

COMMENT

Global engagement: A competitive advantage in the practice of chemistry

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A scaffold is defined as a temporary structure used to support a work crew and materials to aid in the construction, maintenance, and repair of buildings, bridges, and other structures. Scaffolds are rarely independent structures and have been used for a long time.

So how does scaffolding relate to the American Chemical Society? ACS's scaffolding is the 2017 Strategic Plan, a plan that calls for greater and more refined global engagement in several ways.

First, we need to ask ourselves some key questions. These questions are our scaffold to a strong future:

- ▶ What capacities and networks does the Committee on International Activities (IAC) bring to ACS's efforts to adapt to better serve chemistry communities and professionals worldwide?
- ▶ How is ACS positioned to recruit and retain members and help them be competitive in the global chemistry enterprise and advance professionally through ACS services, such as networking and training?
- ▶ For our chapters, members, and prospective members overseas, what role can ACS play in supporting continuous enhancement of member-facing, globally focused information technology and solutions?
- ▶ As ACS contemplates improving diversity and inclusion in the chemistry enterprise, how is ACS positioned to bring a global perspective to this effort?

Second, just as a scaffold must be anchored to a permanent structure, we need to explore the megatrends in the global chemistry enterprise. These megatrends include slowing economies, currency and market volatility, and results from national elections worldwide that create uncertainty and impact our members, the chemistry enterprise, and our delivery on ACS goals. Another megatrend is scientific mobility: The 974,000 international students in the

U.S., with 44% of them enrolled in science, technology, engineering, and mathematics fields, exemplify the need to look outward.

Third, we need to consider ACS trends. ACS communities have grown considerably. The number of ACS editors who work outside the U.S., for example, has increased considerably, as has the volume of ACS journal articles authored by international researchers. More than 25,000 members live outside the U.S., a number that is amplified when considering international members who are studying, researching, and lecturing in the country.



A call to action

We need to critically examine all ACS member services with a view to strengthen and expand our programs for the next generation of global citizens and to broaden the society's global reach. We need to

- ▶ Proactively advocate, initiate, and implement ACS international activities.
- ▶ Provide ways for our members and prospective members to get involved through initiatives that transcend revenue targets; to address global challenges through chemistry; and to develop a broad scientific understanding, appreciation of chemistry, and promotion of the image of chemistry.
- ▶ Develop and implement truly global activities that are science driven and advance the interests and priorities of ACS member-volunteers with global interests and thus measurably, with impact and meaning, fulfill Article II, Section 3 of the ACS constitution: "The SOCIETY shall cooperate with scientists internationally and shall be concerned with the worldwide application of chemistry to the needs of humanity."

IAC's roles

The roles of IAC in support of international growth are our 2017 priorities. IAC

aims to be:

- ▶ An activator of networks and relationships to further a global culture of responsible conduct and lab safety.
- ▶ A convener and information channeler to help in visioning, that is, telling others what we hear from chemists, chemical engineers, and chemistry educators with global interests.
- ▶ A catalyst to help ACS communities become competitive in their global practice.
- ▶ An incubator of programs, services, and activities within the broader chemistry enterprise.
- ▶ An initiator of opportunities to bring a global dimension to ACS innovation and entrepreneurship engagement efforts.

Going forward

The ACS scaffold is now ready to be removed and the permanent and lasting structure of the ACS Strategic Plan to be disclosed. The mantras of "connections" and "relationships" are key: In the pursuit of return on investment in our global activities, let's not lose sight of the intrinsic value of global relationships between and among scientists, engineers, and educators. These relationships and connections are vital to transcending political, economic, and cultural barriers.

Haphazard international growth will always happen. However, it can be improved by planning and by being open and welcoming to diverse perspectives.

As ACS engages internationally, let's not confuse movement (that is, moving purposefully from one place to another) with motion (that is, not standing still).

It is my hope that the insights and sentiments in this Comment will inform and produce an effective global organization, inspired by a commitment to building and improving our relationships and connections. And I hope these efforts will be dedicated to ACS's mission of "advancing the broader chemistry enterprise and its practitioners for the benefit of Earth and its people."

Views expressed are those of the author and not necessarily those of C&EN or ACS.