GENDER EQUALITY AND STEM
GENDER EQUALITY AND STEM

• STEM education pipeline
• Female representation in the oil and gas industry
• Why does gender equality matter?
• Strategies
SOUTH AUSTRALIAN STEM SUBJECT COMPLETIONS (STAGE 2 SACE)

SOUTH AUSTRALIAN STEM SUBJECT COMPLETIONS (STAGE 2 SACE)

For SA to achieve gender equity in advanced maths would require about 540 extra female student completions per year.
UNIVERSITY APPLICATIONS

Total preferences

- Engineering/Related Technologies
- Information Technology
- Natural Physical Sciences


14% decrease
PROPORTION OF FEMALES EMPLOYED, 2017

Source: WGEA collects data from non-public sector organisations with 100 or more employees that report to the Workplace Gender Equality Agency annually under the Workplace Gender Equality Act 2012.
Source: WGEA collects data from non-public sector organisations with 100 or more employees that report to the Workplace Gender Equality Agency annually under the Workplace Gender Equality Act 2012.
Source: WGEA collects data from non-public sector organisations with 100 or more employees that report to the Workplace Gender Equality Agency annually under the Workplace Gender Equality Act 2012.
ENGINEERS EMPLOYED IN AN ENGINEERING ROLE

Source: Engineers Australia, 2017, Engineers make things happen
GENDER EQUITY PAY GAP, 2017

ABS ANZSIC Industry categories

- All industries
- Financial/insurance
- Real estate
- Construction
- Oil and gas extraction
- Heavy and civil engineering

Source: WGEA collects data from non-public sector organisations with 100 or more employees that report to the Workplace Gender Equality Agency annually under the Workplace Gender Equality Act 2012.
GENDER EQUITY PAY GAP, 2017

ABS ANZSIC Industry categories

- All industries
- Financial/insurance
- Real estate
- Construction
- Oil and gas extraction
- Heavy and civil engineering

Source: WGEA collects data from non-public sector organisations with 100 or more employees that report to the Workplace Gender Equality Agency annually under the Workplace Gender Equality Act 2012.
WHY DOES GENDER EQUALITY MATTER?
WHY DOES GENDER EQUALITY MATTER?

- Diverse teams = diverse thinking
- The talent pool is deeper when we are more inclusive
- Increases retention and recruitment of skilled talent

HOW DO WE ACHIEVE EQUALITY?
## HOW DO WE ACHIEVE EQUALITY?

Employers with formal policy/strategy in relation to:

<table>
<thead>
<tr>
<th>Policy/Strategy</th>
<th>Oil &amp; Gas</th>
<th>All industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall gender equality policy</td>
<td>72.2%</td>
<td>54.2%</td>
</tr>
<tr>
<td>Gender pay equity objectives</td>
<td>52.9%</td>
<td>36.3%</td>
</tr>
<tr>
<td>Flexible working arrangements</td>
<td>33.3%</td>
<td>23.2%</td>
</tr>
</tbody>
</table>

Source: WGEA collects data from non-public sector organisations with 100 or more employees that report to the Workplace Gender Equality Agency annually under the Workplace Gender Equality Act 2012.
SUCCESSFUL STRATEGIES

- Build a strong case for change
- Role-model a commitment to diversity
- Redesign roles, normalise flexible work across all levels and genders
- Actively sponsor rising women
- Set a clear diversity aspiration, backed up by accountability

SUCCESSFUL STRATEGIES

- Build a strong case for change
- Role-model a commitment to diversity
- Redesign roles, normalise flexible work across all levels and genders
- Actively sponsor rising women
- Set a clear diversity aspiration, backed up by accountability

✓ Have lots of difficult conversations
SUMMARY

- The STEM skills and engineering pipeline has challenges
- A gender equity strategy is necessary for recruiting and retaining talent
- Start the conversations!
RESOURCES

Workplace Gender Equality Agency (WGEA)
South Australian Government Office for Women
Science in Gender Equity (SAGE)
South Australian Certificate of Education (SACE)
Science and Mathematics completion rates by year

For SA to match national rates in advanced maths would require about 490 extra student completions per year (a 50% increase).
South Australian Certificate of Education (SACE)
Science and Mathematics completion rates by year

For SA to match national rates in advanced maths would require about 490 extra student completions per year (a 50% increase).
For SA to achieve gender equity in advanced maths would require about 540 extra female student completions per year.
UNIVERSITY APPLICATION PREFERENCES BY BROAD FIELD OF EDUCATION

Total preferences

- Engineering/Related Technologies
- Information Technology
- Natural Physical Sciences

UNIVERSITY APPLICATION PREFERENCES BY BROAD FIELD OF EDUCATION

Total preferences

Engineering/Related Technologies

Information Technology

Natural Physical Sciences

14% decrease

The engineering pipeline

Engineers Make Things Happen
The need for an engineering pipeline strategy
The engineering pipeline

Between 2006 and 2011 census, 71.4% of the increase in the supply of engineers was from skilled migration.

2006 → 71.4% → 2011

Engineers Make Things Happen

The need for an engineering pipeline strategy