



The Sustainable Engineering Society

...engineering in harmony with ecology

SENG STRATEGIC PLAN – 2016 - 2018

The Sustainable Engineering Society (SENG) Strategic Plan assists the Society to govern and direct activities in a manner that best meets the purpose of the Society as defined in the SENG constitution. The SENG constitution is itself subject to the Engineers Australia (EA) Charter.

Current Mission: To provide a national focus and leadership within the engineering profession for the implementation of sustainability for the benefit of members and Australian society.

The Strategic Plan is intended for 'on the ground' use at both a state and national level and consists of the following domains:

1. Community Engagement
2. Body of Knowledge and Professional Development
3. Leadership and Influence
4. Recognition, Promotion and Membership
5. Education and Qualification

The Strategic Plan is aligned with the Engineers Australia (EA) Plan to ensure that what we do as a Society is relevant to EA. It provides a common reference point to assist each state chapter with the annual development, communication, operations and delivery of their respective programs and CPD for local members.

SENG recognises that:

- Society and the economy are 100% dependent on the environment;
- The environment is in a serious state of on-going decline;
- Endless growth in material consumption and waste generation is simply unsustainable;
- Many engineering endeavours have contributed greatly to human development however,
- Many engineering endeavours have also contributed to the decline in ecosystems.



The Sustainable Engineering Society

...engineering in harmony with ecology

SENG endeavours to:

- Ensure that a full life cycle analysis and costing is embedded into all discipline practice;
- Ensure that opinions are evidenced based and built on rational analysis;
- Work with the natural systems to ensure sustainability and achieve a state of dynamic equilibrium;
- Ensure engineers are part of the solution NOT part of the problem;
- Ensure that society becomes sustainable and thrives for thousands of years.

Mission (*what we exist for*): To raise critical issues on sustainability and provide practical solutions for a sustainable future

Vision (*what we aspire to achieve*): To have the Engineering profession delivering sustainable outcomes for Community and Planetary benefit



The Sustainable Engineering Society

...engineering in harmony with ecology

STRATEGY

1. Community Engagement

Engagement with the internal engineering community and the broader outside community.

Objectives:

- Raise the profile of sustainability; it is the biggest issue facing our civilization, and failure to act would result in collapse;
- Embed sustainability into all engineering practice, through developing a CoP manual and guidelines. Include a measureable definition, risk, LCA, economics, externalities, discipline integration;
- Facilitate community involvement issues of engineering and sustainability;
- Ensure that sustainability is a top agenda item for the EA board.

Suggested activities:

- Encourage EA to release updated policies and a manual on sustainability;
- Release policy and media statements – written or oral;
- Hold events separately or co-hosted: seminars, symposiums, conferences, festivals or stalls;
- Liaise with government in conjunction with EA Media where applicable;
- Focus attention on groups that are not sustainability aware
- Attend 'other' conferences and speaker events;
- Ensure policy statements are distributed to the wider community.



The Sustainable Engineering Society

...engineering in harmony with ecology

STRATEGY

2. Body of Knowledge and Professional Development

Provide a robust and rigorous CPD framework. Support awareness of and conduct in accordance with the code of ethics

Objectives

- 2.1 To ensure that CPEng has a greater degree of sustainability as a core requirement;
- 2.2 Support engineers to diversify their skills and knowledge, and to equip themselves to work more effectively, gain a competitive edge and improve their career prospects;
- 2.3 Provide a mix of learning and training opportunities;
- 2.4 Enable learning anytime, anywhere – including but not limited to seminars, webinars, newsletters, and social media (also access to speaker presentations at Chapter level);
- 2.5 Ensure a high quality of materials (i.e. papers) made available (e.g. SENG website) through peer reviews, including guidelines to ensure seminar / conference paper standards ;
- 2.6 Raise relevance in the learning SENG supports by consulting with employers on their current and future needs;
- 2.7 Undertake CPD reviews and audits (Refer to Environmental College).

Suggested activities

- Develop a Council of Advisors from employers, with Executives at the highest levels;
- Articulate and develop the Sustainable Engineering CPD component;
- Push for 15 hrs Compulsory CPD of Sustainability;
- Use technology to make CPD recording and learning easier;
- Push for tangible, professional benefit for achieving qualification milestones;
- Promote and publicise SENG CPD in EA journals and in other industry journals.



The Sustainable Engineering Society

...engineering in harmony with ecology

STRATEGY

3. Leadership and Influence

Provide a respected voice for the profession to influence leaders and decision makers on public policy and wider community issues;

Objectives

- 3.1 Have a clear constitution, purpose and clarity of policy that can be used to influence;
- 3.2 Influence national policy and debate through liaison with EA or SENG;
- 3.3 Influence the EA Colleges, EA board and EA CEO and GMs to the critical nature of sustainability and climate
- 3.4 Provide leadership and direction for the profession through our actions and interactions;
- 3.5 Provide expert advice through media outlets.

Suggested activities

- Encourage, support and foster a deep understanding of sustainability at EA board level.
- Ensure that EA include sustainability is seen to be a core issue in line with the Code of Ethics with regular coverage and attention;
- Review the constitution, mission and objectives;
- Summarise it into a one-page charter for ease of distribution internally and externally;
- Build awareness through leadership at events, advisory bodies, government and business and release of media and policy statements.



The Sustainable Engineering Society

...engineering in harmony with ecology

STRATEGY

4. Recognition, Promotion and Membership

Grow membership by being relevant and attractive.

Objectives

- 4.1 Increasing membership numbers and maintaining current members;
- 4.2 Provide value for money/privileges for members;
- 4.3 Build awareness of the role engineers have in achieving sustainability;
- 4.4 Influence students to choose this as a career option;
- 4.5 Provide recognition for members of SENG.

Suggested activities

- Upgrade website to have section for members only;
- Capture Board & AGM Minutes, Papers, Seminar Programs & Presentations, Case Studies;
- Include video links, inspirational content to engage visitors (e.g. YouTube, Yoink, Kiva, Music, Events & Festivals, Member's stories);
- Make the website a valuable resource people want to use;
- Provide a magazine or equivalent forum to provide regular news, articles to members;
- Annual SENG awards for students, graduates and experienced engineers.



The Sustainable Engineering Society

...engineering in harmony with ecology

STRATEGY

5. Education and Qualification

Currently formal Education and Qualification is the domain of the Environmental College, however SENG to liaise with the college on a case by case basis.

Objectives

5.1 Consider where 'sustainability' education and qualification is required and applicable, but falls outside the scope of the Environmental College.

Suggested activities

- Discussion to discuss how the disciplines of mechanical, electrical, civil, chemical engineering could obtain sustainability qualifications.

NB1. The domains align with EAs domain structure adopted in 2014. This structure has changed, and is likely to change again. SENG will wait for the final EA 2016/17 version before changing format.