



Strategic Plan for 2017 and beyond

ACS is a congressionally chartered not-for-profit 501(c)3 scientific society. The Society is committed to being a strong and sustainable organization, maintaining adequate financial resources and adhering to financial stewardship principles that will ensure its ability to accomplish the ACS goals today and into the future.

VISION

Improving people's lives through the transforming power of chemistry

MISSION

Advancing the broader chemistry enterprise and its practitioners for the benefit of Earth and its people

CORE VALUES

In everything we do, we are committed to the following core values:

- **Passion for Chemistry and the Global Chemistry Enterprise**
We believe in the power of chemistry and the chemical enterprise to provide solutions to the world's most pressing problems. We promote the health of the chemical enterprise by supporting investments in education, training, entrepreneurship, research, and innovation.
- **Focus on Members**
We provide programs, products, services, and experiences that make ACS indispensable to the success of our members and others in the global chemistry enterprise. Celebrating and recognizing the achievements and contributions of ACS members is crucial to the Society's member-value proposition.

- **Professionalism, Safety, and Ethics**

We support and promote the safe, ethical, responsible, and sustainable practice of chemistry coupled with professional behavior and technical competence. We recognize a responsibility to safeguard the health of the planet through chemical stewardship.

- **Diversity and Inclusion**

We believe in the strength of diversity in all its forms, because inclusion of diverse people, experiences, and ideas leads to superior solutions to world challenges and advances chemistry as a global, multidisciplinary science.

GOALS

Results from 2016-2017 national elections worldwide (e.g. UK/EU and US in 2016, others in 2017) will create uncertainty and possibly impact all four ACS goals. ACS will marshal its unique resources to:

Goal 1: Provide Information

Deliver the most authoritative, comprehensive, and indispensable chemistry-related information and knowledge-based solutions to resolve global challenges and to address issues facing the world's scientific community.

ACS will be the most trusted source of chemistry-related information. The Society will provide products and services including high-quality journals and periodicals, databases, and meetings that advance the practice of chemistry and related sciences. Through creative collaborations, transformative technologies, and best practices, ACS will ensure that its information products and services are the most authoritative, indispensable, and accessible to chemical professionals addressing the world's challenges.

Challenges & Opportunities

- There are unprecedented constraints on U.S. government funding for scientific research and education
- The worldwide recovery from the Great Recession continues—but progress is slow.
- Globalization of the chemistry enterprise continues, with students, members, and other chemistry-related professionals increasingly located in emerging markets, including Brazil, Russia, India, China and South Korea. This trend provides an opportunity to restructure and/or diversify information and knowledge-based solutions and to establish a globally based workforce to serve worldwide members and other customers.

- The number and scope of open access mandates by research funders are growing, as are attempts to coordinate between different groups such as research funders or publishers. For example, one effort to organize the transition to open access is the Clearinghouse for the Open Research of the United States (CHORUS); ACS is a member of this group. Outside the U.S., the ACS Publications Division is engaged in open access matters emerging in the U.K. and European Union, as well as China and elsewhere in Asia.
- Chemistry-related information sources, including free resources, are increasing. Customers' expectation of more personalized offerings from organizations is growing, along with the technology that enables personalization.
- Curating content for customers is growing in importance as a way to manage the expanding sources and content of information.
- Information exchange through online technologies (hybrid, virtual, social, and mobile) is increasingly supplementing face-to-face meetings.
- Cybersecurity threats to the collection, distribution, and protection of information are increasing.
- Predictive/AI (artificial intelligence) technology and ontologies are emerging and evolving in the scientific information research space.
- Regional and political unrest is growing in Asia and the Middle East (particularly in China, Turkey, and Syria).

Objectives

1. Strengthen the ability of CAS and ACS Publications to provide unparalleled information to the global scientific community.
2. Position ACS as the lead organizer, in cooperation with other chemistry society and publisher partners, of a preprint server initiative.
3. Position the ACS appropriately in countries and regions of increasing importance to the future of the chemical enterprise, taking into consideration the full span of ACS activities.

