“The Futures in Engineering (FiE) program provides students with an authentic engineering experience through interaction with a range of engineering professionals, university academics and current engineering students. Students participating in this program will be better informed to take action, make plans and get organised towards engineering career pathways”.

- 32 high calibre students in Year 10 are selected from public high schools across Tasmania (rural and urban).

- Selection is based on skills in maths and science, and interest in engineering (written application and informal interview at “Taster Day” in 3 locations).

- Group visits to industry partners and University campuses in southern Tasmania (UTAS, 3 days) and northern Tasmania (AMC, 2 days) (and the Engineers Australia office) start and end the program; these visits build rapport amongst the student group (many are from small and regional communities) and showcase the diversity and merits of engineering as a career (and pathways to studying engineering after Year 10).

- Each student is placed with an industry-based engineering mentor (5 - 10 days each) from June to October, and creates a video diary and project report.

- approx. 100 students applied in 2012 and attended a 1-day Taster Day in Launceston, Burnie or Hobart, from which 32 students were selected (25% are girls).

- Program is led by Engineers Australia (Tasmania Division), in partnership with the Tasmanian Education Department, UTAS School of Engineering and the Australian Maritime College, and ~ 35 industry partners, each year.

- 140+ students placed from 2008 – 2011.

www.engineersaustralia.org.au/fie
Impacts from such targeted outreach activities?

1. High calibre young leaders understand the value of engineering. They are **inspired to become engineers**, or pursue other careers (including sciences) but **appreciate the role of engineers** in the future.

2. **Young leaders influence their peer networks** at school and in other networks (sports teams etc), enhancing exposure to and interest in engineering as a career amongst students.

3. Direct engagement with the teachers and “pathway planning” officers that influence the decisions that student make re subjects and careers.

4. **Resources** directed to this program become available for other outreach-focused initiatives. Eg. An “engineering in your community” bus tour product developed for the FiE is now being used by the WiE Tasmania group.

5. **Members and Industry see that EA is actively involved** in an issue that impacts them directly in communities across Tasmania, and that EA is playing a **valuable leadership role** in facilitating and catalysing strategic actions involving the key and high impact stakeholders.

6. **Successfully attracting girls** to engineering through the program (25% girls from across Tasmania, in 2012).

7. **Participants develop a strong link to EA** through the program and follow-up activities, and hopefully become EA members, Young Engineers and then mentors themselves in the future (in 10 years time!).
Within the education sector, Engineers Australia is the only stakeholder in Tasmania with interests in both:

a) the development of strong science and maths skills in the community (via school students), and
b) the recruitment/development of engineering professionals at all levels, short and long term; without any opinion/bias on discipline, interest area, academic institution, qualification, target audience, gender, age etc.

EA is therefore well placed to provide a “helicopter view” of all engineering-related programs and activities in Tasmania, that target school students from all stakeholders, and to lead or catalyse the creation or modification of programs to develop synergies and reduce gaps or inefficiencies.

Current actions are to identify and profile existing education-related activities in Tasmania (eg. Local programs like the FiE or from other stakeholders, or national programs such as Science and Engineering Challenge and Engineers Australia’s own EngQuest).

This information will be distributed via a Discover Engineering (Tasmania) web page hosted by Engineers Australia, with an associated Facebook page for pushing updates on the specific activities and programs that are relevant to Tasmania (eg. AEW, UTAS Open Days, entries for competitions).

The DET page will generally direct visitors to pre-existing information resources, from EA and other stakeholders (including Make It So, EngQuest, Engineer Your Career etc).

The “Discover Engineering” brand is being developed to serve as a one stop shop for Tasmanians for information on engineering and engineering careers, relevant education and outreach programs, and engineering-focused activities and organisations. The target audiences are school students and their parents, teachers, and careers advisors; also undergrad engineers, and Members who are asked questions about engineering by members of the Tasmanian community.
Engineers Australia & Tasmanian Education Department thank the following Companies for providing Mentors during 2011: