



Updating the Vision for the Future of Structural Engineering

A Challenge for Younger Professionals

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We are facing critical challenges that will affect the future of our profession. For our younger professionals – what should we be doing to make the Structural Engineering Profession not only survive these changes, but thrive for the duration of your career and for those that follow?

The challenge is to respond to changes that will impact our profession and ensure that our profession stays robust and relevant. Many of these changes are already affecting how we do business. It is important to note that we do not control these changes, but we *do* have to respond to them. It would be easy to continue with the daily routine of practicing structural engineering and not notice these changes, except when forced to react. However, being reactive does not help us to control our future. **Engineers are excellent planners – let's be proactive, and plan and engage to positively impact the future of our profession.**

Some of the changes that will impact us include rapid advances in technology that could end up replacing some of our workplace skills; increasing complexity in the building codes and standards; the increasing need and demand for continuing education; the changes in global access to structural engineering technology and skills; increasingly interdependent global economies; the increasing demand for more courses in our structural engineering education programs; and our increasing responsibilities in the design and construction industry.

Ten years ago, the SEI Board of Governors recognized these coming changes and took steps toward addressing them. The first step was to conceptualize the vision of the profession in the future. They created this *Vision Statement*. It, in part, states:

In 2033, The Structural Engineering Profession will be:

- A unique, fully engaged profession with a strong identity,
- Recognized for the contributions of the profession,
- Stewards of the built environment, and
- Attractive to the best and brightest.

The second step was to identify potential changes and develop initiatives to help us achieve our vision. In 2011, the Board formed a follow-up Task Force to specifically identify topics and strategic issues to consider for action. The document, *A Vision for the Future of Structural Engineers: A Case for Change*, was the result. That group identified several initiatives:

- Reform structural engineering education.
- Improve mentoring and continuing education.
- Strengthen our role as global leaders in the structural engineering profession.

- Promote performance-based codes and standards.
- Lead multi-disciplinary summits on technical matters of broad interest.
- Promote structural engineers as leaders and innovators.
- Advocate for structural engineering licensure.

Ten years have now passed since SEI adopted the *Vision Statement*, and five years since the Board accepted the *Case for Change* report. How much progress has been made? Are we on the right track? Do

the vision need to be modified? What needs to be done to make it happen? Those are among the questions that we must continue to ask as we march forward from where we started in 2008.

In the fall of 2017, another Board of Governors' Task Force was formed to review, check progress, and update the *Case for Change* document, and I am honored to be chairing that group. Our approach has been to first review the activities to-date associated with each of the initiatives identified in the document. Also, we have collected data from the previous efforts, led a panel discussion at the 2018 Structures Congress, and

conducted a survey of the conference attendees. We have completed personal interviews of the original *Case for Change* task force members and have engaged with the specific groups that are responsible for each of the initiatives listed above.

The initiatives included in the *Case for Change* document are far-reaching. It has also become apparent that some additional initiatives may need adoption, including support of diversity and more emphasis on technology changes.

It is extremely important to continue to monitor our vision and adjust as necessary. The world is changing, especially with the ever-accelerating advances in technology and our "shrinking" global industries. SEI especially needs help with the initiatives involving mentorship, technology, promotion of SEs as leaders and innovators, and diversity.

This is where YOU come in. We need your help, your energy, and your perspective. Some of us "seasoned" professionals will undoubtedly be retired by 2033, so it is even more critical for those that will still be practicing – and leading our profession. We not only need our young professionals' input but, even more, your leadership. **Will you accept the challenge?**



Check out *A Vision for the Future of Structural Engineers: a Case for Change* at <https://bit.ly/2M1QVXq> and SEI Futures Fund efforts to support the Vision at www.asce.org/SEIFuturesFund

Would you like to get involved, or do you have some comments? Contact SEI Director Laura Champion at lchampion@asce.org or SEI President-Elect David Cocke at dcocke@structuralfocus.com.