Goal 2: Empower Members and Member Communities

Provide access to opportunities, resources, skills training, and networks to empower our members to thrive in the global economy. Encourage and support member communities worldwide — both traditional, established communities as well as limited-lifetime, self-organizing communities—as they work to achieve ACS goals.

ACS will develop and provide resources to enable chemistry-related professionals to succeed in the global scientific enterprise. The Society will support members in their quest for technical competence, a strong ethics and safety culture, and professional advancement. ACS will also help members form and maintain communities worldwide — both traditional,

established communities as well as limited-lifetime, self-organizing communities — as they work to collaboratively address the major chemistry-related problems of our time.

Challenges & Opportunities

- Despite increasing awareness of the importance of having an active safety culture in the workplace, some practitioners see safety as interfering with success.
- Employers of chemists are increasingly diverse, smaller, and more service-oriented (for example, contract testing labs or analytical services versus research or innovation-focused companies).
- The wider mix of jobs held by chemistry-related scientists and the growing multidisciplinary nature of science is causing fewer scientists to identify themselves as chemists.
- A mismatch exists between the current training of new graduates and the jobs available.
- Chemistry-related companies increasingly require external R&D partnerships to innovate.
- A general decline in association membership is occurring. Membership decisions are increasingly based more on personal return than support for the profession or greater good.
- Members want more targeted, mobile, and video resources and messages.
- Online technologies are being integrated with onsite meetings and courses.
- Constraints on volunteers (including greater job demands, less time given by employers for volunteer activities, and expectations of 24/7 connectivity) warrant new tools and support to facilitate volunteers' work and grow their ranks.
- Customers increasingly expect services to be customized to their needs.
- The millennial generation will shape future management styles, culture, and expectations.
- Globalization and the changing demographics and needs of the chemistry enterprise are redefining diversity and offering associations opportunities to assist in that transformation.
- ACS alliances to advance mutual goals -- including with ACS technical divisions, local sections, international chapters, and peer societies -- are increasing in importance.
- The value proposition for membership has been disrupted by social, economic, and technological changes. This demands more targeted services, creative recruitment/retention strategies, and evaluation of alternative membership models.
- Global industrial acquisitions, consolidations, and closures are expected to remain prevalent. Companies are focusing more on developing their core strengths and are looking to acquisitions to deliver growth and greater shareholder value.

Objectives

1. Increase and communicate the value of ACS membership, leading to strong recruitment and retention of members.
2. Organize a series of workshops to familiarize graduate students, postdoctoral scholars and faculty members with career planning through the new Individual Development tool, ChemIDP™.

Goal 3: Support Excellence in Education

Foster the development of innovative, relevant, and effective chemistry and chemistry-related education.

ACS will support reforms and initiatives that result in highly effective chemistry education, safer laboratory practices, and a pipeline of technically competent, ethical, and competitive chemists ready to address global challenges. Through educational resources, instruction, and mentorship, ACS and its members will promote principles of safety and ethics throughout pre-college, undergraduate, graduate, and post-graduate education. The Society will promote the development and dissemination of evidence-based practices in chemistry education to foster a scientifically literate citizenry and ensure a highly qualified chemical workforce.

Challenges & Opportunities

- U.S. students must excel in STEM subjects to contribute to societal needs, yet they score low in international tests of STEM achievement.
- ACS is positioned to address issues in science and technology education through a multitude of education, public policy, and outreach activities.
- Enhanced or new partnerships and collaborations can strengthen ACS efforts to advocate for STEM education and reform and elevate chemistry's prominence within the STEM disciplines.
- The U.S. needs to attract chemistry teachers at all levels, provide them with access to high quality professional development opportunities, and strengthen their qualifications. ACS increasingly has access to thousands of teachers through resources such as AACT, middleschoolchemistry.com, high school ChemClubs, and ACS Hach programs.
- Educators need an authoritative source for best practices in classroom and laboratory safety.
- Online educational platforms are broadening access to higher education and redefining subject mastery, including competency-based degrees and credentials (for example, through new testing systems or different requirements for completing courses or a degree program).

