

COMMENT

How chemistry can help meet the UN's sustainable development goals

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In the fall of 2015, the United Nations General Assembly adopted a new sustainable development agenda, which includes 17 sustainable development goals (SDGs) to end poverty, protect the planet, and ensure prosperity for all. If achieved, these 17 goals will fundamentally change the world for the better.

Why am I writing about these goals in a Comment for C&EN?

It's simple: The chemical enterprise has a unique role to play in reaching these goals. Chemistry offers a broad spectrum of products and services essential to our daily lives that are safe, sustainable, and environmentally sound. Chemistry also enables more efficient use of our natural resources, increases energy efficiency, allows for reduced greenhouse gas emissions, finds new uses for current waste products, and is at the forefront of the development of sustainable materials.

Advances in chemistry have been, and will continue to be, instrumental in increasing agricultural production to feed a growing world population, providing safe drinking water, and preventing and treating disease.

In short, chemistry is going to have to play an essential role if we are to meet these goals.

There is no way to achieve the SDGs without the support and active participation of the private sector, and I'm pleased to say that, since their launch, the SDGs have been adopted by a wide range of businesses as they try to capture their efforts in corporate sustainability. In fact, business in general will have a significant say in whether we are to meet these goals.

One of the barriers to the implementation of sustainable chemistry is strong integra-

tion and acceptance throughout the supply chain. Despite many individual single-product or single-company successes, or a few advances in limited sectors' supply chains, there is still a need for widespread agreement on sustainability goals and cooperation throughout supply chains.

The ACS Committee on Environmental Improvement, in partnership with the ACS Green Chemistry Institute (GCI), is working on several projects



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related to the SDGs and the chemical enterprise. Next month, at the 22nd Annual Green Chemistry

& Engineering (GC&E) Conference in Portland, Ore., a one-day workshop will focus on integrating green and sustainable chemistry into the supply chain of formulated personal care and household products.

The workshop will build on related conversations at the 2017 GC&E conference and a 2015 article by the ACS GCI Formulators' Roundtable titled “Opportunities for Greener Alternatives in Chemical Formulations.” The committee is looking to distill the learnings from individual successes into a plan for

widespread adoption.

Workshop sessions will explore (1) how to drive change, with lessons from past successes; (2) goals, barriers to achieving those goals, and consensus on what success looks like; and (3) developing a plan forward, including recommendations.

The format of the workshop will be interactive, including invited talks as well as brainstorming and problem-solving sessions. The goal is to develop a plan (and publication) to better incorporate

sustainable chemistry into the supply chain.

If you're attending the GC&E conference, I hope you'll join us for the workshop. If not, you're not off the hook. We need you to help communicate the SDGs. The public needs to know that the SDGs exist and understand its role in helping achieve the goals.

The goals offer an agenda for countries in both the developed and developing world, and we need to ensure that their implementation is universal, integrated, interconnected, inclusive, and science based.

Green and sustainable chemistry and engineering is going to play a key role in making sure the goals address the broad categories of ending poverty, fighting inequalities and injustice, and tackling climate change. For the goals to be achieved, everyone needs to do their part, and that includes governments, the private sector, and people like you. What will you do to change the world?

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

United Nations sustainable development goals.

