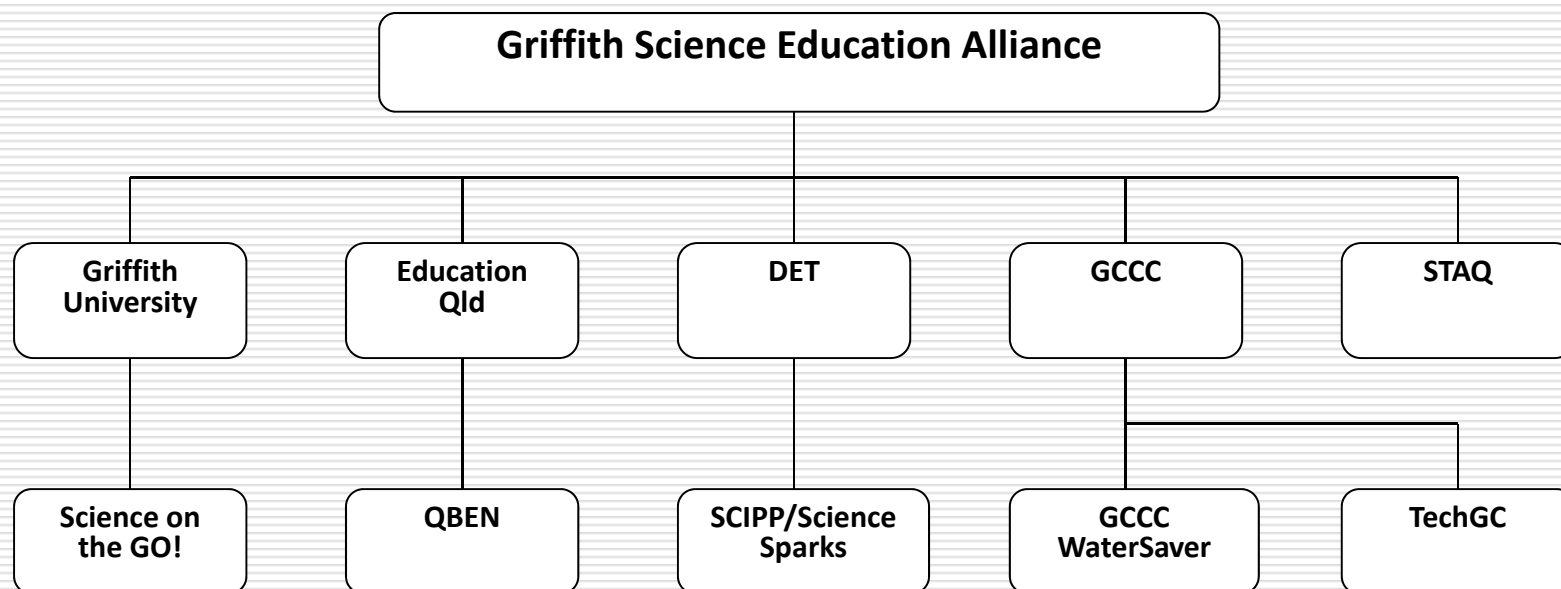
Richard John

Program Leader Griffith Science Education Alliance  
and Science on the GO!