- Funding pressures are changing all aspects of education. Examples include the move to online textbooks, reduced hands-on laboratory experience, and increased use of adjunct and non-tenure-track faculty.
- Funding for academic research is increasing outside the U.S., and some U.S. scientists are moving their labs abroad in response to incentives offered by non-U.S. countries.
- Politicization of science education is on the rise.
- Regional unrest in developing regions is interfering with education. For example, in Turkey, tens of thousands of staff members in the education sector alone have been suspended or dismissed.

Objectives

1. Inventory chemical safety resources across the Society and launch a website that houses chemical safety resources.
2. Increase membership in the American Association of Chemistry Teachers (AACT) for K-12 teachers of chemistry and expand the online resource library.

Goal 4: Communicate Chemistry's Value

Communicate — to the public and to policymakers — the vital role of chemical professionals and chemistry in addressing the world's challenges.

ACS will lead in communicating the value of chemistry. The Society will also encourage and support the active participation of members in public outreach efforts by providing training, connections, venues, and other assistance. In collaboration with other professional organizations ACS will advocate for support for science, engineering, innovation, and chemical stewardship. Through its advocacy efforts, the Society will encourage the creation and retention of chemistry-related jobs.

Challenges & Opportunities

- Members of the public are often unaware of chemistry's positive impact on their lives and accept inaccurate sound bites as fact.
- Moving the needle on public science appreciation and literacy is difficult and expensive to measure and achieve.
- U.S. policymakers often see science as mere opinion, rather than a curated body of established principles and observations.
- Expanding partnerships between ACS and other groups involved in improving public appreciation of science and engineering present an opportunity for greater impact.
- Scientists, engineers, and others can be encouraged to lead in communicating how chemistry can solve global challenges and improve people's lives.

- Global economic and government budget constraints are impacting research output and demand. In particular, U.S. government funding for scientific research and education is facing unprecedented limitations.
- As the world's population increases, natural resources are coming under greater pressure, often exacerbated by climate change. The chemical sciences are increasingly central to development of solutions to the global challenges of energy, environment, water, health, and food.

Objectives

1. Secure coverage of press conferences and releases associated with ACS national meetings. Also produce, distribute and secure placements/coverage of ACS videos and ACS PressPacs.
2. Expand and leverage efforts to place ACS members in public dialog with news media, policymakers, opinion leaders, and the general public.
3. Empower ACS members and allied organizations to communicate key ACS policy priorities with policymakers. Implement key ACS policy priorities through legislative or executive branch initiatives.

Definitions for the terms used above can be found below.

VISION

Vision statement expresses the desired future state when the Society has achieved its mission. A vision is concise, inspiring, motivating, energizing, core values-oriented, and futuristic by tapping into what we wish the future would be.

MISSION

Mission statement asserts the Society's and its subunits' purpose and reason for existing as the ACS in terms of who it is, what difference it will make, what it will do, and how it will do it. It is short, clear, easily understood, and believed in by the members.

CORE VALUES

Core Values are the underlying, fundamental, deeply ingrained beliefs of the Society that guide how all ACS staff and volunteers act and conduct their work to fulfill the ACS mission and vision. Core Values are the essence of the Society's identity, support the vision, define the ACS culture, and reflect what drives ACS work.

GOALS



Goals are broad, ambitious outcome statements or directional themes to be achieved to advance the ACS vision and mission. These outcome statements serve as guides for the choice of specific objectives and strategies for ACS staff and volunteers of the Society.

CHALLENGES

Challenges are the identified internal weaknesses of the Society and external threats to ACS or its subunits from the Environmental Scan (EScan) of the landscape external to the Society unit in question that need to be considered in formulating goals and objectives.

OPPORTUNITIES

Opportunities are possibilities identified when the Society or its subunits do an EScan of the external landscape and finds these favorable to achieving the ACS mission and goals.

OBJECTIVES

Objectives explain how goals will be accomplished by describing what achievements must be completed by a specified time for goal attainment.