

## Americas Workshop Summary

Some problems are hard to solve because the solutions aren't clear. Some problems are hard to solve because there are many possible solutions. For identifying and defining engineering biology metrics and technical standards, it is a mix of both. Yet that is what the Task Force on Engineering Biology Metrics and Technical Standards for the Global Bioeconomy hopes to achieve. To give a sense of the challenge they face, consider this comment from a recent workshop participant to a room of colleagues, "Most of the time, standards are a pain." None of the conferees rose to disagree. Yet in the very next breath, they added, "standards are essential, and I use them all the time." There was no disagreement about that, either. For many workshop participants, it was the first chance they had to describe how the right standards could speed innovation and lower barriers to technology transfer, whether they were running a startup, working for a more mature biotech company, or in a regulatory agency. No one questioned the value of standards and metrics; the challenge was to identify broadly useful ones.

Hosted by the Engineering Biology Research Consortium (EBRC) and the National Institute of Standards and Technology (NIST), this "Americas Workshop" on Engineering Biology Metrics and Technical Standards, included an evening reception at the Cosmos Club in Washington D.C. on June 7th, 2023, followed by two days of technical programming at the Institute for Bioscience and Biotechnology Research in Rockville, Maryland on June 8th and 9th. The Americas Workshop was the first in a series of three, aiming to capture the diverse needs of experts representing the engineering biology industries in the Americas, Asia and Australia, and Europe, being held in the Washington D.C. area, Singapore, and Brussels, respectively. A strategic report will culminate from the findings and recommendations from the workshops. The report will aim to identify the specific metrics and standards that can accelerate commercialization in the bioeconomy, and assess whether there is any global consensus that can be reached on the matter. This project is led by the Task Force, which comprises representatives from the EBRC, NIST, the National University of Singapore, Imperial College London, and Schmidt Futures.

The Americas workshop welcomed participants from four countries in North and South America, though participants were predominantly U.S.-based. 38 organizations were represented; including 33 with technical representatives in attendance and six U.S. federal agencies. In total, some 60 attendees from industry, academia, and the U.S. federal government engaged in passionate and thoughtful dialogue about what standards and metrics are needed in their industries and fields. The technical content consisted of a day of brief presentations interspersed with panel and audience discussions on topics including upstream processing, downstream processing, scale up, data sharing, process development, and more; and a day of breakout sessions that enabled more in-depth discussions on those topics, and beyond. Details of the workshop discussions will be made available in the final strategic report after the conclusion of all three workshops, so as to not bias discussions in one region with priorities from another.