# The Griffith Science Education Alliance



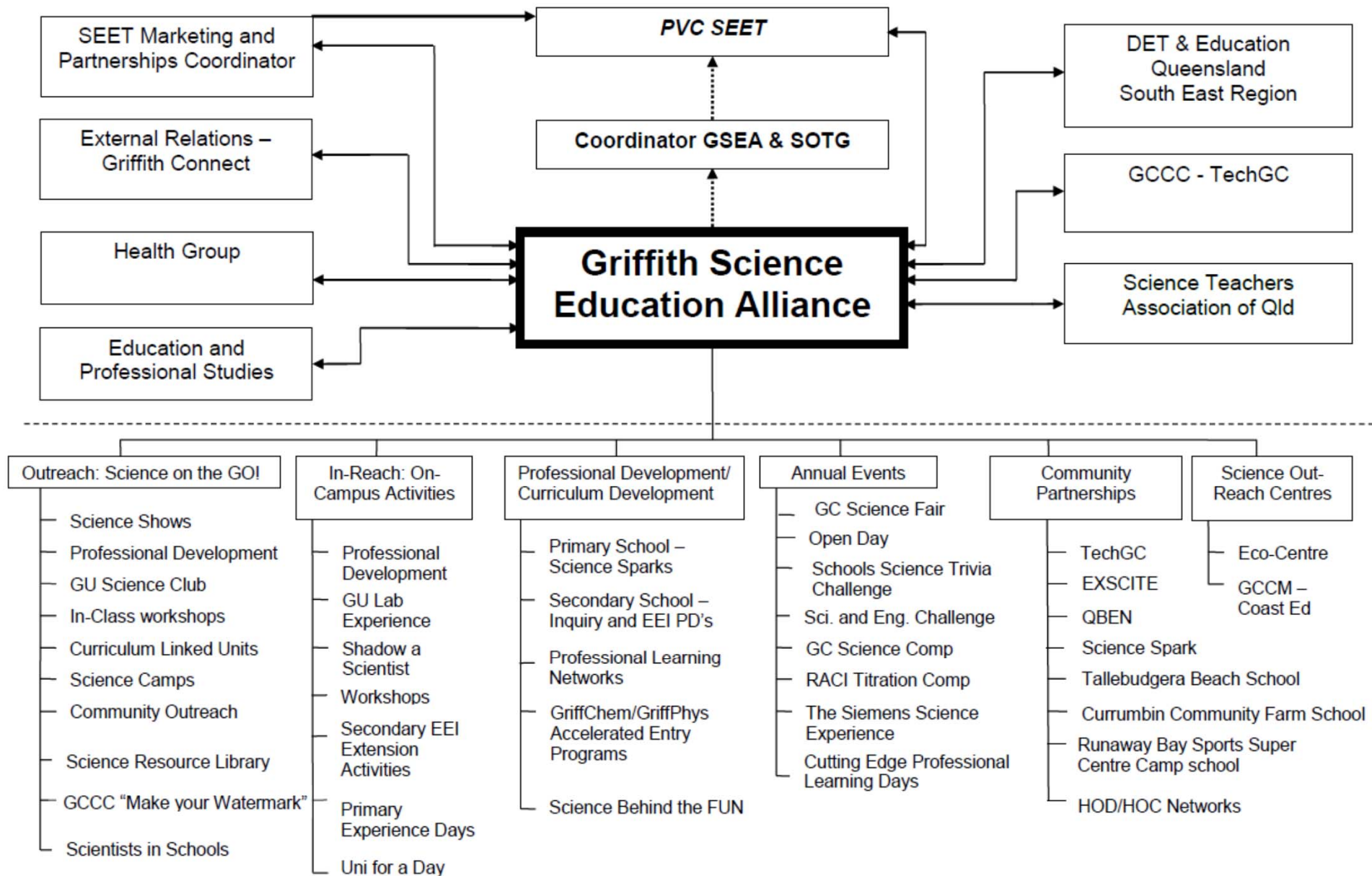


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## Science on the GO!



- Takes people, resources and expertise from Griffith direct to classrooms of local schools as well as the broader community
  - Also brings teachers/students to Griffith
- Engaged in excess of 130 000 students, teachers and general public in last five years
- Greater than 5500 teachers have undergone hands-on professional development







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## GSEA/SOTG - Objectives

- To raise general awareness and interest in science and science studies leading to increased enrolments at senior secondary and tertiary levels
- To assist individual teachers and teacher networks to adopt a hands-on inquiry based approach to science education to improve student engagement
- To provide a coordinated, region-wide approach to science education in the development and delivery of programs
  - Thus establishing clear links (and pathways!) between school science and tertiary science studies



## GSEA/SOTG - Funding

- In excess of \$4.2 million towards initiatives operated out of SEET offices over last six years
  - ~ 1% derived from Griffith
  - 2005-2007 Qld Govt Science Strategy – Science Education Partnership - Spotlight on Science **\$140K**
  - 2006 Science on the GO! van Jock McIllwain & Dreamtech (**\$25K**)
  - 2007-2009 Qld Govt Science Strategy – *Southern SCIPP* (**\$540K** over 3 years)
  - AGQTP & DET – *Primary Connections* roll-out 2007-2009 (**\$294K** over 3 years)
  - GCCC Watersaver “*Make your Watermark*” curriculum development 2007/08 (**\$60K**)
  - GCW SEET scholarships 2008-2010 (**\$70K**)
  - Griffith Science Resource Library (**\$15K**)
  - TMDEC Griffith Science Resource Library 2008- (**\$15K**)
  - 2010-2012 Qld Govt Science Strategy - Science Spark (~**\$2.7 million** over 3 years)
  - Tech GC 2010 (**\$5K**)
  - SOTG Endowment 2010 (**\$50K**)
  - Plus: Griffith Office for Community Engagement Grants (x2) – (**\$30K**)



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## GSEA/SOTG - Achievements

### ■ Connecting with Science

- ☐ 23 974 students engaged
- ☐ 1 397 teachers professionally developed
- ☐ PC awareness (pre 44%, post 100%)
- ☐ 97% teachers have taught PC subsequent to CWS
- ☐ 94 % teachers (90% HOC's) indicated PC was now the science program of choice
- ☐ 92% teachers (100% HOC's) indicated they were more inclined to teach PC after CWD
- ☐ 73% teachers (89% HOC's) indicated students were more engaged since adopting PC
- ☐ 67% of teachers indicated they were confident with teaching science since CWS
- ☐ 65% indicated they were teaching more science
- ☐ 75% HOC's (61% teachers indicated that student learning outcomes have improved since adopting PC

