

Asia/Australia Workshop Summary

In a global endeavor to advance the field of Engineering Biology, a series of workshops has emerged as a vital platform for forging consensus on technical standards and metrology. The Asia & Australia Workshop, following the successful Americas Workshop, brought together key stakeholders in the region at the Shangri-La Rasa in Sentosa, Singapore. From the 29th to the 31st of August 2023, nearly 40 attendees from 13 countries and various sectors — including industry, academia, and government — engaged in dynamic discussions to harmonize metrics and standards in this rapidly evolving field.

Hosted by the National University of Singapore (NUS) and the Singapore Consortium for Synthetic Biology (SINERGY), the Asia & Australia Workshop on Engineering Biology Metrics and Technical Standards, marked a significant step in the global effort to outline essential standards and metrics for engineering biology. This workshop shed light on the challenges and opportunities posed by standards and metrics in engineering biology in the region. Participants overwhelmingly acknowledged the importance of establishing standards in Engineering Biology, despite the complexity of defining the problem space. There was a shared belief that standards are a linchpin for innovation, although the exact path toward achieving this goal is still being developed. As one participant aptly noted, "**We need to do something... pick a few things to start.**"

A key focus of the workshop was the collaborative dialogue among stakeholders about existing standards, vital for establishing a foundational framework. Additionally, there was a clear consensus on the need to standardize the increasing volume of biological data generated worldwide. The success of standard-setting efforts in medical imaging, genomics, and genome editing, served as a powerful example, illustrating the potential of community-driven standardization initiatives. Productive discussions led to several action items and collaborative initiatives, including harmonizing data formats under the Global Biofoundry Alliance's potential leadership, promoting data sharing and collaboration between academia and industry, and emphasizing the roles of regional organizations like ASEAN in shaping the vision for engineering biology standards. In the coming months, we anticipate more regional initiatives with clear structures and objectives to further advance standardization.

As part of a broader series of workshops across the Americas, Asia & Australia, and Europe & Africa, the action items underscore the commitment to fostering cooperation and openness within the global Engineering Biology community. The outcomes of these workshops will not only advance the broader global discussions on engineering biology standards but also contribute to a joint strategic report led by the Task Force on Engineering Biology Metrics and Technical Standards, comprised of representatives from EBRC, NIST, the National University of Singapore, Imperial College London, and Schmidt Futures.