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## GSEA/SOTG - Achievements

### ■ Science on the GO! Camps

- In collaboration with the Tallebudgera Beach School SOTG coordinates two types of Science Camp activities for students
- 25 830 students from 125 schools across Qld and northern NSW
- Surveys carried out in 2007 and 2008
- Of 17 camp activities available
  - Teachers rated SOTG component as number one in terms of student engagement and educational value
  - Students rated SOTG component second behind speed boating activities but ahead of SeaWorld visit, body boarding, snorkeling, games nights, archery etc





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## GSEA/SOTG - Achievements

### ■ GriffChem/GriffPhys

- ❑ 25 local High Schools involved; pilot started in 2007/8 with 5 schools
- ❑ Of the 15 GriffChem students eligible to continue to yr 12, 9 successfully completed the course and were awarded automatic entry and/or credit for Chemistry 1
  - 8 of these enrolled in science related degree programs at Gold Coast
- ❑ Of the 12 GriffPhys students eligible to continue to yr 12, all were successful and awarded automatic entry
  - 7/11 enrolled in science related degrees at Gold Coast
- ❑ Of the 15 students that ended up at GU Gold Coast, 13 had single digit OP scores

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## GSEA/SOTG - Achievements

### Griffith Gold Coast SEET Enrolments (2006-2011)

- Demand for SEET places (1<sup>st</sup> preferences) at the Gold Coast increased by 51% over this period
  - Leading to a 17% average annual increase in enrolments
- Over the same time
  - overall increase in demand for places across entire University (13%), the Gold Coast campus (29%) and the rest of SEET (9.4%)
  - science enrolments rose by 20.5% across Australia
  - this compares unfavourably to the 26.6% increase across the whole university sector.
  - In Queensland, the relative downward trend was even more prevalent with only a 5.6% growth in science enrolments during this time.
- Clearly, the picture at the Gold Coast campus is extremely healthy by comparison,



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## GSEA/SOTG - Achievements

- 1<sup>st</sup> Year O-week survey
  - In 2009, 53% of 1<sup>st</sup> year students have experienced SOTG in some form;
    - 52% of these indicated that experience influenced their decision to come to Griffith
  - In 2010, 47% of 1<sup>st</sup> year students have experienced SOTG in some form;
    - 62% of these indicated that experience influenced their decision to come to Griffith
  - In 2011, 52% of 1<sup>st</sup> year students have experienced SOTG in some form;
    - 68% of these indicated that experience influenced their decision to come to Griffith



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## GSEA/SOTG - Recognition

### Awards and Honours

- Australia's Entrepreneurial Educator of the Year (2011) – B-HERT
- Best University Community Partnership (2011) – B-HERT
- Education Qld Showcase Award (Academic Excellence) (2010) – for our "EXSCITE" program
- ASTA Award for Service to Science Education (2009) – ASTA
- Peter Doherty Institute Award (2008) – DET Qld Govt
- RACI Award for Excellence in Chemistry Education (2008)
- Qld Smithsonian Fellowship (2007) – Premiers Dept Qld
- Inaugural Griffith SEET Group Service Award (2008) – Griffith
- Griffith Award for Excellence in Teaching (2006) – Griffith
- STAQ medal for Excellence in Science Education (2006) – STAQ





## GSEA/SOTG - Recognition

- *"May I congratulate the work of Associate Professor Richard John and Griffith University in the promotion of quality teaching and learning of science" and "I applaud the pro-active role of Griffith University collaborating with Ed Qld schools and districts in the promotion of quality teaching and learning in science." (Mr Ken Smith, former Director General of Education Qld)*
- *"The project facilitated by Richard and his dedicated team has already provided opportunity, inspiration and confidence for teachers and students to engage in science curriculum material and learning opportunities" and "I believe that the focussed efforts and collective enthusiasm and confidence that will be generated through the leadership of Richard John and his team and the partnership between Griffith University and Education Queensland will ensure that the Smart State vision will be a tangible reality for the students and teachers" and "One the major reasons why Griffith University was able to secure the Queensland Academy for Health Science on the Gold Coast campus was because of the outstanding work of Richard John and his Science on the GO! team". (Mr Glen Hoppner Regional Executive Director, South Coast Region, Education Qld).*
- *"Science on the Go is, in my experience, unique, integrating as it does primary, secondary and tertiary activities (for both students and teachers) into a coherent program that allows clear and consistent pathways to be identified for students and teachers from primary science through to tertiary levels. The breadth of impact and the evidence of the effectiveness of the approach taken by Science on the Go are both very impressive". (Ms Shelley Peers, Manager, Public Awareness, Australian Academy of Science)*

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## GSEA/SOTG - Acknowledgements

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-



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